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**CURRICULUM VITAE**  
**Research, Development, and Dissemination of**  
**Individual Growth and Development Indicators**  
**and**  
**Multi-Tiered Systems of Support in Early Childhood**

**IGDILab**  
**Universities of Minnesota, Oregon, Washington, Utah State, and Lehigh University**  
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**Publications**

**Refereed Articles**

2022

- Durán, L., Wackerle-Hollman, A., Miranda, A., Chávez, C. Pentimonti, J., Zyskind, K., & Rodriguez, M. C. (2022). Spanish and English oral language growth rates of bilingual preschoolers: The effect of language of instruction. *Learning Disabilities Research and Practice*. DOI: 10.1111/ldrp.12287
- Thomas, L., Lee, M., Todd, C., Lynch, K., Loeb, S., McConnell, S. R., & Carlis, L. (In press, 2022). Navigating remote delivery of assessments for Head Start children during the COVID-19 pandemic. *Journal of Early Intervention*

2021

- Wackerle-Holman, A. K. , Spencer, T., Meeker, K., Kelley, E., Durán, L., & Foster, M. (2021). Multi-tiered system of supports in early childhood: Identifying gaps, considerations for application, and solutions. *Early Childhood Research Quarterly*, 56, 201-212.  
<https://doi.org/10.1016/j.ecresq.2021.03.010>
- Wackerle-Holman, A. K. , Durán, L., Miranda, A., Chávez, C., Rodriguez, M. C., & Medina Morales, N. (2021). Understanding how language of instruction impacts early literacy growth for Spanish-speaking children. *School Psychology Review*.  
<https://doi.org/10.1080/2372966X.2021.1906620>

- Missall, K. N., Artman-Meeker, K., Roberts, C., & Ludeman, S. (2021). Implementing multi-tiered systems of support in preschool: Begin with universal screening. *Young Exceptional Children*, 24(4), 213-224.
- Alfes, C., Missall, K. N., & Artman-Meeker, K. (2021). Shared-book reading effects on number naming in preschoolers at-risk for early numeracy delays. *Infants and Young Children*, 34(2), 122-140.

## 2020

- Wackerle-Holman, A. K. , & Durán, L. K. (2020). Data-based decision-making to support language and early literacy skills in Spanish-speaking dual language learners. DEC Recommended Practices for Young Children and Families, monograph no. 7, 1–14. doi: 978-0-9905128-9-9
- Wackerle-Holman, A. K. , Durán, L., Miranda, A. (2020). Early literacy skill growth in Spanish-speaking children with and at risk for disabilities in early childhood. *Topics in Early Childhood Special Education*, 40(1), 24–38. <https://doi.org/10.1177/0271121420906469>
- McConnell, S. R. (2020). How can experiments play a greater role in public policy? Three notions from behavioral psychology. *Behavioural Public Policy*, 1-10. <http://dx.doi.org/10.1017/bpp.2020.18>
- Hendrix, N., Missall, K. N., & Hojnoski, R. L. (2020). Promoting numeracy skills through board game play. *Young Exceptional Children*, 23(2), 100-111. <http://dx.doi.org/10.1177/1096250618814239>
- Ford, A. L. B., Elmquist, M., Merbler, A.M., Kriese, A., Will, K. K., & McConnell, S. R. (2020). Toward an ecobehavioral model of early language development. *Early Childhood Research Quarterly*, 50, 246-258. <https://doi.org/10.1016/j.ecresq.2018.11.004>
- Buzhardt, J., Greenwood, C. R., Jia, F., Walker, D., Schneider, N., Larson, A. L., Valdovinos, M., & McConnell, S. R. (2020). Technology to guide data-driven intervention decisions: effects on language growth of young children at risk for language delay. *Exceptional Children*, 87(1), 74–91. <https://doi.org/10.1177/0014402920938003>
- Albano, A., McConnell, S. R., Lease, E. M., & Cai, L. (2020) Contextual interference effects in early assessment: Evaluating the psychometric benefits of item interleaving. *Frontiers in Education*, 5-133. <http://dx.doi.org/10.3389/educ.2020.00133>

## 2019

- Wackerle-Holman, A. K. , Durán, L., Brunner, S., Kohlmeier, T., Palma, J., & Rodriguez, M. C. (2019). Developing a measure of Spanish phonological awareness for preschool age children: Spanish Individual Growth and Development Indicators. *Educational Assessment*, 24(1), 33–56. <http://dx.doi.org/10.1080/10627197.2018.1545570>
- Durán, L. K., Wackerle-Holman, A. K. , Kohlmeier, T. L., Brunner, S. K., Palma, J., & Callard, C. H. (2019). Individual Growth and Development Indicators-Español: Innovation in the development of Spanish oral language general outcome measures. *Early Childhood Research Quarterly*, 48, 155–172.: <http://dx.doi.org/10.1016/j.ecresq.2019.02.001>

Albano, A. D., Cai, L., Lease, E. M., & McConnell, S. R. (2019). Computerized adaptive testing in early education: Exploring the impact of item position effects on ability estimation. *Journal of Educational Measurement*, 56(2), 437–451.  
<https://doi.org/10.1111/jedm.12215>

Will, K. K., McConnell, S. R., Elmquist, M., Lease, E. M., & Wackerle-Hollman, A.K. (2019). Meeting in the middle: Future directions for researchers to support educators' assessment literacy and data-based decision making. *Frontiers in Education*, 4, 106.  
<https://doi.org/10.3389/educ.2019.00106>

2018

Kincaid, A. P., McConnell, S. R., & Wackerle-Holman, A. K. (2018). Assessing early literacy growth in preschoolers using Individual Growth and Development Indicators. *Assessment for Effective Intervention*. <https://doi.org/10.1177/1534508418799173>

2017

Hojnoski, R. L., Caskie, G. I. L., & Miller Young, R. (2017). Early numeracy trajectories: Baseline performance levels and growth rates in young children by age and disability status. *Topics in Early Childhood Special Education*, 37, 206-218.  
<http://dx.doi.org/10.1177/0271121417735901>

2016

McConnell, S. R., & Wackerle-Holman, A. K. (2016). Can we measure the transition to reading? Relations among general outcome measures of language and early literacy development from preschool to early elementary grades. *AERA Open*, 2 (3) 2332858416653756;  
<http://dx.doi.org/10.1177/2332858416653756>

Laracy, S., Hojnoski, R. L., Dever, B. (2016). Assessing the classification accuracy of early numeracy curriculum-based measures using receiver operating characteristic analysis. *Assessment for Effective Intervention*, 41, 172-183.  
<http://dx.doi.org/10.1177/1534508415621542>

2015

Wackerle-Holman, A. K. , Schmitt, B., Bradfield, T. A., Rodriguez, M. C., & McConnell, S. R. (2015) Redefining Individual Growth and Development Indicators: Phonological awareness. *Journal of Learning Disabilities*, 48(5), 495 - 510.  
<https://doi.org/10.1177/0022219413510181>

Wackerle-Holman, A. K. , Rodriguez, M. I., Bradfield, T. A., Rodriguez, M. C., & McConnell, S. R. (2015). Development of early measures of comprehension: Innovation in Individual Growth and Development Indicators. *Assessment for Effective Intervention*, 40(2), 81-95.  
<https://doi.org/10.1177/1534508414551404>

Rodriguez, M. I. & Wackerle-Hollman, M. (2015). Bridging the gap: Comprehension Individual Growth and Development Indicators—The Which One Doesn't Belong task. *Assessment for Effective Intervention*. 40(2), 96-98. <http://dx.doi.org/10.1177/1534508414556505>

Missall, K. N., Hojnoski, R. L., Caskie, G., & Repasky, P. (2015). Examining home numeracy environments of preschoolers: Relations between mathematical activities, parent mathematical beliefs, and early mathematical skills. *Early Education and Development*, 26, 356-376. <http://dx.doi.org/10.1080/10409289.2015.968243>

- McConnell, S. R., Wackerle-Holman, A. K. , Roloff, T. A., & Rodriguez, M. C. (2015). Designing a measurement framework for response to intervention in early childhood programs. *Journal of Early Intervention*, 36, 263 – 280. <https://doi.org/10.1177/1053815115578559>
- Greenwood, C. R., Carta, J. J., Goldstein, H., Kaminski, R., McConnell, S. R., & Atwater, J. (2015). The Center on Response to Intervention in Early Childhood (CRTIEC): Developing evidence-based tools for a multi-tier approach to preschool language and early literacy instruction. *Journal of Early Intervention*, 36, 246 – 262. <http://dx.doi.org/10.1177/1053815115581209>
- Carta, J. J., Greenwood, C. R., Atwater, J., McConnell, S. R., Goldstein, H. & Kaminski, R. (2015). Identifying preschool children for higher tiers of language and early literacy instruction within a Response to Intervention framework. *Journal of Early Intervention*, 36, 281 – 291. <http://dx.doi.org/10.1177/1053815115579937> (Published online on April 7, 2015)
- 2014
- Bradfield, T. A., Wackerle-Holman, A. K. , Albano, A., Rodriguez, M. C., & McConnell, S. R. (2014). Redefining Individual Growth and Development Indicators: Oral language. *Assessment for Effective Intervention*, 39, 233-244. <https://doi.org/10.1177/1534508413496837>
- 2013
- Greenwood, C. R., Carta, J. J., Atwater, J., Goldstein, H., Kaminski, R., & McConnell, S. R. (2013). Is a Response to Intervention (RTI) approach to preschool language and early literacy instruction needed? *Topics in Early Childhood Special Education*, 33, 48 - 64. <http://dx.doi.org/10.1177/0271121412455438>
- 2012
- Roseth, C. J., Missall, K. N., & McConnell, S. R. (2012). Early Literacy Individual Growth and Development Indicators (EL-IGDIs): Growth trajectories using a large, internet-based sample. *Journal of School Psychology*, 50, 483 – 501. <http://dx.doi.org/10.1016/j.jsp.2012.03.001>
- Polignano, J. C., & Hojnoski, R. L. (2012). Preliminary evidence of the technical adequacy of additional curriculum-based measures for preschool mathematics. *Assessment for Effective Intervention*, 37, 70-83. <http://dx.doi.org/10.1177/1534508411430323>
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- Methe, S. A., Hojnoski, R. L., Clarke, B., Owens, B. B., Lilley, P. K., Politylo, B. C., White, K. M., & Marcotte, A. M. (2011). Innovations and future directions for early numeracy curriculum-based measurement: Commentary on the special series. *Assessment for Effective Intervention*, 36, 200-209. <http://dx.doi.org/10.1177/1534508411431256>
- Greenwood, C. R., Carta, J. J. & McConnell, S. R. (2011). Advances in measurement for universal screening and individual progress monitoring of young children. *Journal of Early Intervention*, 33, 254 – 267. <http://dx.doi.org/10.1177/1053815111428467>

