Curriculum Vitae

NAME:

Irvin	**Dwight**	**W.**
Last Name	*First Name*	*Middle Initial*

EDUCATION:

DEGREE	DEPARTMENT/DISCIPLINE	INSTITUTION	DATE AWARDED
Ph.D.	Education	University of North Carolina Chapel Hill, NC	2012
M.A.	Social Science	University of Amsterdam Amsterdam, the Netherlands	2004
B.A.	Political Science	University of Florida Gainesville, FL	2002

EMPLOYEMENT HISTORY:

Start/End Dates	Title, Department (Asst. Prof; Asst. Librarian, etc.)	Institution
2023-present	Associate Prof; College of Education; affiliate in the Anita Zucker Center for Excellence in Early Childhood Studies	University of Florida
2023-present	Adjunct Researcher Affiliate; Juniper Gardens Children's Project	University of Kansas
2022-2023	Associate Research Prof; Juniper Gardens Children's Project	University of Kansas
2016-2022	Assistant Research Prof; Juniper Gardens Children's Project	University of Kansas
2016-2017	Research Advisor; Dept. of Occupational Therapy Education	University of Kansas
2015-2016	Postdoc Scholar; Dept. of Educational Leadership Studies & Human Development Institute	University of Kentucky
2012-2015	Postdoc Fellow; Juniper Gardens Children's Project	University of Kansas
2010-2012	Research Asst; Frank Porter Graham Child Development Institute	UNC-Chapel Hill
2011	READS Specialist	Communities in Schools

2010	Research Asst; Dept. of Speech and Hearing Sciences	UNC-Chapel Hill
2009	Research Asst; Dept. of Speech and Hearing Sciences	UNC-Chapel Hill
2008	Research Asst; Dept. of Early Childhood, Special Ed. and Literacy	UNC-Chapel Hill
2007	Research Asst; Dept. of Early Childhood, Special Ed. and Literacy	UNC-Chapel Hill

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Research Record

A. Research Publications

- **Major Publications (Refereed)**

  Note: ***** = student or trainee-led papers; **Key for contributions** = **<u>C</u>**, conceptual/idea generation and development; **<u>A</u>**, analytic/methodological; **<u>WP</u>**, writing/Primary first draft generation/direction; **<u>WS</u>** writing/Substantive contribution to writing, edits and revisions

1. Walker, D., Buzhardt, J. Jia, F., Schnitz, A., **Irvin, D.W.,** & Greenwood, C. R. (in press). Technical features of the early cognitive problem-solving indicator (EPSI) progress monitoring measure for infants and toddlers. *Topics in Early Childhood Special Education.* (Contributions = WS)

2. Greenwood, CR., Higgins, S., McKenna, M., Buzhardt, J., Walker, D., Jun, A., **Irvin, D.W.,** & Grasley-Boy, N. (2022). Using Individual Growth and Development Indicators (IGDIs) for infants and toddlers remotely. *Journal of Early Intervention, 44*(2), 168-189. (Contributions = WS)

3. *Lileikyte, R., **Irvin, D.W.**, & Hansen, J.H.L. (2022). Assessing child communication engagement and statistical speech patterns via speech recognition in naturalistic active learning spaces. *Speech Communication,140*, 98-108. (Contributions = WS)

4. *Wallisch, A., **Irvin, D..W.**, Kearns, W., Luo, Y., Boyd, B., & Rous, B. (2022). Exploring a novel tool to measure wandering behavior in the early childhood classroom. *OTJR: Occupation, Participation and Health , 42*(2), 137-145. (Contributions = C, WS)

5. Buzhardt, J., Wallisch, A., **Irvin, D.W.,** Boyd, B., Salley, B., & Jia, F. (2022) Exploring growth in expressive communication for infants and toddlers with autism spectrum disorder. *Journal of Early Intervention, 44*(1), 3-22. (Contributions = C, A, WS)

6. Greenwood, C. R., Carta, J. J., **Irvin, D. W.,** & Schnitz, A. G. (2021). Advancing children's learning through innovations in the measurement of literacy engagement. *Topics in Early Childhood Special Education, 41*(3), 191-206. (Contributions = WS)

7. Greenwood, C. R., Carta, J., Schnitz, A., Higgins, S., Buzhardt, J., Walker, D., Jia, F., & **Irvin, D.W.** (2021). Progress toward a technically sound early social indicator (ESI) for infants and toddlers. *Journal of Early Intervention, 43*(2), 176-195. (Contributions = WS)

8. **Irvin, D.W.,** Luo, Y., Huffman, J., Grassley-Boy, N., Rous, B., & Hansen, J. (2021). Capturing talk and proximity in the classroom: Advances in measuring features of young children's friendships. *Early Childhood Research Quarterly, 57,* 102-109*.* (Contributions = C, A, WP)