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Hojnoski, R. L., Silbergitt, B., & Floyd, R. G. (2009). Sensitivity to growth over time of the Preschool Numeracy Indicators with a sample of preschoolers in Head Start. *School Psychology Review*, 38, 402-418. <http://dx.doi.org/10.1080/02796015.2009.12087823>

Hojnoski, R. L., Gischlar, K. L., & Missall, K. N. (2009). Improving child outcomes with data-based decision-making: Collecting data. *Young Exceptional Children*, 12, 32-44. <http://dx.doi.org/10.1177/1096250609333025>

Gischlar, K. L., Hojnoski, R. L., & Missall, K. N. (2009). Improving child outcomes with data-based decision making: Interpreting and using data. *Young Exceptional Children*, 13, 2-18. <http://dx.doi.org/10.1177/1096250609346249>

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Missall, K. N., Carta, J. J., McConnell, S. R., Walker, D., & Greenwood, C. R. (2008). Using Individual Growth and Development Indicators to measure early language and literacy. *Infants and Young Children*, 21, 241 - 254. <http://dx.doi.org/10.1097/01.IYC.0000324553.85187.dc>

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Wackerle, A. K. (2007). Test Review: Individual Growth and Development Indicators. *Assessment for Effective Intervention*, 33, 51-54. <http://DOI:10.1177/15345084070330010701>

Missall, K. M., Reschly, A., Betts, J., McConnell, S. R., Heistad, D., Pickart, M., Sheran, C., & Marston, D. (2007). Examination of the predictive validity of preschool early literacy skills. *School Psychology Review*, 36, 433-452. <http://dx.doi.org/10.1080/02796015.2007.12087932>

Hojnoski, R. L., & Missall, K. N. (2007). Monitoring preschoolers' language and early literacy growth and development. *Young Exceptional Children*, 10(3), 17-27. <http://dx.doi.org/10.1177/109625060701000303>

Cadigan, K., & Missall, K. N. (2007). Measuring expressive language growth in young children with autism spectrum disorders. *Topics in Early Childhood Special Education*, 27(2), 110-118. <http://dx.doi.org/10.1177/02711214070270020101>

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Missall, K. N., McConnell, S. R. & Cadigan, K. (2006). Early literacy development: Skill growth and relations between classroom variables for preschool children. *Journal of Early Intervention*, 29, 1 – 21. <http://dx.doi.org/10.1177/105381510602900101>

Floyd, R. G., Hojnoski, R. L., & Key, J. M. (2006). Preliminary evidence of technical adequacy of the Preschool Numeracy Indicators. *School Psychology Review*, 35, 627-644. <https://doi.org/10.1080/02796015.2006.12087967>

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Carta, J. J., Greenwood, C. R., Walker, D., Kaminski, R., Good, R., McConnell, S. R., & McEvoy, M. (2005). Individual Growth and Development Indicators (IGDIs): Assessment that guides intervention for young children. *Young Exceptional Children*, 4, 15-27.

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Phaneuf, R.L. & Silbergliitt, B. (2003). Tracking preschoolers' language and pre-literacy development using a general outcome measurement system: One education district's experience. *Topics in Early Childhood Special Education*, 23, 114-123.

2002

McConnell, S. R., McEvoy, M. A., & Priest, J. S. (2002). "Growing" measures for monitoring progress in early childhood education: A research and development process for Individual Growth and Development Indicators. *Assessment for Effective Intervention*, 27(4), 3 - 14. <http://dx.doi.org/10.1177/073724770202700402>

2001

Priest, J.S., McConnell, S. R., Walker, D., Carta, J. J., Kaminski, R. A., McEvoy, M. A., Good, R. H., Greenwood, C. R., & Shinn, M. R. (2001). General growth outcomes for young children: Developing a foundation for continuous progress measurement. *Journal of Early Intervention*, 24, 163 – 180. <http://dx.doi.org/10.1177/10538151010240030101>

McEvoy, M. A., Priest, J. S., Kaminski, R. S., Carta, J. J., Greenwood, C. R., McConnell, S. R., Good, R. H., Walker, D. & Shinn, M. R. (2001). General growth outcomes: Wait! There's more! *Journal of Early Intervention*, 24, 191-192.

### **Refereed Articles Under Review**

Durán, L., Wackerle-Holman, A. K. , Miranda, A., Chavez, C., Rodriguez, M. C., & Pentimonti, J. (revise and resubmit). The Effects of Language of Instruction on Spanish and English Oral Language Growth Rates of Bilingual Preschools. *Language Disability Research Quarterly*.

Durán, L., Raikes, A., Palma, J., & Brunner, S. (under review). The Role of Language Exposure and Use on Preschool Spanish Language and Early Literacy Skills. *Early Education and Development*.

Wackerle-Holman, A. K. , Hojnoski, R. L., Missall, K. M., Wang, Q., Running, K., Nevell, A., Koller, K., Rodriguez, M. C., Lease, E. M., & McConnell, S. R. (revise and resubmit). To time or not to time: Effects of timing on language and early literacy performance in preschool. *Journal of School Psychology*.

### **Book Chapters**

McConnell, S. R., Priest, J. S., Davis, S. D., & McEvoy, M. A. (2002). Best practices in measuring growth and development for preschool children. In A. Thomas and J. Grimes (Eds.), *Best practices in school psychology* (4th ed.) (pp. 1231 – 1246). Washington DC: National Association of School Psychologists.

- Carta, J. J., Greenwood, C. R., Walker, D., Kaminski, R., Good, R., McConnell, S. R., & McEvoy, M. A. (2002). Individual Growth and Development Indicators; Assessment that guides intervention for young children. In M. M. Ostrosky and E. Horn (Eds.) *Young exceptional children monograph series No. 4: Assessment: Gathering meaningful information* (pp. 15 – 27). Missoula, MT: Division of Early Childhood, Council for Exceptional Children.
- McConnell S. R., & Missall, K. N. (2008). Best practices in assessment of children age three to five. In A. Thomas and J. Grimes (Eds.), *Best practices in school psychology V* (pp. 561-574). Bethesda, MD: National Association of School Psychologists.
- Missall, K.M., & McConnell, S. R. (2010). Early literacy and language IGDIs for preschool-aged children. J. J. Carta & C. R. Greenwood (Eds.), *Individual Growth and Development Indicators: Tools for monitoring progress and measuring growth in very young children* (pp. 181 – 202). Baltimore, MD: Paul H. Brookes.
- McConnell, S. R. & Greenwood, C. R. (2013). General outcome measures in early childhood and the Individual Growth and Development Indicators. In V. Buisse and E. Peisner-Feinberg (Eds.), *Handbook of Response to Intervention in early childhood* (pp. 143 – 154). Baltimore, MD: Paul H. Brookes.
- McConnell, S. R., Wackerle-Holman, A. K. , & Bradfield, T. (2014). Universal early literacy screening. In R. Kettler, T. Glover, C. Albers & Feeney-Kettler (Eds.), *Universal screening in educational settings: Identification, implications, and interpretation* (pp. 141 – 170). Washington, D.C.: American Psychological Association.
- Carta, J. J., Greenwood, C. R., Goldstein, H., McConnell, S. R., Kaminski, R., Bradfield, T. A., Wackerle-Holman, A. K. , Linas, M., Guerrero, G., Spencer, E., & Atwater, J. (2016). Advances in multi-tiered systems of support for prekindergarten children: Lessons learned from 5 years of research and development from the Center for Response to Intervention in Early Childhood. In M. K. Jimerson, A. M. Burns & A. M. VanDerHeyden (Eds.), *The handbook of response to intervention: The science and practice of multi-tiered systems of support* (2nd Ed.) (pp. 587-606). New York: Springer.
- Hojnoski, R. L., Missall, K. N., & Miller Young, R. (2016). Defining and measuring early academic development to promote student outcomes. In A. Garro (Ed.), *Early childhood assessment in school and clinical psychology*, (pp. 51-72). New York: Springer Publishing.
- McConnell, S. R., & Rahn, N. L. (2016). Assessment in early childhood special education. In B. Reichow, B. A. Boyd, E. E. Barton, & S. L. Odom (Eds.), *Handbook of early childhood special education* (pp. 89 - 106). Switzerland: Springer International Publishing.
- Durán, L. & Wackerle-Holman, A. K. (2018). Meeting the needs of young dual language learners in multi-tiered systems of support. In J. Carta & R. Miller-Young (Eds.) *Multi-Tiered Systems of Support for young children: Driving change in early education* (pp. 171 – 190). Baltimore: Brookes Publishing.
- Durán, L. & Wackerle-Holman, A. K. (2019) A review of the measurement of early dual language and literacy growth in Spanish-English bilinguals. In D. Luft-Baker (Eds.) *Second language acquisition: Methods, perspectives and challenges*. New York: Nova Publishers.

- Hojnoski, R. L. & Polignano, J. C. (2019). How does an instructional team improve learning outcomes for all children through data-based decision making? In J. Carta & R. Miller Young (Eds.), *Multi-Tiered Systems of Support for young children: Driving change in early education* (pp. 73 – 96). Baltimore: Brookes Publishing.
- McConnell, S. R. (2019). The path forward for multi-tiered systems of support in early education. In J. J. Carta and R. Miller-Young (Eds.), *Multi-tiered systems of support for young children: Driving change in early education* (pp. 253 – 268). Baltimore: Brookes Publishing.
- Hojnoski, R. L., & Missall, K. N. (2020). Considerations and methods in assessing early learning and social-emotional development in young children. In V. C. Alfonso and G. DuPaul (Eds.), *Healthy development in young children: Evidence-based interventions for early education* (pp. 45-64). Washington, DC: American Psychological Association.
- Wackerle-Holman, A. K. K, & Durán, L. K. (2020). Data-based decision making to support language and early literacy skills in Spanish-speaking Dual Language Learners. *Recommended Practices on Assessment- Monograph 7* (pp. 1 – 15). Council for Exceptional Children- Division for Early Childhood.
- McConnell, S. R., and Goldstein, H. (2021). Measurement built for scale: Designing and using measures of intervention and outcome that facilitate scaling up. List, J., Suskind, D., and Supplee, L. (Eds.), *The scale-up effect in early childhood and public policy* (pp 301 – 319). Abingdon-on-Thames, United Kingdom: Routledge.

### Refereed and Invited Presentations

#### 2022

- Hojnoski, R., Wackerle-Hollman, A., Albano, A., Missall, K., & Purpura, D. (2022). *Applying a social justice framework to early childhood development*. [Panel presentation], Conference on Research Innovations in Early Intervention, San Diego, CA.
- Hojnoski, R., Wackerle-Hollman, A., Albano, A., & Missall, K. (2022, February). *Applying a social justice framework in early childhood measurement development*. . [Panel presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Missall, K., Hojnoski, R., Albano, A., & Purpura, D. (2022, February). *Developing LLAMA (links to learning via adaptive math assessment): Year 1 of research and development*. [Poster presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Alfes, C., Missall, K., & Artman-Meeker, K. (2022, February). *Tier 2 board game intervention for preschoolers at-risk of early math delays*. [Poster presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Goldstein, H., Kaiser, A. P., & McConnell, S. R. (2022, February). Getting to where you are going: Contributing to innovations in early intervention. [Panel presentation], Conference on Research Innovations in Early Intervention, San Diego, CA.
- Wheatley, R, Zyskind, K, Durán, L, Chávez, C, & Wackerle-Hollman, A. (2022). *Exploring home literacy environments for Spanish-speaking families*. [Poster presentation]. Conference on Research Innovations in Early Interventions, San Diego, CA.



- Durán, L., Lopez, L., Hammer, C. & Pratt, A. (2022). *The critical role of language proficiency in assessment and intervention with multilingual learners*. [Panel Presentation]. Conference on Research Innovations in Early Interventions, San Diego, CA.
- Le, T., Alhmodi, L. & Durán, L. (2022). *The use of virtual training and coaching in early intervention/early childhood special education: A systematic review of single subject research*. [Poster presentation]. Conference on Research Innovations in Early Interventions, San Diego, CA.
- Miranda, A., Durán, L., Wackerle-Hollman, A., & Medina, N. (2022). *The association of the progress monitor IGDI measures in preschool and Spanish and English outcomes in 1<sup>st</sup> grade*. [Poster presentation]. Conference on Research Innovations in Early Interventions, San Diego, CA.
- Chávez, C., Zyskind, K., Durán, & Wackerle-Hollman, A. (2022). *Convergent validity evidence for Spanish early language and literacy measures*. [Poster presentation]. Conference on Research Innovations in Early Interventions, San Diego, CA.

## 2021

- Wackerle-Holman, A. K. , Will, K., Lease, E. M., & McConnell, S. R. (2021, November). *Individual Growth and Development Indicators: Automated Performance Evaluation of Early Literacy and Language Development (IGDI-APEL)*. [Poster presentation - Virtual]. National Early Childhood Research Conference.
- Durán, L. & Wackerle-Holman, A. K. (November, 2021). *Language exposure and growth: Data-based clinical decision making with young multilingual learners*. [Paper presentation]. American Speech and Hearing Association Annual Conference, Washington DC
- Perlmutter, L., Missall K. N., Wackerle-Holman, A. K. , & Hojnoski, R. L.(2021, September). *3 R's from teacher data-based decision making: Report, reflect, & recommend*. [Poster presentation - Virtual]. Division of Early Childhood Council for Exceptional Children.
- Durán, L. K., & Missall, K. N. (2021, September). *The nuts and bolts of data-based decision making for all children*. [Workshop presentation - Virtual]. Division of Early Childhood Council for Exceptional Children, virtual.
- Zyskind, K., Chávez, C., Durán, L., Wheatley, R., & Wackerle-Hollman A. (2021, September). *Facilitating early literacy development for dual language learners*. [Panel Session]. Division for Early Childhood of the Council for Exceptional Children.
- Wackerle-Holman, A. K. , Durán, L. K., Miranda, A., Chavez, C., Medina Morales, N., & Zyskind, K. (2021, September). *Assessing 3-year-old Spanish Language and Early Literacy Skills*. [Poster presentation - Virtual]. Division of Early Childhood, Council for Exceptional Children
- Lease, E. M., Wackerle-Holman, A. K. , Elmquist, M., Will, K., Albano, A., & McConnell, S. R. (2021, September). *Early Literacy and Language performance Trends for 3-year-old Preschoolers*. [Poster presentation - Virtual]. Division for Early Childhood Annual Conference.
- Wackerle-Holman, A., Durán, L. K., Chavez, C., Rodriguez, M.C., & Miranda, A. (2021, April). *Caregiver report of the home language environments of Spanish-speaking children*.

- [Paper presentation - Virtual]. Society for Research on Child Development Biennial Meeting.
- Elmqvist, M., Will, K., Albano, A., Lease, E. M., McConnell, S. R., & Wackerle-Holman, A. K. (2021, April). *Assessing early literacy growth and development in three-year-olds using Individual Growth and Development Indicators*. [Poster presentation - Virtual]. Society for Research in Child Development, Minneapolis, MN.
- Chávez, C., Wackerle-Holman, A. K. , Durán L., Miranda, A. (2021, April). *Caregiver Report of the Home Language Environments of Spanish-Speaking Children*. [Poster presentation - Virtual]. Society for Research on Child Development Biennial Conference.
- Durán, L. K., Wackerle-Holman, A. K. , Lopez, L., Miranda, A. (March, 2021). *Examining language use with dual language learners in preschool classrooms*. [Panel presentation – Virtual]. Society for Research on Child Development.
- Wackerle-Holman, A. K. , Missall, K. M., & Hojnoski, R. L.(2021, February). *Helping teachers use early language and literacy screening data to prioritize intervention*. [Paper presentation - Virtual]. National Association of School Psychologists.
- Missall, K. M., Hojnoski, R. L., Purpura, D., & Albano, A. (2021, February). *Adding to IGDIs: Developing an early math measure for preschool*. [Poster presentation - Virtual]. National Association of School Psychologists.
- Will, K., Elmquist, M., Albano, A., Wackerle-Holman, A. K. , Lease, E. M., & McConnell, S. R. (2021, January). *Scaling oral language measures to evaluate 3-year-olds’ developing skills*. [Poster presentation - Virtual]. Division of Early Childhood of the Council for Exceptional Children annual conference, Minneapolis, MN.
- Wackerle-Holman, A. K. , Missall, K. N. & Hojnoski, R. L.(2021, January). *Using preschool early literacy and language trajectories to predict reading success*. [Paper presentation - Virtual]. Division of Early Childhood of the Council for Exceptional Children.
- Durán, L. K., Wackerle-Holman, A. K. (2021, January). *Using preschool early literacy and language trajectories to predict reading success*. [Paper presentation - Virtual]. Division of Early Childhood of the Council for Exceptional Children.
- Durán, L., Wackerle-Holman, A. K. (January, 2021). *Supporting the home literacy practices of Spanish-speaking families*. [Poster presentation - Virtual]. Division of Early Childhood of the Council for Exceptional Children.
- Durán, L., Wackerle-Holman, A. K. (January, 2021). *Using preschool early literacy and language trajectories to predict reading success*. [Paper presentation - Virtual]. Division of Early Childhood of the Council for Exceptional Children.
- Missall, K. N., Hojnoski, R. L., Albano, A., Purpura, D. (2021). *Adding to IGDIs: Developing an early math measure for PreK*. [Poster presentation - Virtual]. National Association of School Psychologists.

## 2020

- Wackerle-Holman, A. K. , Missall, K. & Hojnoski, R. L.(2020, November). *To time or not to time: The effect of timing on young children’s early literacy performance*. [Poster presentation - Virtual]. National Early Childhood Research Conference.

- Durán, L. & Wackerle-Holman, A. K. (November, 2020). *The quality and quantity of language scaffolding in Spanish and English in preschools serving DLLs*. [Paper presentation]. American Speech and Hearing Association (ASHA) Annual Conference, Orlando, FL.
- Wackerle-Holman, A. K. , Missall, K. M., & Hojnoski, R. L.(2020, October). *Using preschool early literacy and language trajectories to predict reading success*. [Paper presentation]. Division of Early Childhood of the Council for Exceptional Children's, Minneapolis, MN.
- Hojnoski, R. L., Wackerle-Holman, A. K. , Missall, K. M., Rodriguez, M.C., & Kang, Y. (2020, June 22-24). *To time or not to time: The effect of timing on young children's early literacy performance*. [Paper presentation]. Administration for Children and Families' National Research Conference on Early Childhood, Arlington, VA.
- Wackerle-Holman, A. K. , Missall, K. M., Running, K., (2020, February) *Examining early literacy IGDII growth estimates and preschool classroom features*. [Poster presentation]. National Association of School Psychologists, Baltimore, MD.
- Wackerle-Hollman. A., Missall, K. M., Kang, Y. & Hojnoski, R. L. (2020, February) *Early language and literacy growth trajectories*. [Poster presentation]. National Association of School Psychologists, Baltimore, MD.
- Wackerle-Holman, A. K. , Missall, K. M., Running, K., Hojnoski, R. L., & Yang, Y. (2020, February). *Early literacy and language growth profiles for preschool age children*. [Poster presentation]. National Association of School Psychologists, Baltimore, MD.
- Wackerle-Holman, A. K. , Missall, K. M., Hojnoski, R. L., Kang, Y., Running, K. (2020, February). *To time or not to time: Effects of timing an assessment of preschooler's language and early literacy skills*. [Poster presentation]. Conference for Research Innovations in Early Intervention. San Diego, CA.
- Anderson, J. F., Missall, K. N., Alfes, C., & Artman-Meeker, K. (2020, February). *Preschool teacher candidates' perceptions of early numeracy universal screening*. [Poster presentation]. National Association of School Psychologists, Baltimore, MD.
- McConnell, S. R., Goldstein, H., & Spencer, T. (2020, February). *Disseminating work to affect practice: Getting our light from under the bushel?*. [Panel presentation]. Conference for Research Innovation in Early Intervention, San Diego CA.
- Miranda, A., Durán, L. K., Wackerle-Holman, A. K. , Lopez, L., Hammer, C. (February, 2020). *Look who's talking now: Understanding how language is used with Spanish-speaking preschoolers in the classroom environment*. [Poster presentation]. Conference for Research Innovations in Early Intervention. San Diego, CA.

## 2019

- Wackerle-Holman, A. K. & Durán, L. K. (2019). *Spanish and English Early Literacy Longitudinal Growth Trajectories for Bilingual Preschool Age Children*. [Paper presentation]. American Speech and Hearing Association (ASHA) Annual Conference, Orlando, FL.
- McConnell, S.R. (2019, November). The science of scaling in early childhood education. [Videotaped interview]. Griffin Applied Economics Incubator, University of Chicago. Retrieved from <https://voices.uchicago.edu/griffinincubator/visitors-2/> 10/6/20.