9. Mason, R. Gunersel, A.B., **Irvin, D. W.,** Wills, H., Gregori, E., An, Z., & Ingram, P. B. (2021). From the frontlines: Perceptions of paraeducators' roles and responsibilities. *Teacher Education and Special Education*, 0888406419896627. (Contributions = C, A, WS)

10. Bigelow, K.M., Walker, D., Jia, F., & **Irvin, D.W.** & Turcotte, A.D. (2020). Text messaging as an enhancement to home visiting: Building parents' capacity to improve child language-learning environments. *Early Childhood Research Quarterly, 51,* 416-429*.* (Contributions = A, WS)

11. Greenwood, C.R., Schnitz, A. G., Carta, Wallisch, A., & **Irvin, D.W.** (2020) A systematic review of language intervention research with low-income families: A word gap prevention perspective. *Early Childhood Research Quarterly Special Issue, 50,* 230-245*.* (Contributions = WS)

12. **Irvin, D. W.,** Bigelow, K. M., Turcotte, A., Eastwood-Tallmon, N., & Wallisch, A. (2020). Talk Around Town: A mobile phone application to support parent–child talk in the community. *Families in Society*, *101*(1), 21-33. (Contributions = C, A, WP)

13. Mason, R., Wills H., **Irvin, D.W.,** Jia, F., & Kamps, D. (2020). Ecobehavioral assessment of paraeducator behaviors that support engagement of students with disabilities. *Exceptional Children 86*(4), 413-429. (Contributions = C, A, WS)

14. Greenwood, C. R., Carta, J. J., Schnitz, A. G., **Irvin, D. W.,** Jia, F., & Atwater, J. (2019). Filling an information gap in preschool MTSS and RTI decision making. *Exceptional Children*, *85*(3), 271-290. (Contributions = WS)

15. Hansen, J. H., Najafian, M., Lileikyte, R., **Irvin, D.W.,** & Rous, B. (2019). Speech and language processing for assessing child–adult interaction based on diarization and location. *International Journal of Speech Technology*, *22*(3), 697-709. (Contributions = WS)

16. Little, L.M., Rojas, J.P., Bard, A., Luo, Y., **Irvin, D.W.,** & Rous, B., (2019). Automated measures to understand communication opportunities for young children with autism in the community: A pilot study. *Occupation, Participation and Health, 39(2),* 124-130. (Contributions = C, A, WP)

17. Greenwood, C.R., Beecher, C., Atwater J., Petersen, S., Schiefelbusch, J., & **Irvin, D.W.** (2018). An eco-behavioral analysis of child academic engagement: Implications for preschool children not responding to intervention. *Topics in Early Childhood Special Education, 37*(4), 219-233. (Contributions = WS)

18. Greenwood, C. R., Schnitz, A., **Irvin, D.W.,** Tsai, S. F., Carta, J. & the Bridging the Word Gap National Research Network (2018). Automated Language Environment Analysis: A research synthesis. *American Journal of Speech-Language Pathology*, *27*(2), 853-867. (Contributions = A, WS)

19. Greenwood, C. R., Walker, D., Buzhardt, J. **Irvin, D.W.,** Schnitz, A., & Jia, F. (2018) Update on the EMI for Infants and Toddlers. *Topics in Early Childhood Special Education, 38*(2), 105-117. (Contributions = WS)

20. **Irvin, D.W.,** Bard, A., Wallisch, A., & Little, L.M. (2018). Measuring social communication in the community: Novel tools for advancing family participation. *American Journal of Occupational Therapy, 72*(6), 1-10. (Contributions = C, A, WP)

21. **Irvin, D.W.,** Crutchfield, S.A., Greenwood, C.R., Kearns, W.D. & Buzhardt, J. (2018). An automated approach to measuring child movement and location in the early childhood classroom. *Behavior Research Methods, 50*(3), 890-901. (Contributions = C, A, WP)

22. **Irvin, D.W.,** Ingram, P., Huffman, J., Mason, R., Wills, H. (2018). Exploring paraprofessional and classroom factors affecting teacher supervision. *Research in Developmental Disabilities, 73,* 106-114. (Contributions = C, A, WP)

23. **Irvin, D.W.,** Crutchfield, S.A., Greenwood, C.R., Simpson, R.L., Sangwan, A., & Hansen, J.H.L. (2017). Exploring classroom behavioral imaging: Moving closer to effective and data-based early childhood inclusion planning. *Advances in Neurodevelopmental Disorders, 1*(2), 95-104. (Contributions = C, A, WP)

24. Lefever, J.B., Bigleow, K., Carta, J., Borkowshi, Grandfield, E., McCune, L., **Irvin, D.W.**, Warren. S.F. (2017). Long-term impact of a cell phone enhanced parenting intervention. *Child Maltreatment, 22*(4), 305-314. (Contributions = WS)

25. Sanders, E.J., **Irvin, D.W.**, Belardi, K., McCune, L. Boyd, B.A., & Odom, S.L. (2016). The questions children with autism spectrum disorder encounter in the inclusive preschool classroom. *Autism, 20,* 96-105. (Contributions = C, A, WS)

26. **Irvin, D.W.,** Boyd, B.A., & Odom, S.L. (2015a). Adult talk in the inclusive classroom and the socially competent behavior of preschoolers with autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities, 30*(3), 131-142. (Contributions = C, A, WP)

27. **Irvin, D.W.,** Boyd, B.A., & Odom, S.L. (2015b). Child and setting characteristics affecting the adult talk directed at preschoolers with autism spectrum disorder in the inclusive classroom. *Autism, 19*(2), 223-234. (Contributions = C, A, WP)

28. **Irvin, D.W.,** Hume, K., Boyd, B.A., McBee, M.T., & Odom, S.L. (2013). Child and classroom characteristics associated with the adult language provided to preschoolers with autism spectrum disorder. *Research in Autism Spectrum Disorders, 7*(8), 947-955. (Contributions = C, WP)

29. Dykstra, J., Sabatos-DeVito, M., **Irvin, D.W.**, Boyd, B.A., Hume, K.A., & Odom, S.L. (2012). Using the language environment analysis (LENA) system in preschool classrooms with children with autism spectrum disorders. *Autism, 17*(5), 582-594. (Contributions = C, A, WS)

30. **Irvin, D.W.,** McBee, M.T., Boyd, B.A., Hume, K., & Odom, S.L. (2012). Child and family factors associated with the use of services for preschoolers with autism spectrum disorder. *Research in Autism Spectrum Disorders, 6,* 565-572. (Contributions = C, WP)

- **Works Submitted**

1. Nowell, S., Steinbrenner, J, Wallisch, A., Salley, B., McGovern, J., McGauley, S., Watson, L., Irvin, D.W., Buzhardt, J., Boyd, B., (under review). Adapting the early communication indicator as a social-communication outcome measure for young autistic children: A pilot study. *Autism.* (Contributions = WS)

2. Greenwood, C.R, **Irvin, D.W.,** Schnitz, A.G., Buzhardt, J. (under review). The search for STEM in the preschool classroom. *Science Education.* (Contributions = C, WP)

3. Foster, T.J., Justice, L.M., Villasanti, H.G., **Irvin, D.W**., & Messinger, D.S. (under review). Classroom sensing tools: Revolutionizing classroom-based research in the 21st century. *Topics in Early Childhood Special Education*. (Contributions = WS)

4. Seven, Y., **Irvin, D.W.,** Kothalkar, P., Dutta, S., Buzhardt, J., Rous, B., & Hansen J.H.L. (under review). Capturing the quantity and location of adult wh-words in the preschool classroom using a sensing tool system. *Early Childhood Research Quarterly*. (Contributions = C, WS)

5. **Irvin, D.W.,** Rous, B., Luo, Y., Lane, J., Wallisch, A., Rojas, J., Irvin, A.E., Bergstrom, H., & Grassley-Boy, N. (under review). Advances in measuring talk on the early childhood playground. *Occupational Therapy Journal of Research* (Contributions = C, A, WP)

6. *Kothalkar, P., Hansen, J.H.L, **Irvin, D.W.**, & Buzhardt, (under review). Teacher-Student Learning based Acoustic Models for Robust Speech Recognition in Naturalistic Childhood Classroom settings. *Speech Communication* (Contributions = C)

7. Greenwood, C.R, Durran, L., Guerrero, G. **Irvin, D.W.,** & Schnitz, A.G., (under review). Do Preschool Teachers Differentiate Literacy Instruction based on Language Proficiency? *Early Education and Development* (Contributions = C, WS)

- **Ready for Submission**
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- **Minor Publications**
  o **Invited**

1. Little, L. M., Wallisch, A., & **Irvin, D.W.**, (2016). Interdisciplinary assessment of social-emotional development for young children with developmental disabilities, *SIS Quarterly Practice Connections, 1*(3), 2-4. (Contributions = C, WS)

  o **Manuals & Book Chapters**

1. Bigelow, K., Carta, J., **Irvin, D.W.,** Hemmeter, M.L. (2019). *Teaching Pyramid Infant-Toddler Observation Scale (TPITOS)*. Baltimore, MD: Brookes Publishing. (Contributions = C, WS)

2. **Irvin, D.W.**, Patten, E., & Boyd, B.A. (2014). Service use among young children with autism spectrum disorder. In V. Preedy (Ed.), *The Comprehensive Guide to Autism*. New York, NY: Springer. (Contributions = C, WP)

  o **Conference Papers**

1. Dutta, S., Reyna, J., Buzhardt, J., **Irvin, D.W.,** & Hansen, J.H.L. (2022, September). *Can Smartphones be a cost-effective alternative to LENA for Early Childhood Language Intervention?* 2022 Speech for Social Good Workshop. (Contributions = C).