- McConnell, S. R. (2019, November). *Measurement that matters: Aligned and actionable assessment to improve age 3 to grade 3 achievement*. [Invited presentation]. University of Chicago Education Workshop, Chicago IL.
- Anderson, J. F., & Missall, K. N. (2019, October). *Early childhood teacher candidate perceptions on usefulness of universal screening of numeracy*. Poster presentation at the annual meeting of the Division of Early Childhood Council for Exceptional Children, Dallas, TX.
- Will, K., Elmquist, M., Lease, E. M., Wackerle-Holman, A. K. , Albano, A., & McConnell, S. R. (2019, June). *Starting early to go far: Language and early literacy assessment for three-year-olds*. [Poster presentation]. International Society on Early Intervention, Sydney, Australia.
- Wackerle-Holman, A. K. , Hojnoski, R. L., McConnell, S. R., & Missall, K. N. (2019, March). *Using fluency and central tendency to understand early literacy performance*. [Paper presentation]. National Association of School Psychologists, Atlanta, GA.
- Wackerle-Holman, A. K. , McConnell, S. R., Lease, E. M., Rodriguez, M.C., & Durán, L., (March, 2019). Individual Growth and Development Indicators during the preschool years: Research and development. In A. Sussman and C. Ebanks (chairs), *Use of Individual Growth and Development Indicators to support early intervention and early learning*. [Symposium]. Society of Research on Child Development Biannual Meeting, Baltimore, MD.
- Wackerle-Holman, A. K. , & Durán, L. K. (May, 2019). Bilingual preschoolers' performance on the Spanish and English Individual Growth and Development Indicators. In C. Ebanks (chair) *Measuring school readiness skills of dual language learners: Development and validation of assessment tools*. [Symposium presentation]. Society of Research on Child Development Bi-annual meeting. Baltimore, MD.
- Greenwood, C., Durán, L., Carta, J., McConnell, S. R., Wackerle-Holman, A. K. (March, 2019). Emerging Individual Growth and Development Indicators trends. In A. Sussaman and C. Ebanks (chairs), *Use of Individual Growth and Development Indicators to support early intervention and early learning*. [Symposium presentation]. Society of Research on Child Development Bi-annual meeting. Baltimore, MD.
- Buzhardt, J., Wackerle-Holman, A. K. , Walker, D., Greenwood, C. Jia, F., McConnell, S. R., Lease, E. M., Rodriguez, M.C., & Durán, L. K. (2019, March). The effects of technology that supports the use of IGDIs for data-driven intervention & decision-making In A. Sussman & C. Ebanks (Chairs), *Use of Individual Growth and Development Indicators to support early intervention and early learning*. [Symposium presentation]. Society of Research on Child Development Biannual Meeting, Baltimore, MD.
- Anderson, J. F., & Missall, K. N. (2019, October). *Early childhood teacher candidate perceptions on usefulness of universal screening of numeracy*. [Poster presentation]. Division of Early Childhood Council for Exceptional Children, Dallas, TX.
- Will, K., Schuster, K., Running, K., Wackerle-Holman, A. K. , Lease, E. M., & McConnell, S. R. (2019, February). *Special education preschool students' engagement in a tablet-based literacy assessment*. [Poster presentation]. National Association of School Psychologists, Atlanta GA.

- Wackerle-Holman, A. K. , Hojnoski, R. L., Missall, K. N., McConnell, S. R., Running, K., & Koller, K. (2019, February). *Using fluency and central tendency to understand early literacy performance*. [Paper presentation]. National Association of School Psychologists annual convention, Atlanta, GA.
- Schuster, K., McConnell, S. R., & Schardt, A. (2019, February). *Engagement of 3-year-olds in language and literacy assessment measures*. [Poster presentation]. National Association of School Psychologists, Atlanta GA.
- McConnell, S. R., Lease, E. M., Will, K., Elmquist, M., Albano, A., & Beck, M. (2019, February). *Growing down: Early literacy general outcome measures for 3-year-olds*. [Poster presentation]. National Association of School Psychologists, Atlanta, Georgia.
- Miller Young, R., Carta, J. C., & Hojnoski, R. L.(2019, February). *MTSS for young children: Driving change in early education*. [Workshop presentation]. National Association of School Psychologists, Atlanta, GA.
- Hojnoski, R. L., Wackerle-Holman, A., & McConnell, S. R. (2019, February). *The devil is in the details: Data-based decision making in preschool*. [Practitioner conversation]. National Association of School Psychologists annual convention, Atlanta, GA.
- Wackerle-Holman, A. K. , McConnell, S. R., Will, K, Wang, Q., & Lease, E. M. (2019, January) *Evaluating the impact of IGDI-APEL on teacher data-based decision-making and student early literacy and language performance*. [Poster presentation]. Institute of Education Science Project Directors, Washington DC.
- Anthony, J., Durán, L. K., Greednfield, D., Golinkoff, R., Erickson, L, Wackerle-Holman, A. K., Lonigan, C., Scarpino, S., & Hammer, C. (2019, January). *New assessment tools for early learners: The development of measures to assess the school readiness of young dual language learners*. [Invited panel presentation]. Institute of Education Sciences Project Directors' Meeting, Washington DC.

## 2018

- Wackerle-Holman, A. K. , & Durán, L. K. (November, 2018). *Digging deeper in language assessment: Early vocabulary response patterns for monolingual and bilingual preschoolers*. [Paper presentation]. American Speech Language and Hearing Association Conference, Boston, MA.
- Wackerle-Holman, A. K. & Durán, L. K. (2018, October). *Preschool Spanish-English Dual Language Learner Growth Trajectories for at-risk students*. [Paper presentation]. Council for Exceptional Children-Division of Early Childhood Annual Conference. Orlando, FL.
- Buzhardt, J., Walker, D., Wackerle-Holman, A. K. & McConnell, S. R. (2018, October). *IGDIs to support multi-tiered systems of support: Advances for use in 0-3 and preschool settings*. [Paper presentation]. Council for Exceptional Children-Division of Early Childhood Annual Conference. Orlando, FL.
- Wackerle-Holman, A. K. & Durán, L. K. (July, 2018). *Innovations in progress monitoring Spanish speaking preschooler's Spanish language and early literacy development*. [Paper presentation]. Society for the Scientific Study of Reading, Brighton, UK

- Will, K., Wang, Q., Wackerle-Holman, A. K. , McConnell, S (2018, July) *Investigating the role of disability status in early language and literacy assessment performance*. [Paper presentation]. Society for Text and Discourse, Brighton, United Kingdom.
- Wang, Q., Palma, J., Wackerle-Holman, A. K. , McConnell, S. R. (2018, July) *The item level position effect in an early literacy alphabetical knowledge measure*. [Paper presentation]. Society for the Scientific Study of Reading, Brighton, United Kingdom.
- Wang, Q., Palma, J., Wackerle-Holman, A. K. , McConnell, S. R. (2018, July). *Comparing the key position and item difficulty relationship in alphabetical knowledge and phonological awareness measures*. [Poster presentation]. Society for the Scientific Study of Reading, Brighton UK.
- Durán, L. K. (July, 2018). *Emerging solutions for implementing multi-tiered systems of support in early childhood education with Spanish-English bilingual preschoolers*. [Panel presentation]. Society for the Scientific Study of Reading, Brighton, UK
- Wang, Q., Palma, J., Rodriguez, M.C., & Wackerle-Holman, A. K. (2018, June) *Modeling aberrant person level response behavior: A SEM approach*. [Paper presentation]. International Testing Commission Annual Conference, Montreal, Canada.
- Wang, Q., Rodriguez, M.C., Wackerle-Holman, A. K. , & McConnell, S. R. (2018, April). *Stratified diagnostic methods for Rasch-based computerized adaptive test*. [Paper presentation]. National Council on Measurement in Education Annual Meeting, New York, NY.
- Wang, Q., Rodriguez, M.C., Wackerle-Holman, A. K. , & McConnell, S. R. (2018, April) *Exploring issues in response speed: Insight gained from an early literacy assessment*. [Paper presentation]. National Council on Measurement in Education, New York, NY.
- Will, K., Wang, Q., Lease, E. M., & Wackerle-Holman, A. K. (2018, March). *Investigating the relationship between performance variation in an early comprehension task and student demographic background*. [Poster presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Wang, Q., Palma, J., Wackerle-Holman, A. K. , Rodriguez, M.C., & McConnell, S. R. (2018, March). *Investigating the psychometric and content characteristics of common items across languages: Spanish and English picture naming early literacy assessments*. [Poster presentation]. Research Innovation in Early Intervention Biennial Conference, San Diego, CA.
- Wackerle-Holman, A. K. , Hojnoski, R. L., Missall, K. M., McConnell, S. R., Boyd, E., & Hussein, S. (2018, March). *What's in a name: Exploring children's alternate responses to Picture Naming*. [Poster presentation]. Conference on Research Innovation in Early Intervention, San Diego CA.
- Hojnoski, R. L., Missall, K. M., Wackerle-Holman, A. K. , Boyd, E., & Zaksessi, B. (2018, March). *What's in a name: Exploring children's alternate responses to picture naming?*. [Poster presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Schuster, K., Schardt, A., Wackerle-Holman, A. K. & McConnell, S. R. (2018, February). *Assessing early language and literacy development in three year old children*. [Poster presentation]. National Association of School Psychologists conference, Chicago, IL.

- Running, K., Wang, Q., Wackerle-Holman, A. K. & McConnell, S. R. (2018, February). Understanding vocabulary themes in the IGDI Picture Naming task. In R. Hojnoski (Chair), *Finding Meaning in Labels: Exploring Picture Naming Responses*. [Panel presentation]. National Association of School Psychologists conference, Chicago, IL.
- Hojnoski, R. L., Wackerle-Holman, A. K. , Missall, K. M., Boyd, E., Hussain, S., & Running, K. (2018, February). *Finding meaning in labels: Exploring picture naming IGDI responses*. [Panel presentation]. National Association of School Psychologists, Chicago, IL.
- Durán, L. K., Wackerle-Holman, A. K. , & Limlingan, C. (March, 2018). *Classroom quality for dual language learners and the relationship to growth in English and Spanish*. [Panel presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Wang, Q., Palma, J., Wackerle-Holman, A. K. , McConnell, S. R. (2018, February) *Investigating the Psychometric and Content Characteristics of Common Items Across Languages: Spanish and English Picture Naming Early Literacy Assessments*. [Poster presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Will, K. & Lease, E. (2018, January). *Using Technology to Identify Risks in Early Language Development and Inform Interventions: IGDI's*. [Lecture]. University of Minnesota for PA 5413 Early Childhood and Public Policy, Minneapolis, MN.