2. Dutta, S., Tao, S.A., Reyna, J., Hacker, R.E., **Irvin, D.W.,** Buzhardt, J., & Hansen, J.H.L. (2022, September) *Challenges remain in Building ASR for Spontaneous Preschool Children Speech in Naturalistic Educational Environments.* Proc. Interspeech, 4322-4326. (Contributions = C)

3. Dutta, S., **Irvin, D.W.,** Buzhardt, J., & Hansen, J.H.L. (2022, July) *Activity focused Speech Recognition of Preschool Children in Early Childhood Classrooms.* In Proceedings of the 17th

Workshop on Innovative Use of NLP for Building Educational Applications, pp. 92-100. 2022. (Contributions = C)

4. Datla, S., Kothalkar, P., Hansen, J.H.L., **Irvin, D.W.,** & Buzhardt J. (2022, March). *Visualizing child-adult engagement in preschool classrooms using Chord Diagrams.* ASEE-GSW--2022: American Soc. of Engineering Education - Gulf-SouthWest Section Conf., Prairie View, TX. (Contributions = C)

5. Kothalkar, P., **Irvin, D.W.,** Buzhardt, J. & Hansen, J.H.L. (2022, March). *Improving WH-question word detection in naturalistic audio from preschool classroom using self-attention embeddings.* ASEE-GSW--2022: American Soc. of Engineering Education - Gulf-SouthWest Section Conf., Prairie View, TX. (Contributions = A, C, WS)

6. Tao, S.A., Dutta, S., Seven, Y., Kothalkar, P., **Irvin, D.W.,** Buzhardt, J., & Hansen J.H.L. (2022, March). *Quantifying engagement in preschool classrooms: Conversational turn-taking & topic initiations.* ASEE-GSW--2022: American Soc. of Engineering Education - Gulf-SouthWest Section Conf., Prairie View, TX. (Contributions = C)

7. Kothalkar, P., Dutta, S., Seven, Y., **Irvin, D.W.,** Buzhardt, J., & Hansen, J.H.L. (2021, July). *Measuring frequency of child-directed WH-words for alternate preschool locations using speech recognition and location tracking technologies.* ACM ICMI: Workshop on Bridging Social Sciences and AI for Understanding Child Behavior. (Contributions = A, C, WS)

8. Luo, Y., **Irvin, D.W.,** Buss, N., Gutierrez, A., & Rous. B. (2020, December). *Outdoor Playground Localization system for tracking young children using Ubisense sensor network.* The Third International Workshop on Smart Living with IoT, Cloud, and Edge Computing (SLICE). Delhi, India. (Contributions = A, C, WS)

9. Lileikyte, R., **Irvin, D.W**., Hansen, J.H.L. (2020, November). *Assessing child communication engagement via speech recognition in naturalistic active learning spaces.* Odyssey workshop. Shanghai, China. (Contributions = A, WS)

10. Kothalkar, P., **Irvin, D.W.**, Luo, Y., Rojas, J., Nash, J. Rous, B., & Hansen, J.H.L (2019, September). *Tagging child-adult interactions in naturalistic, noisy, daylong school environments using i-vector based diarization system.* Speech and Language Technology in Education (SLaTE) Workshop. Graz, Austria. (Contributions = A, WS)

11. Najafian, M., **Irvin, D.W**., Luo, Y., Rous, B., & Hansen, J.H.L. (2016, September). *Automatic measurement and analysis of the child verbal communication using classroom acoustics within a child care center.* Workshop on Child Computer Interaction. San Francisco, CA. (Contributions = A, WS)

12. Najafian, M., **Irvin, D.W**., Luo, Y., Rous, B., & Hansen, J.H.L. (2016, July). *Employing speech and location information for automatic assessment of child language environments.* Sensing, Processing and Learning for Intelligent Machines (SPLINE). Aalborg, Denmark. (Contributions = A, WS)

13. Sangwan, A., Hansen, J.H.L., **Irvin, D.W.**, Crutchfield, S.A., & Greenwood, C.R. (2015, August). *Studying the relationship between physical and language environments of children: Who's speaking to whom and where?* IEEE Signal Processing & SP Education Workshop. Salt Lake City, Utah. (Contributions = A, C, WS)

B. Scholarly Presentations

- **Major Presentations (** = invited)**

1. **Irvin, D.W.** (2023, March). Using Sensing Tools to Examine Talk Within Locations of the Early Childhood Inclusive Classroom. Presentation at Society for Research on Child Development, Salt Lake City, UT.

2. Elbaum, B., Messinger, D., Justice, L., Villasanti, H. G., **Irvin, D.W.,** L., Perry, Foster, T., Pelfrey, L. (2023, March). Technology, Data, and Development in Preschool Pre-Conference. Presentation at Society for Research on Child Development, Salt Lake City, UT.

3. Tao, S.A., Dutta, S. Hacker, R.E., **Irvin, D.W.,** Buzhardt, J., Hansen, J.H.L. (2022, December) Curating feedback for parents based on interactions during parent-child book reading activities. The 183rd Meeting of the Acoustical Society of America. (Contributions = C)

4. Murali, A., Dutta, S., Shekar, M.M.C., **Irvin, D.W.,** Buzhardt, J., Hansen, J.H.L. (2022, December) Towards developing Speaker Diarization for parent-child interactions. The 183rd Meeting of the Acoustical Society of America. (Contributions = C)

5. Datla, S., Dutta, S., Reyna, J., Buzhardt, J., **Irvin, D.W.,** Hansen, J.H.L. (2022, December) Analyzing field audio of parent-child book reading activities across various audio capture devices. The 183rd Meeting of the Acoustical Society of America. (Contributions = C)

6. Kim, G. Y., Eddy, M. M., Behrens, S. A., **Irvin, D. W.**, Bigelow, K. M., Grasley-Boy, N. M., & Schnitz, A. G. (2022, September). Validating Teaching Pyramid Infant-Toddler Observation Scale (TPITOS). Presented at a Joint Conference from the International Society on Early Intervention (ISEI) and the 38th Division for the Early Childhood (DEC).

7. Dutta, S., **Irvin, D.W.,** & Hansen, J.H.L. (2022, July) Preschool Children Speech Recognition for Early Childhood Intervention: Motivation and Challenges. NAACL Student Research Workshop (SRW). (Contributions = C)

8. ****Irvin, D.W.** (2022, April). *Novel tools for measuring and enriching young children's language environments.* Crane Center For Early Childhood Research and Policy at The Ohio State University, Columbus, OH.

9. Buzhardt J., **Irvin, D.W.,** Kothalkar, P., Datla, S., Hansen, J.H.L., & Consolver, K. (2022, February). *Automatic speech recognition during parent reading activities: Smartphones vs. LENA.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

10. **Irvin, D.W.,** Justice, L., & Messinger D. (2022, January). *Using sensing technologies in the classroom to better understand children's experiences and development.* Presented at the Annual IES Principal Investigators Meeting. Washington, D.C.

11. **Irvin, D.W.,** Justice, L., & Messinger D. (2022, February). *Using sensing technologies in early childhood settings to better understand children's experiences and development.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

12. **Irvin, D.W.,** Schnitz, A.G., Guerrero, G., Colaco, K.J., Grasley-Boy, N., & Greenwood, C.R. (2022, February). *Establishing benchmarks of teacher literacy instruction and child response.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

13. Kothalkar, P., Datla, S., Hansen, J.H.L., **Irvin, D.W.,** Buzhardt J., & Consolver, K. (2022, February). *Visualizing child-adult speech engagement using chord diagrams for audio recorded in preschool classroom.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

14. Bigelow, K.M., Schnitz, A.G., **Irvin, D.W.,** Feldmiller, S., Behrens, S., & Eddy, M. (2021, September). *Practice-based coaching to support teachers' Pyramid Model practices.* The 37th Annual Convention of the Division of Early Childhood.

15. Kothalkar, P., **Irvin, D.W.,** Buzhardt, J., Rous, B., & Hansen, J.H.L. (2021, April). *Detecting WH keywords spoken by preschool teachers during science activities using automatic speech recognition technologies.* Poster presented at Society for Research on Child Development. Online.

16. Schnitz, A., Greenwood, C.R., & **Irvin, D.W.** (2021, January). *Literacy 3D: A professional development intervention to increase Tier 1.* Presented at The Division for Early Childhood's 36th Annual International Conference. Online.

17. **Irvin, D.W.,** Schnitz, A.G., Guerrero, G., Colaco, K.J., Grasley-Boy, N., & Greenwood, C.R (2021, September). *New benchmarks of teacher literacy instruction and child response.* Presented Virtually at The Division for Early Childhood International Conference

18. Bigelow, K., Carta, J., Schnitz, A., **Irvin, D.W.,** Jun, A., Hemmeter, M.L. (2020, February). *The pyramid model in infant-toddler child care: Challenges in research and implementation.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

19. **Irvin, D.W.**, Schnitz, A.G., & Greenwood, C.R. (2020, February). *Improving data-based decision making for preschoolers who are unresponsive to literacy instruction.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