## 2017

- Wackerle-Holman, A. K. , Wang, Q., & Will, K. (2017, November). *Innovative data-based technology to support early language assessment using the Individual Growth and Development Indicators*. [Poster presentation]. American Speech-Language-Hearing Association Convention, Los Angeles, CA.
- Wackerle-Holman, A. K. & Durán, L. K. (2017, November). *The role of language exposure in screening Spanish early literacy and language skills*. [Paper presentation]. American Speech-Language and Hearing Association national conference. Los Angeles, CA.
- Will, K., Wang, Q. & Wackerle-Holman, A. K. (2017, November). *Innovative data-based technology to support early literacy assessment using the individual growth and development indicators*. [Poster presentation]. American Speech-Language and Hearing Association national conference. Los Angeles, CA.
- Will, K. (2017, November). *Evaluating IGDI-APEL as a Tool for Early Literacy Assessment and Data-based Decision Making*. [Paper presentation]. St. Catherine University Psychology Colloquium, St. Paul, MN.
- Wang, Q., Rodriguez, M.C., Wackerle-Holman, A. K. , & McConnell, S. R. (2017, October) *Investigating the association between response outcome and response time in an early literacy assessment*. [Poster presentation]. Timing Impact on Measurement in Education (TIME) Conference of the National Board of Medical Examiners, Philadelphia, PA.
- McConnell, S. R., Wackerle-Holman, A. K. , Missall, K. N. & Hojnoski, R. L.(2017, October). *Individual Growth and Development Indicators keep growing! New application and opportunities*. [Poster presentation]. Division of Early childhood of the Council for Exceptional Children's annual conference, Portland, Oregon.
- Ludeman, S., Missall, K. M., Meeker, K., & Roberts, C. (2017, October). *Universal screening of academic and social-emotional skills in inclusive preschool and kindergarten*. [Poster

presentation]. Division of Early Childhood Council for Exceptional Children, Portland, OR.

Durán, L. K. & Wackerle-Holman, A. K. (October, 2017). *Profiles of preschool bilinguals with low ability in both English and Spanish*. [Paper presentation]. Division for Early Childhood. Portland, OR.

Wang, Q., Wackerle-Holman, A. K. , Rodriguez, M.C., & McConnell, S. R. (2017, April). *Investigating response time effect in an early literacy assessment*. [Paper presentation]. National Council on Measurement in Education Annual Meeting, San Antonio, TX.

Wackerle-Holman, A. K. , Missall, K. & Hojnoski, R. L.(2017, February). *Data-based decision making: advances in early language and literacy assessment*. . [Paper presentation]. National Association of School Psychology conference, San Antonio, Texas.

Miller-Young, R., Carta, J., Hojnoski, R. L.& Wackerle-Hollman. A. (2017, February). *MTSS for Young Children: An effect early education system framework*. . [Panel presentation]. National Association of School Psychology conference, San Antonio, Texas.

Durán, L. & Wackerle-Holman, A. K. (2017, February). *The development of a Spanish story-book based preschool universal screening measure*. . [Paper presentation]. Pacific Coast Research Conference, San Diego, CA.

Wackerle-Holman, A. K. (2017, January). *Data-based decision making within an early childhood MTSS*. . [Paper presentation]. Rochester Public Schools, Rochester, MN

## 2016

Durán, L. K. (December, 2016). *Measures for early language and literacy screening in Spanish*. . [Paper presentation]. National Head Start Association Parent, Staff and Leadership Training conference, San Juan, Puerto Rico.

Buzhardt, J., Greenwood, C.R., McConnell, S. R., Wackerle-Holman, A. K. , & Walker, D. (2016, December). *The IGD Enterprise: Development and use of Individual Growth and Development Indicators to support early intervention and early learning of infants, toddlers, and preschoolers*. [Invited presentation]. Institute of Education Sciences Project Directors' Meeting, Washington DC

Teran, P., Olszewski, A., Durán, L. & Wackerle-Holman, A. K. (2016, November). *Spanish narrative language growth in young Spanish-English bilingual preschoolers*. . [Paper presentation]. American Speech-Language and Hearing Association national conference. Philadelphia, PA.

Durán, L. & Wackerle-Holman, A. K. (2016, November). *A longitudinal examination of Spanish Speaking DLL's kindergarten reading performance based on tier level status on the IGDIs*. . [Poster presentation]. American Speech-Language and Hearing Association national conference. Philadelphia, PA.

Wackerle-Holman, A. K. (2016, October). *Understanding the role of Spanish early literacy and language development in academic success through robust assessment*. . [Paper presentation]. Migrant Preschool Initiative Consortium, Atlanta, GA.

Wackerle-Holman, A. K. (2016, July). *Examining the predictive validity of IGDIs-Español on Spanish and English performance in Kindergarten*. . [Paper presentation]. Society for the Scientific Study of Reading, Porto, Portugal



- Palma, J., Brunner, S., Wackerle-Holman, A. K. , Rodriguez, M. C., Durán, L., Kohlmeier, T., & Callard, C. (July, 2016). *Evaluating child responses as a means for validation of construct representation on a Spanish verb task. [Poster presentation]*. Society for the Scientific Study of Reading Annual Meeting, Porto, Portugal.
- Callard, C., Durán, L., Wackerle-Holman, A. K. , Palma, J., Kohlmeier, T., & Brunner, S. (July, 2016). *IGDIs-Español: How home language exposure, language of instruction, and sex correlate with differential tier assignments on three measures of oral language. . [Poster presentation]*. Society for the Scientific Study of Reading, Porto, Portugal.
- Brunner, S., Kohlmeier, T., Palma, J., Wackerle-Holman, A. K. , Durán, L., & Callard, C. (July, 2016). *Impact of language of instruction and language modeling on growth trajectories of Spanish-English dual language learner preschoolers' early literacy skills. . [Poster presentation]*. Society for the Scientific Study of Reading, Porto, Portugal.
- Durán, L. K. (July, 2016). *Exploring the relationships between English and Spanish preschool language and literacy ability, language exposure, language of instruction, and kindergarten outcomes. . [Paper presentation]*. Society for the Scientific Study of Reading. Porto, Portugal.
- Wackerle-Holman, A. K. (2016, April). *Using data-based decision making to drive instruction. . [Paper presentation]*. Minnesota Association for Family and Early Educators, St Cloud, MN.
- Kincaid, A. P. & McConnell, S. R. (2016, April). *Language and early literacy growth in preschool-aged students. . [Poster presentation]*. American Educational Research Association, Washington DC.
- Wackerle-Holman, A. K. , Brunner, S., Durán, L. & Palma, J. (2016, February). *Advances in assessment for preschool-age Spanish English bilinguals. . [Poster presentation]*. Annual conference for the National Association for School Psychologists. New Orleans, LA.
- McConnell, S. R., & Kincaid, A. (2016, February). *Creating meaningful scale scores for Individual Growth and Development Indicators of Early Literacy. . [Poster presentation]*. Conference on Research Innovations in Early Childhood, San Diego CA.
- Jacobs, H., Wang, Q., Wackerle-Holman, A. K. , Rodriguez, M. C., & McConnell, S. R. (2016, February). *Computer adaptive testing adjustments in an early literacy assessment. [Poster presentation]*. Conference for Research Innovations in Early Intervention, San Diego, CA.
- Durán, L. K., & Wackerle-Holman, A. K. (February, 2016). *Multi-tiered systems of support for dual language learners: Universal Screening and tier 2 intervention. [Paper presentation]*. Conference on Research Innovations in Early Intervention. San Diego, CA.
- Durán, L. & Wackerle-Holman, A. K. (2016, February). *Developmental Trajectories of Spanish-English bilingual preschoolers: Exploring ability and language of instruction. [Paper presentation]*. Conference for Research Innovations in Early Intervention. San Diego, CA.

## 2015

- Wackerle-Holman, A. K. & Durán, L. K. (2015, December). *Establishing comparative score guidelines for supporting high quality English and Spanish early literacy instruction and*

- intervention*. [Poster presentation]. Institute of Education Sciences annual Principal Investigator meeting. Washington, D.C.
- Wackerle-Holman, A. K. , & Rodriguez, M.C. (2015, April). *Standard setting for Spanish Individual Growth & Development Indicators*. [Paper presentation]. National Council on Measurement in Education Annual Meeting, Chicago, IL.
- Durán, L. K., & Wackerle-Holman, A. K. (December, 2015). *The development of a Spanish storybook-based preschool universal screening measure*. [Paper presentation]. Literacy Research Association. San Diego, CA.
- Wackerle-Holman, A. K. , Palma, J., Brunner, S. & Durán, L. K. (2015, November). *Developmental Trajectories of Spanish-English Bilingual Preschoolers: Exploring Ability and Language of Instruction*. [Poster presentation]. American Speech-Language and Hearing Association national conference. Denver, Colorado. Meritorious Poster Award
- Palma, J., Brunner, S., Wackerle-Holman, A. K. , & Durán, L. K. (November, 2015). *Developmental trajectories of Spanish-English bilingual preschoolers: Exploring ability and language of instruction*. [Poster presentation]. American Speech and Hearing Association. Denver, CO.
- Durán, L. K., & Wackerle-Holman, A. K. (November, 2015). *The development of the Individual Growth and Development Indicators-Español*. [Poster presentation]. American Speech and Hearing Association. Denver, CO
- Wackerle-Holman, A. K. (2015, July). Understanding level of language exposure through a measurement lens: Spanish Individual Growth and Development Indicators. In *Dual language measurement of the Spanish early language and literacy development of preschoolers: Challenges and innovation*. [Panel presentation]. Society for the Scientific Study of Reading, Kona, Hawaii.
- McConnell, S. R. & Wackerle-Holman, A. K. (2015, July). Supporting innovative assessment and data-based decision making with young children: Individual growth and development indicators - automated performance evaluation of early literacy and language. In *Innovative measures of language and literacy*. [Panel presentation]. Society for the Scientific Study of Reading, Kona, Hawaii.
- Durán, L. K. (July, 2015). *Innovations in the development of a Spanish early language and literacy general outcome measure: The Spanish Individual Growth and Development Indicators (S-IGDIs)*. [Paper presentation]. Society for the Scientific Study of Reading. Kona, HI.
- Brunner, S. & Wackerle-Holman, A. K. (2015, July) Conceptualizations of language and literacy in Spanish-English bilinguals: Using IGDIs to examine growth and status through a comparative score rubric. In *Dual language early language and literacy instruction and curriculum-based measurement*. [Panel presentation]. Society for the Scientific Study of Reading, Kona, Hawaii.
- Callard, C., & Durán, L. K. (July, 2015). *Differential tier designation of three oral language measures*. [Poster presentation]. Society for the Scientific Study of Reading. Kona, HI.
- Palma, J., Brunner, S., Wackerle-Holman, A. K. , & Rodriguez, M. C. (2015, March 6). *Estimating detectable growth in Spanish-English bilingual preschoolers' early literacy*

*skills*. [Poster presentation]. Graduate Student Research Day, Educational Psychology, University of Minnesota, Minneapolis, MN.