20. Buzhardt, J., **Irvin, D. W.,** Hansen, J. H. L., Kothalkar, P., Consolver, K., Luo, Y., & Rous, B. (2020, August). *Automatic Measurement of Teachers' Talk: Indicators of Location and Quality in Science Activities.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

21. Rous, B., **Irvin, D.W.,** & Buzhardt, J. (2020, February). *Using technological advances to enhance EI/ECSE research.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

22. Schnitz, A., Wallisch, A., Carta, J., Messerly, A., & **Irvin D.W**. (2020, February). *Enhancing the language environments in early child care: A pilot study of a LENA grow intervention.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

23. Wallisch, A., **Irvin, D.W.,** Kearns, W., Luo, Y., Boyd, B.A., & Rous, B. (2020, February). *Advancements in measuring wandering in the early childhood classroom.* Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

24. Buzhardt, J., **Irvin, D.W.**, Walker, D., Consolver, K., Cisler, B., Greenwood, C.R. (2020, January). *Development of a web application to individualize data-driven decision-making for diverse family needs and service delivery models.* Presented at the Annual IES Principal Investigators Meeting. Washington, D.C.

25. **Irvin, D.W.**, Schnitz, A.G., & Greenwood, C.R. (2020, January). *Adding precision to data-based, intervention-decision making for individual children who are not responsive to preschool literacy instruction.* Presented at the Annual IES Principal Investigators Meeting. Washington, D.C.

26. **Irvin, D.W.**, Schnitz, A.G., Guerrero, G., & Greenwood, C.R. (2019, October). *Improving data-based decision making for children who are not responsive to preschool literacy instruction or intervention.* Presented at The Division for Early Childhood International Conference. Dallas, TX.

27. Schnitz, A.G., **Irvin, D.W.,** Greenwood, C.R., & Carta, J.J (2019, October). *Literacy 3D: A tier 1 professional development intervention to increase literacy instruction.* Presented at The Division for Early Childhood International Conference. Dallas, TX.

28. Bigelow, K.M., Carta, J.J., **Irvin, D.W.,** & Hemmeter, M.L. (2019, June). *Supporting the Implementation of the pyramid model in early education settings for infants and toddlers.* Presented at the International Society on Early Intervention. Sydney, Australia.

29. Carta, J.J., Wallisch, A., Schnitz, A. G., Messerly, A., **Irvin, D.W.**, & Greenwood, C.R. (2019, June). *First look at a language coaching intervention based on LENA data feedback to promote child care providers' interactions with infants and toddlers.* Presented at the International Society on Early Intervention Conference. Sydney, Australia.

30. Schnitz, A., Greenwood, C.R., & **Irvin, D.W.** (2019, March). *Increasing preschool children's opportunities to learn language and literacy.* In K.H. Qi (Chair) *Relationships between early language and behavior problems.* Symposium at the Society for Research in Child Development, Baltimore, MD.

31. Bigelow, K., Walker, D., Jia, F., & **Irvin, D.W.** (2019, January). *Using text messages to build parents' capacity to improve child language-learning opportunities.* Presented at Summit on Quality in Home Visiting Programs. Washington, D.C.

32. Greenwood, C.R. Schnitz, A.G., & **Irvin, D.W.** (2019, January). *The effects of Literacy 3D: Preschool cohort 1 preliminary outcomes.* Presented at Annual IES Principal Investigators Meeting. Washington, D.C.

33. Bigelow, K., **Irvin, D.W.**, Carta, J. & Hemmeter, M. L. (2018, October). *Teaching Pyramid Infant-Toddler Observation Scale: A tool for measuring social-emotional teaching practices.* Presented at The Division for Early Childhood International Conference. Orlando, FL.

34. Little, L.M., **Irvin D.W.,** Rojas, J., Bard, A., Luo, Y., & Rous, B. (2018, April*). Community participation and language opportunities for children with and without autism spectrum disorder.* Presented at The American Occupational Therapy Association Conference. Salt Lake City, UT

35. Little, L.M., Rojas, J., Bard, A., & **Irvin D.W.,** (2018, April). *Advances in measuring the community language environment children with autism spectrum disorder experience.* Presented at Gatlinburg Conference on Research and Theory of Intellectual and Developmental Disabilities. San Diego, CA.

36. Bigelow K., **Irvin, D.W.,** Turcotte, A., Wallisch, A. & Eastwood-Tallmon, N. (2018, March). *Talk Around Town: A mobile app to bridge the word gap.* Presented at the Conference on Research Innovations in Early Intervention. San Diego, CA.

37. Buzhardt, J. Cary, M.S., & **Irvin, D.W.** (2018, March). *So, you want to develop an app for that? Adventures in translating ideas into usable applications.* Presented at the Conference on Research Innovations in Early Intervention. San Diego, CA.

38. Buzhardt, J. & **Irvin, D.W.,** Schnitz, A. Jia, F. Walker, D. Greenwood, C.R. (2018, March). *Long-term implementation of progress monitoring practices in infant-toddler programs and its relationship to child outcomes.* Presented at the Conference on Research Innovations in Early Intervention. San Diego, CA.

39. **Irvin. D.W.,** Little, L.M., Rojas, J.P., Bard, A.L.E, Luo, Y., & Rous, B. (2018, March). *Understanding language environments in the community among children with autism spectrum disorder.* Presented at the Conference on Research Innovations in Early Intervention. San Diego, CA.

40. Buzhardt, J., **Irvin. D.W.,** Bigelow, K., (2017, June). *Technology to support individualization of intervention strategies in early childhood education settings.* Presented at The International Society for Technology in Education. San Antonio, TX.

41. **Bigelow K., **Irvin, D.W.,** Turcotte, A., & Eastwood-Tallmon, N. (2017, April). *Talk Around Town: A mobile app to bridge word gap.* Presented at Society for Research in Child Development. Austin, TX.

42. **Bigelow K., Walker, D., Turcotte, A., Jia, F., & **Irvin, D.W.** (2017, April). *Using text messaging to build parents' capacity to improve child language-learning opportunities.* Presented at Society for Research in Child Development. Austin, TX.

43. Greenwood, C.R., Schnitz, A. & **Irvin, D. W.** (2017, April). *Systematic review of research using the LENA.* Presented at S*ociety for Research in Child Development. Austin, TX.

44. ****Irvin, D.W.,** Crutchfield, S, Greenwood, C, & Buzhardt. J. (2017, April). *Technology for mapping child location in the early childhood classroom: Moving toward capturing real-time interactions across the school day.* Presented at Society for Research in Child Development. Austin, TX.

45. Rojas, J.P., Bard, A.L.E, Luo, Y., **Irvin, D.W.**, Little, L.M., & Rous, B. (2016, October). *Understanding language environments that children with autism spectrum disorder experience in the community.* Presented at The Division for Early Childhood International Conference. Louisville, KY.

46. Mason, R. A., Wills, H.P., Bast, D., Colvin, M., **Irvin, D.W.,** Kamps, D., Veatch, M. (2016, April). *Increasing the capacity of instructional personnel: Collaborative exploration and idea generation through the framework of a research-practice partnership.* Presented at The American Educational Research Association Annual Meeting. Washington D.C.

47. **Irvin, D.W.**, Crutchfield, S., Greenwood, C. R. (2016, February). *Advances in measuring the location and movement of children with disabilities in the early childhood inclusive classroom.* Presented at The Conference on Research Innovations in Early Intervention. San Diego, CA.

48. Crutchfield, S., **Irvin, D.W.**, Greenwood, C. R., Warren, S., Hansen, J. H. L., & Sangwan, A. (2015, October). *Validating a real-time location system for use in the preschool classroom*. Presented at The Division for Early Childhood International Conference. Atlanta, GA.

49. **Irvin, D.W.**, Crutchfield, S., Greenwood, C. R., Warren, S., Hansen, J. H. L., & Sangwan, A. (2015, October). *Examining the language environment of the inclusive preschool classroom through*

location analysis. Presented at The Division for Early Childhood International Conference. Atlanta, GA.

50. **Irvin, D.W.**, Bigelow, K., Carta, J., & Baggett, K. (2014, February). *The Pyramid Infant-Toddler Observation Scale (TPITOS): The way forward in creating a healthy social-emotional classroom environment for infants and toddlers.* Presented at The Conference on Research Innovations in Early Intervention. San Diego, CA.

51. Sanders, E., **Irvin, D.W.**, Belardi, K., McCune, L., Boyd, B.A., & Odom, S. L. (2013, October). *Questions in inclusive classrooms for children with autism spectrum disorders: Educational implications.* Presented at The Division for Early Childhood International Conference. San Francisco, CA.

52. Sanders, E., **Irvin, D.W.**, Belardi, K., McCune, L., Boyd, B.A., & Odom, S. L. (2013, March). *The questions preschoolers with autism spectrum disorder experience in the inclusive classroom.* Presented at Gatlinburg Conference on Research and Theory of Intellectual and Developmental Disabilities. San Antonio, TX.

53. Harper, H., **Irvin, D.W.**, & Pierce, P. (2012, October). *Cross cultural perceptions of disability.* Presented at The Division for Early Childhood International Conference. Minneapolis, MN.

54. **Irvin, D.W.**, Boyd, B.A., Common, E., Morris, K., & Odom, S.L. (2012, March). *Child characteristics affecting adult talk in the inclusive classroom and the resulting socially competent behavior of preschoolers with autism spectrum disorder.* Presented at Gatlinburg Conference on Research and Theory of Intellectual and Developmental Disabilities. Annapolis, MD.