McConnell, S. R. (2015, April). Growth and development in preschool as foundations for a modern measurement model. In M.C. Rodriguez (Chair), *Measurement and Implementation Challenges in Early Childhood Assessment*. [Panel presentation]. National Council on Measurement in Education

## 2014

Wackerle-Holman, A. K. , Brunner, S., Palma, J. & Durán, L. K. (2014, October) *Understanding the impact of language acquisition and use on early literacy achievement*. [Poster presentation]. International Conference on Young Children with Special Needs and their Families Division of Early Childhood Council on Exceptional Children, St Louis, MO.

Wackerle-Holman, A. K. , Durán, L., Pena, E. & LaForett, D. (2014, February). *Examining the challenges and current innovations of assessing young Spanish-English-speaking preschoolers*. [Panel presentation]. Conference for Research Innovation in Early Intervention, San Diego CA.

Palma, J., Brunner, S., Wackerle-Holman, A. K. , Kohlmeier, T., Durán, L., & Callard, C. (2014, February). *On the dynamic process of test development and methodological challenges of preschool assessment of Spanish-English bilinguals*. [Poster presentation]. Conference for Research Innovation in Early Intervention, San Diego CA.

Bradfield, T. A., McConnell, S. & Wackerle-Hollman, A (2014, February) *Confident decision-making: Validation of an Early Childhood Response to Intervention decision-making framework*. [Poster presentation]. Conference for Research Innovation in Early Intervention, San Diego CA.

## 2013

Kaminski, R. A., Greenwood, C. R., Carta, J., Goldstein, H., & McConnell, S. R. (2013, October). *From research to practice: Lessons learned in early childhood RTI*. [Paper presentation]. Division of Early Childhood, Council on Exceptional Children, San Francisco CA.

McConnell, S. R., Rodriguez, M. C., Palma, J., Bradfield, T. A., & Wackerle-Holman, A. K. (2013, October). *Creating growth scales for second-generation Individual Growth and Development Indicators*. [Poster presentation]. Division of Early Childhood, Council on Exceptional Children Annual Meeting, San Francisco, CA.

Durán, L. K., Wackerle-Holman, A. K. , McConnell, S. R., Callard, C., & Kohlmeier, T. (2013, October). *Development of Spanish Individual Growth and Development Indicators: Pioneering new assessment methodology*. [Panel presentation]. Division of Early Childhood, Council on Exceptional Children, San Francisco CA.

Bradfield, T. A., & McConnell, S. R. (2013, October). *Decision-making within an early childhood RtI model*. [Paper presentation]. Division of Early Childhood, Council on Exceptional Children, San Francisco CA.

- Wackerle-Holman, A. K. , Durán, L. K., Rodriguez, M. C., & McConnell, S. R. (2013, May 16-17). *Spanish-English bilingual language development and implications for assessment*. [Paper presentation]. Inaugural Bilingual Research Conference, Houston, Texas.
- Wackerle-Holman, A. K. , Durán, L., Rodriguez, M.C., & McConnell, S. R. (2013, April). *Spanish-English bilingual language development & implications for assessment*. [Poster presentation]. Society for Research in Child Development Biennial Meeting, Seattle, WA.
- McConnell, S. R., Bradfield, T. A., & Wackerle-Holman, A. K. (2013, March). *Individual Growth and Development Indicators in universal screening and progress monitoring for early childhood Response to Intervention*. [Laptop showcase]. Institute of Education Sciences Principal Investigators, Washington D.C.
- Palma, J., Brunner, S., Wackerle-Holman, A. K. , Rodriguez, M.C., & McConnell, S. R. (2013, March 4). *Comparing simultaneous and sequential Spanish-English bilingual children's item interpretations using think aloud methodology: validity evidence for the S-IGDI picture naming task*. [Poster presentation]. Graduate Student Research Day, Educational Psychology, University of Minnesota, Minneapolis, MN.
- Potter, L. M., Besner, A., Palma, J. & McConnell, S.M. (2013, February). *Using a partial credit model with picture naming IGDIs 2.0*. [Poster presentation]. National Association of School Psychologists in Seattle, WA.

## 2012

- Wackerle-Holman, A. K. , Bradfield, T. A., Spencer, T., & McConnell, S. R., (2012, November). *Measuring a response to intervention model in early childhood: Examining assessments for identification, decision making and progress monitoring*. [Poster presentation]. International Conference on Young Children with Special Needs and their Families, Division of Early Childhood, Council on Exceptional Children, Minneapolis, MN.
- Schmitt, B, McConnell, S.R. (2012, November). *Preschooler guessing behavior on measures of early literacy*. [Poster presentation]. Division for Early Childhood Conference. Minneapolis, MN.
- Rahn, N. & McConnell, S. R., (2012, November). *Practice effects in a preschool picture naming task*. [Poster presentation]. Division for Early Childhood, Council on Exceptional Children, Minneapolis MN.
- McConnell, S. R. (2012, October). *Assessment and education technology – Giving teachers tools to improve instruction*. [Invited presentation]. EduTech 2012 Showcase and Forum: “Defining the Frontier of Education, Research & Entrepreneurship.” Washington DC.
- Potter, L., Besner, A., Palma, J., Bradfield, T. A., & McConnell, S. R. (2012, September). *Using a partial-credit model with Picture Naming IGDIs 2.0*. [Poster presentation]. Summit on Response to Intervention in Early Childhood, Santa Ana Pueblo NM.
- McConnell, S. R., Wackerle-Holman, A. K. , & Bradfield, T.A. (2012, September). *IGDIs and beyond: Measurement and decision-making for language and early literacy RTI efforts in early childhood*. [Workshop presentation]. Summit on Response to Intervention in Early Childhood, Santa Ana Pueblo NM

- Durán, L. K., Wackerle-Holman, A. K. , & McConnell, S. R. (2012, September). *All new Spanish IGDIs: Bilingual measurement considerations in S-IGDI development*. [Paper presentation]. Summit on Response to Intervention in Early Childhood, Santa Ana Pueblo NM
- McConnell, S. R., (2012, June). *Assessment and progress monitoring in early childhood education*. [Invited presentation]. Head Start Front Porch Webinar series. National Center for Quality Teaching and Learning, Seattle WA.
- Hojnoski, R. L., Caskie, G., Polignano, J., & Brittain, A. (June, 2012). *Curriculum-based assessment of early numeracy in preschoolers who speak Spanish as their primary language: Differences in performance and growth over time*. [Poster presentation]. Head Start Research Conference, Washington, DC.
- Hojnoski, R. L. (September, 2012). *Technical adequacy of the Preschool Numeracy Indicators*. [Poster presentation]. Summit on Response to Intervention in Early Childhood, Santa Ana Pueblo, NM.
- Wackerle-Holman, A. K. , Carta, J. & Kaminski, R. (2012, February). *Examining the challenges of rti for young children in need of special education services*. [Panel presentation]. Conference for Research Innovation in Early Intervention, San Diego CA.
- Potter, L., Clayton, K., Rodriguez, M. I., Schmitt, B., Wackerle-Holman, A. K. & McConnell, S. R. (2012, February). *IGDIs 2.0: Practitioner judgments of feasibility, validity and functionality*. [Poster presentation]. National Association of School Psychologists, Philadelphia PA.
- Polignano, J. C., & Hojnoski, R. L. (February, 2012). *Additional curriculum-based measures for preschool mathematics*. [Paper presentation]. National Association of School Psychologists, Philadelphia, PA.
- McConnell, S. R. (2012, February). *Using teacher judgments and other standards to set cut-scores for RTI tiered intervention*. [Paper presentation]. Conference on Research Innovations in Early Childhood, San Diego CA.
- Hojnoski, R. L. (February, 2012). *Challenges in measuring early mathematics: Assessment practices and measurement research in Response to Intervention*. [Paper presentation]. Conference on Research Innovations in Early Childhood, San Diego, CA.
- Hojnoski, R. L., Polignano, J. C., & Brittain, S. (February, 2012). *Assessment of early numeracy in preschool children who speak Spanish as their primary language*. [Poster presentation]. National Association of School Psychologists, Philadelphia, PA.

## 2011

- Hojnoski, R. L., & Missall, K. N. (November, 2011). *Data-based decision making for early mathematics: Linking assessment and instruction*. [Paper presentation]. Council for Exceptional Children, Division of Early Childhood, 27<sup>th</sup> Annual Conference on young Children with Special Needs and Their Families, National Harbor, MD.
- Bradfield, T. A., Wackerle-Holman, A. K. , & McConnell, S. R. (2011, September). *Using IGDIs to identify children for tiered intervention: Update on CRTIEC measurement research*. . [Paper presentation]. Summit on Response to Intervention in Early Childhood, Santa Ana Pueblo, New Mexico.

- Wackerle-Holman, A. K. , Bradfield, T. A., McConnell, S. R., Albano, A.D., & Rodriguez, M.C. (2011, April). *Task development and item analysis in innovative measures of early literacy*. [Paper presentation]. National Council on Measurement in Education Annual Meeting, New Orleans, LA.
- Rodriguez, M.C., Albano, A.D., McConnell, S. R., Wackerle-Holman, A. K. , & Bradfield, T. (2011, April). *Standard setting with innovative measures of early literacy: Contrasting groups*. [Paper presentation]. National Council on Measurement in Education Annual Meeting, New Orleans, LA.
- Bradfield, T. A., Wackerle-Holman, A. K. , McConnell, S. R., Rodriguez, M.C., & Albano, A.D. (2011, April). *Construct identification to support early literacy measurement*. [Paper presentation]. National Council on Measurement in Education Annual Meeting, New Orleans, LA.
- Albano, A.D., Rodriguez, M.C., McConnell, S. R., Bradfield, T. A., & Wackerle-Holman, A. K. (2011, April). *Scaling with measures of early literacy*. [Paper presentation]. National Council on Measurement in Education Annual Meeting, New Orleans, LA.
- McConnell, S. R., Bradfield, T.A., Wackerle-Holman, A. K. , & Rodriguez, M.C. (2011, March). *IGDIs in support of RTI in preschool settings*. [Paper presentation]. Midwest Instructional Leadership Council Meeting, St. Paul, MN.
- Polignano, J. C. & Hojnoski, R. L. (2011, February). *The technical adequacy of a general outcome measure of geometry for preschool children*. Poster presented at the annual meeting of the National Association of School Psychologists. San Francisco.
- McConnell, S. R., Schmitt, B., Rodriguez, M.C., Bradfield, T. A., & Wackerle-Holman, A. K. (2011, February). *Early childhood response to intervention: Using second-generation IGDIs*. [Paper presentation]. National Association of School Psychologists Annual Meeting, San Francisco, CA.
- McConnell, S. R., Rodriguez, M.C., Schmitt, B., & Clayton, K. (2011, February). *Early childhood response to intervention: Using second-generation IGDIs*. [Symposium presentation]. National Association of School Psychologists Annual Meeting, San Francisco, CA
- Good, R.H., Kaminski, R.A., Powell-Smith, K., McConnell, S. R., Rodriguez, M.C., & Greenwood, C. (2011, February). *Developing benchmark goals and cut-points for risk: alternative approaches*. [Panel presentation]. Pacific Coast Research Conference, Coronado, CA.

## 2010

- Wackerle-Holman, A. K. , Bradfield, T. & McConnell, S. R. (2010, October). *Developing a new set of early literacy and language IGDIs*. [Poster presentation]. Summit on Response to Intervention in Early Childhood, Kansas City, MO
- Rodriguez, M. I., Schmitt, B., Bradfield, T. A., Wackerle-Holman, A. K. , & McConnell, S. R. (2010, October) *Measuring Growth in Language and Literacy Development for Young English Language Learners*. [Poster presentation]. International Conference on Young Children with Special Needs and their Families, Division of Early Childhood, Council on Exceptional Children, Kansas City, MO.

- McConnell, S. R., Bradfield, T.A., Greenwood, C.R., Rodriguez, M. C., & Wackerle-Holman, A. K. (2010, October). *Refining and improving measures for response to intervention in early childhood*. [Symposium presentation]. Division of Early Childhood, Council for Exceptional Children Annual Meeting, Kansas City, MO.
- Hojnoski, R. L., Missall, K. N., McColley, C., Windram, H., Snow, L., & Navin-O'Meara, C. (2010, March). *Data-based decision making in preschool: Promoting early academic success*. [Panel presentation]. National Association of School Psychologists, Chicago, IL.
- Hojnoski, R. L., & Missall, K. N. (October, 2010). *One, two, three: A CBM framework for assessing mathematics in preschool*. [Paper presentation]. Council for Exceptional Children, Division of Early Childhood, 26<sup>th</sup> Annual Conference on young Children with Special Needs and Their Families, Kansas City, MO.
- Wackerle-Holman, A. K. , Schmitt, B., Bradfield, T. A., & McConnell, S. R. (2010, February). *How do we best measure phonemic awareness? The development of new Individual Growth and Development Indicators (IGDIs)*. [Poster presentation]. Conference on Research Innovations in Early Childhood, San Diego, CA.
- McConnell, S. R., Missall, K. M., Rodriguez, M.C., & Wackerle-Hollman A. (2010, February). *Monitoring progress on progress monitoring: Recent innovations in the design and evaluation of Individual Growth & Development Indicators*. [Panel presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Hays, A., Wackerle-Holman, A. K. , Bradfield, T. & McConnell, S. R. (2010, February). *What is the meaning of comprehension for preschools? Pioneering progress monitoring tools in a disputed domain*. [Poster presentation]. Conference for Research Innovation in Early Intervention, San Diego CA.
- Bradfield, T. A., Besner, A., Wackerle-Holman, A. K., Schmitt, B., McConnell, S. R., & Jones, K. (2010, February). *Moving beyond picturing naming: The next generation of oral language IGDIs*. [Poster presentation]. Conference for Research Innovation in Early Intervention, San Diego CA
- Bradfield, T. A., Besner, A., Wackerle-Holman, A. K. , McConnell, S. R., Jones, K. (2010, February). *How do we best measure Alphabet Knowledge? The development of new Individual Growth and Development Indicators (IGDIs)*. [Poster presentation]. Conference for Research Innovation in Early Intervention, San Diego CA.

## 2009

- Bradfield, T. A., Wackerle-Holman, A. K. , & McConnell, S. R. (October, 2009). *All New IGDIs: Development and Application within an EC RtI Model*. [Paper presentation]. International Conference on Young Children with Special Needs and their Families, Division of Early Childhood, Council on Exceptional Children, Albuquerque, NM.

## 2008

- McConnell, S. R., Wackerle-Holman, A. K. , Bradfield, T. A., Cadigan, K & Missall, K. (2008, October). *Individual Growth and Development Indicators: What's Up?*. [Panel presentation]. Division of Early Childhood Conference, Minneapolis, MN
- Hojnoski, R. L. (2008, August). *Further evidence for the Preschool Numeracy Indicators*. [Poster presentation]. American Psychological Association. Boston, MA.

Hojnoski, R. L., Floyd, R. G., & Silberglitt, B. (2008, June). *Field validation of the Preschool Numeracy Indicators*. [Poster presentation]. Head Start National Research Conference. Washington, D. C.

Wackerle-Holman, A. K. & McConnell, S. R. (2008, February). *Early literacy progress monitoring: Individual Growth and development indicators*. [Paper presentation]. National Association of School Psychologists, New Orleans, LA.

Shapiro, E., Gonzales, J., Missall, K. N., & Stoiber, K. (2008, February). *Starting early: New directions in assessment of emergent literacy skills*. [Panel presentation]. National Association for School Psychologists. New Orleans, LA.

Roseth, C., & Missall, K. N. (2008, February). *Preschoolers with disabilities: What do we learn from Early Literacy Individual Growth and Development Indicators?*. [Poster presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.

Hojnoski, R. L., Floyd, R. G., & Silberglitt, B. (2008, February). *Field Validation of the Preschool Numeracy Indicators*. [Poster presentation]. Conference on Research Innovations in Early Intervention. San Diego, CA.

## 2007

McConnell, S. R., Wackerle, A. K., Wagner, A., Hays, A., Roverud, J. (2007, March). *Recent Assessment and Intervention Research in Early Literacy Development*. [Paper presentation]. National Association of School Psychologists, New York City, NY.

## 2006

Floyd, R. G., Key, J., & Hojnoski, R. L.P. (2006, March). *Measuring number skills in preschoolers with the Preschool Numeracy Indicators*. [Paper presentation]. National Association of School Psychologists. Anaheim, CA.

## 2005

Missall, K. N. & Anderson, A. R. (2005, April). *A longitudinal examination of literacy development from preschool to kindergarten*. [Paper presentation]. National Association of School Psychologists, Atlanta, GA.

Anderson, A. R., & Missall, K. N. (2005, August). *Examining literacy development from preschool to first grade*. [Poster presentation]. American Psychological Association. Washington, DC.

## 2004

Missall, K. N. (2004, February). *Variation on a theme: Examining rates of literacy growth and classroom variables for diverse groups of children*. [Poster presentation]. Conference on Research Innovations in Early Intervention, San Diego, CA.

McConnell, S. R. & Missall, K. N. (2004, March). *Individual Growth and Development Indicators: Assessing progress in early literacy development from preschool to kindergarten*. [Panel presentation]. DIBELS Summit, Santa Ana Pueblo, New Mexico.

Missall, K.N. (2004, December). *Individual Growth and Development Indicators for assessing early literacy: Links to reading*. [Paper presentation]. Division of Early Childhood Council for Exceptional Children, Chicago, IL.

## 2003



Rodriguez, M. C. (2003, February). *Child performance on pre-K early literacy measures*. [Paper presentation]. Pacific Coast Research Conference, La Jolla, CA.

Missall, K. N., McConnell, S. R., Cadigan, K., & VanAlstine, J. (2003, October). *Do classroom variables influence early literacy development?*. [Paper presentation]. Division of Early Childhood Council for Exceptional Children, Washington, DC.

## 2002

McConnell, S. R., Phaneuf, R., & Busse, D. (2002, December). *Extending language and literacy assessment to diverse populations: IGDI training and evaluation*. [Paper presentation]. Division of Early Childhood 18<sup>th</sup> Annual International Conference on Young Children with Special Needs and Their Families. San Diego, CA.

## 1999

Priest, J., Davis, K., McConnell, S. R., McEvoy, M., & Shin, J. (1999, December). *Individual Growth and Development Indicators of preschoolers' "expressing meaning" skills: Follow that trajectory!*. [Panel presentation]. Division of Early Childhood Council for Exceptional Children, Washington, DC.

McConnell, S. R., Priest, J. S., Davis, K. N., & Madyun, N. (1999, April). *Reliability and validity of three continuous-progress measures of expressing meaning to others for preschool-aged children*. [Paper presentation]. Society for Research on Child Development, Albuquerque, NM.

McConnell, S. R., Priest, J. S., Davis, K. N., & Madyun, N. (1999, February). *Measuring growth and development for infants, toddlers, and young children: Three R and D efforts in the same developmental domain*. [Poster presentation]. Pacific Coast Research Conference, La Jolla, CA.

## Technical Reports

Rodriguez, M.C. (2009). *Technical guidance report #1: Item response theory modeling*. Center for Response to Intervention in Early Childhood, University of Minnesota.  
<https://conservancy.umn.edu/handle/11299/201549>

Rodriguez, M.C. (2010). *Technical guidance report #2: Building a validity framework*. Center for Response to Intervention in Early Childhood, University of Minnesota.  
<https://conservancy.umn.edu/handle/11299/201550>

Rodriguez, M.C. (2010). *Technical guidance report #3: Using contrasting groups design in standard setting*. Center for Response to Intervention in Early Childhood, University of Minnesota. <https://conservancy.umn.edu/handle/11299/201551>

Rodriguez, M.C. (2011). *Technical guidance report #4: The Rasch model*. Center for Response to Intervention in Early Childhood, University of Minnesota.  
<https://conservancy.umn.edu/handle/11299/201552>

Rodriguez, M.C. (2013). *Technical guidance report #5: Rasch score precision and reliability*. Center for Response to Intervention in Early Childhood, University of Minnesota.  
<https://conservancy.umn.edu/handle/11299/201553>

- Rodriguez, M.C. (2013). *Technical guidance report #6: Estimating growth in HLM*. Center for Response to Intervention in Early Childhood, University of Minnesota. <https://conservancy.umn.edu/handle/11299/201554>
- Rodriguez, M.C. (2013). *Technical guidance report #7: Receiver/operator curve (ROC) analysis*. Center for Response to Intervention in Early Childhood, University of Minnesota. <https://conservancy.umn.edu/handle/11299/201555>
- Wackerle-Holman, A. K. , Brunner, S., Durán, L. K., McConnell, S. R., Palma, J., Kohlmier, T., Callard, C., & Rodriguez, M.C. (2012). *Technical report #1: The development of early literacy skills in bilingual and Spanish-speaking preschool-age children: A literature review*. Center for Early Education & Development, University of Minnesota. <http://innovation.umn.edu/igdi/projects/spanish-igdis/>
- Wackerle-Holman, A. K. , Durán, L. K., Brunner, S., Palma, J., Rodriguez, M.C., Kohlmeier, T., & Callard, C. (2014). *Technical report # 2: On demonstrating construct validity using Wilson's model to create S-IGDI pilot measures*. Center for Early Education & Development, University of Minnesota. <http://innovation.umn.edu/igdi/projects/spanish-igdis/>
- Wackerle-Holman, A. K. , Durán, L. K., Rodriguez, M.C., Palma, J., & Brunner, S. (2014). *Technical report #3: Evaluating S-IGDI measures: Iterative decision-making in the development process*. Center for Early Education & Development, University of Minnesota. <http://innovation.umn.edu/igdi/projects/spanish-igdis/>
- Wackerle-Holman, A. K. , Durán, L., Rodriguez, M.C., Brunner, S., Kohlmeier, T., Collard, C., & Palma, J. (2017). *Spanish Individual Growth & Development Indicators: IGDis-Español technical manual*. IGDILab, University of Minnesota. <https://conservancy.umn.edu/handle/11299/201548>
- Schardt, A., Schuster, K., Brandes, D., Wackerle-Hollman, A., & McConnell, S. (2017). *Defining a domain of assessment for language and early literacy in three-year-olds: Phonological awareness*. Technical Report #1, IGDILab, University of Minnesota.
- Schardt, A., Brandes, D., Wackerle-Hollman, A., & McConnell, S. (2017). *Defining a domain of assessment for language and early literacy in three-year-olds: Alphabet knowledge*. Technical Report #2, IGDILab, University of Minnesota.
- Schuster, K., Cai, L., McConnell, S., & Wackerle-Hollman, A. (2017). *Defining a domain of assessment for language and early literacy in 3-year-olds: oral language*. Technical Report #3, IGDILab, University of Minnesota.
- Schuster, K., Schardt, A., Brandes, D., Cai, L., Albano, A., Wackerle-Hollman, A., & McConnell, S. (2017). *Expanding Individual Growth and Development Indicators of language and early literacy for universal screening in multi-tiered systems of support with three-year-olds*. Technical Report #4, IGDILab, University of Minnesota.
- Schuster, K., Schardt, A., & McConnell, S. (2017). *Results of pilot testing eight formats for assessing language and early literacy in young children*. Technical Report #5, IGDILab, University of Minnesota.

- McConnell, S., Lease, E., Wackerle-Hollman, A., Albano, A., Schardt, A., Schuster, K., & Cai, L. (2021). *Testing initial items for alphabet knowledge, phonological awareness, and oral language for three-year-old children: Report of phase 2 results*. Technical Report #6, IGDILab, University of Minnesota.
- Wackerle-Hollman, A., Albano, A., Elmquist, M., Will, K., McConnell, S., Lease, E. (2021). *Standard setting for IGDI language and early literacy measures for 3-year-old children*. Technical Report #7, IGDILab, University of Minnesota.
- Albano, A., McConnell, S., Lease, E., Wil, K., Elmquist, M., & Wackerle-Hollman, A. (2019). *Preliminary results, scales and seasonal assessments of three-year-old students*. Technical Report #8, IGDILab, University of Minnesota.
- Will, K., McConnell, S., Albano, A., Elmquist, M., Lease, E., & Wackerle-Hollman, A. (2021). *Research and development of an oral language measure for 3-year-old children*. Technical Report #9, IGDILab, University of Minnesota.
- Lease, E., Albano, A., Will, K., Elmquist, M., McConnell, S., & Wackerle-Hollman, A. (2021). *Preliminary results, criterion validity analysis*. Technical Report #12, IGDILab, University of Minnesota.

### **Products**

- CEED@UROC (2011). Fall seasonal identification scale, Individual Growth and Development Indicators for oral language: Picture Naming. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Winter seasonal identification scale, Individual Growth and Development Indicators for oral language: Picture Naming. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Spring seasonal identification scale, Individual Growth and Development Indicators for oral language: Picture Naming. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Fall seasonal identification scale, Individual Growth and Development Indicators for alphabet knowledge: Letter Identification. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Winter seasonal identification scale, Individual Growth and Development Indicators for alphabet knowledge: Letter Identification. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Spring seasonal identification scale, Individual Growth and Development Indicators for alphabet knowledge: Letter Identification. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.

- CEED@UROC (2011). Fall seasonal identification scale, Individual Growth and Development Indicators for comprehension: Which One Doesn't Belong. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Winter seasonal identification scale, Individual Growth and Development Indicators for comprehension: Which One Doesn't Belong. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Spring seasonal identification scale, Individual Growth and Development Indicators for comprehension: Which One Doesn't Belong. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Fall seasonal identification scale, Individual Growth and Development Indicators for phonological awareness: Rhyming. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Winter seasonal identification scale, Individual Growth and Development Indicators for phonological awareness: Rhyming. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Spring seasonal identification scale, Individual Growth and Development Indicators for phonological awareness: Rhyming. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Fall seasonal identification scale, Individual Growth and Development Indicators for alphabet knowledge: Sound Identification. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Winter seasonal identification scale, Individual Growth and Development Indicators for alphabet knowledge: Sound Identification. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- CEED@UROC (2011). Spring seasonal identification scale, Individual Growth and Development Indicators for alphabet knowledge: Sound Identification. Unpublished assessment. Center for Response to Intervention in Early Childhood (CRTIEC). University of Minnesota, Minneapolis MN.
- Wackerle-Holman, A. K. , Durán, L. & Rodriguez, M.C. (2015). Individual Growth and Development Indicators-Español Seasonal Screening sets. Early Learning Labs, St. Paul, MN.

**External Grants and Contracts Supporting IGDILab Research, Development, and Application  
(Rounded Funding Values)**

- Title: Improving Preschoolers' Reading Outcomes through Measurement and Intervention in Classroom Environments (I'PROMICE)  
Funder: Office of Special Education Programs, US Department of Education  
Recipient: University of Minnesota (PI: McConnell)  
Amount: \$525,000  
Dates: 8/01 to 8/04
- Title: Early Childhood Research Institute on Program Performance Measures: A Growth and Development Approach  
Funder: Early Education Programs for Children with Disabilities, U.S. Department of Education (PI: McConnell and McEvoy)  
Recipient: University of Minnesota with University of Kansas, Oregon  
Amount: \$4,570,000  
Dates: 10/1/96 to 9/31/01
- Title: Development and Refinement of Web-Based Tools for Continuous-Progress Monitoring and Collaborative Decision-Making: Phase 1 of Get It, Got It, Go!  
Funder: : U.S. Department of Education, Office of Special Education Programs, Steppingstones of Technology Innovation for Students with Disabilities Phase 1 – Development Project  
Recipient: University of Minnesota (PI: McConnell)  
Amount: \$400,000  
Dates: 9/1/00 to 8/31/02
- Title: Center for Response to Intervention in Early Childhood  
Funder: Institute of Education Sciences, US Department of Education  
Recipient: University of Kansas with Universities of Minnesota, Ohio State, Oregon (PI: Carta, Greenwood, McConnell, Goldstein, Kaminski)  
Amount: \$10,000,000  
Dates: 7/08 to 6/13
- Title: Research and Development of Spanish Individual Growth and Development Indicators (S-IGDIs): Early Literacy identification and progress monitoring in Spanish-English bilingual children  
Funder: Institute of Education Sciences, US Department of Education  
Recipient: University of Minnesota (PI: McConnell, Wackerle-Hollman)  
Amount: \$1,600,000  
Dates: 7/1/12 to 6/30/16
- Title: Response to Intervention Universal Screening and Progress Monitoring for statewide implementation  
Funder: Iowa Department of Education  
Recipient: Early Learning Labs and University of Minnesota (PI: Johnson, McConnell)  
Amount: \$800,000  
Dates: 4/13 to 3/17

- Title: IGDI-APEL Individual Growth and Development Indicators- Automated Performance Evaluation of Early Language and Literacy  
Funder: Institute of Education Sciences, US Department of Education  
Recipient: University of Minnesota (PI: Wackerle-Hollman)  
Amount: \$1,500,000  
Dates: 7/14 to 6/18
- Title: Expanding Individual Growth and Development Indicators of Language and Early Literacy for Universal Screening in Multi-Tiered Systems of Support with Three-Year-Olds: A Goal 5 Measurement Proposal  
Funder: Institute of Education Sciences, US Department of Education  
Recipient: University of Minnesota (PI: McConnell, Wackerle-Hollman)  
Amount: \$1,400,000  
Dates: 7/16 to 6/20
- Title: Making Progress With Progress Monitoring: Developing Individual Growth and Development Indicators As Progress Monitoring Tools  
Funder: Institute of Education Sciences, US Department of Education  
Recipient: University of Minnesota, Washington, Lehigh (PI: Wackerle-Hollman, Missall, Hojnoski)  
Amount: \$1,600,000  
Dates: 7/16 to 6/20
- Title: Addressing the Growing Diversity of Preschool Populations through Low Incidence Language Barriers: Hmong Language Development to Improve Assessment Approaches  
Funder: Researcher-Practitioner Partnerships in Education Research, National Center For Education Research, Institute of Education Sciences, U.S. Department of Education  
Recipient: St Paul Public Schools and University of Minnesota (PI: Erickson, Wackerle-Hollman)  
Amount: \$400,000  
Dates: 8/17 to 7/19
- Title: Engaging Spanish-English preschool teachers to make data- based decision in authentic settings: Individual Growth and Development Indicators- Automated Application for Performance Evaluation of Early Language and Literacy in Spanish (IGDI-APEL Español)  
Funder: Small-Business Innovation Research, Institute of Education Sciences, US Department of Education  
Recipient: Early Learning Labs (PI: Johnson, Wackerle-Hollman)  
Amount: \$150,000  
Dates: 2016
- Title: Expanding Early Language and Literacy Spanish Individual Growth and Development Indicators to Monitor Progress  
Funder: Institute of Education Sciences, US Department of Education

Recipient: University of Minnesota (PI: Wackerle-Hollman, Durán)  
Amount: \$1,400,000  
Dates: 8/16 – 7/20

Title: Individual Growth and Development Indicators - Automated Performance Evaluation of Early Language and Literacy in Spanish (IGDI-APEL Español)

Funder: Institute of Education Sciences, US Department of Education

Recipient: University of Minnesota (PI: Wackerle-Hollman)  
Amount: \$1,400,000  
Dates: 8/20 – 7/24

Title: Computer Adaptive Storybook Assessment (CASA)

Funder: Institute of Education Sciences, US Department of Education

Recipient: University of Minnesota, Oregon (PI: Wackerle-Hollman, Durán)  
Amount: \$2,000,000  
Dates: 8/21 to 7/25

Title: Individual Growth and Development Indicators for Hmong Preschool Age Children

Funder: Institute of Education Sciences, US Department of Education

Recipient: University of Minnesota (PI: Wackerle-Hollman)  
Amount: \$2,000,000  
Dates: 8/21 to 7/25

Title: Development of a Responsive Computerized-Adaptive Assessment System for PreK Mathematics

Funder: Institute of Education Sciences, US Department of Education

Recipient: Lehigh University, University of Washington, California - Davis (PI: Hojnosk, Missall, Albano)  
Amount: \$1,400,000  
Dates: 8/21 – 7/25