55. **Irvin, D.W.**, Boyd, B.A., Morris, K., Common, E., & Odom, S.L. (2012, March). *Factors affecting adult talk in the inclusive classroom and the resulting social competent behavior of preschoolers with autism spectrum disorder.* Presented at Conference on Research Innovations in Early Intervention. San Diego, CA.

56. Boyd, B.A., Odom, S.L., McBee, M.T., & **Irvin, D.W.**, (2011, November). *Measuring the social symptoms and social behaviors of children with autism spectrum disorder.* Presented at The Division for Early Childhood International Conference. National Harbor, MD.

57. Hume, K., Boyd, B.A., Sabatos-DeVito, M., Dykstra, J., **Irvin, D.W.**, & Odom, S.L. (2011, May). *Using natural language samples (LENA) as a treatment outcome measure for preschool children with autism.* Presented at The International Society on Early Intervention. New York, NY.

58. **Irvin, D.W.**, Boyd B.A., McBee, M.T., Hume K., & Odom, S.L. (2011, May). *State differences and comprehensive treatment model characteristics affecting the receipt of educational and therapeutic services for school-aged children with autism spectrum disorder.* Presented at The International Meeting for Autism Research. San Diego, CA.

59. Hume, K., Boyd, B.A., Sabatos-DeVito, M., Dykstra, J., **Irvin, D.W.**, & Odom, S.L. (2011, April). *An analysis of adult language in classrooms serving young children with autism spectrum disorders.* Presented at LENA Users Conference. Denver, CO.

60. **Irvin, D.W.**, Boyd B.A., McBee, M.T., Hume K., & Odom, S.L. (2011, March). *Factors affecting the receipt of educational and therapeutic services for school-aged children with autism spectrum disorder.* Presented at Gatlinburg Conference on Research and Theory of Intellectual and Developmental Disabilities. San Antonio, TX.

61. Harper, H., **Irvin, D.W.**, & Pierce. P. (2010, July). *Including children with disabilities: Discussing hopes, practices and needs.* Presented at The International Step-by-Step Association Conference. Riga, Latvia.

62. **Irvin, D.W.**, (2010, July). *Social communication strategies for young children with and without disabilities.* Presented at The International Step-by-Step Association Conference. Riga, Latvia.

63. Dykstra, J., Sabatos-DeVito, M. **Irvin, D.W.**, Boyd, B.A., Hume, K., & Odom. S.L. (2010, May). *Exploring the use of the Language Environment Analysis (LENA) system in preschool classrooms of children with autism spectrum disorders.* Presented at The International Meeting for Autism Research. Philadelphia, PA.

64. Boyd, B.A., Hume, K., Dykstra, J., **Irvin, D.W.**, Sabatos-DeVito, M., & Odom, S.L. (2010, March). *Using LENA as a treatment outcome measure for preschool children with autism: Initial findings and limitations.* Presented at The Gatlinburg Conference on Research and Theory of Intellectual and Developmental Disabilities. Annapolis, MD.

65. Able, H., **Irvin, D.W.**, & Glazer, J. (2009, October). *Impact of service learning of early educators' dispositions toward diversity and inclusion.* Presented at The Division for Early Childhood International Conference. Albuquerque, NM.

66. **Irvin, D.W.**, & Job, J. (2009, April). *Hostetler's well-being in the globalization of higher education.* Presented at The Southeastern Association of Educational Studies Conference. Chapel Hill, NC.

67. Glazier, J., Able, H., Charpentier, A., **Irvin, D.W.**, Coffey, H., Moore, K., & Ewell, S. (2009, April). *A transformational journey: A framework for pre-service learning about diversity through service learning.* Presented at The American Educational Research Association Conference. San Diego, CA.

- **Minor Presentations**

1. **Irvin, D.W.**, & Bigelow, K., (2021, May). *Teaching Pyramid Infant-Toddler Observation Scale (TPITOS): Reliability online training.* Pennsylvania Office of Child Development and Early Learning.

2. Schnitz, A., & **Irvin, D.W.** (2021, April). *Teaching Pyramid Infant-Toddler Observation Scale (TPITOS): Reliability online training.* Iowa Department of Education.

3. Bigelow, K., **Irvin, D.W.**, & Schnitz, A. (2018, April). *Teaching Pyramid Infant-Toddler Observation Scale (TPITOS): Reliability training.* Presented at the 15th National Training Institute on Effective Practices. St. Petersburg, FL.

4. **Irvin, D.W.,** Bigelow K., Turcotte, A., Wallisch, A. & Eastwood-Tallmon, N. (2018, April). *Talk Around Town.* Presented at the 15th National Training Institute on Effective Practices. St. Petersburg, FL.

5. Carta, J., Bigelow, K., Schnitz, A., & **Irvin, D.W.** (2017, April). *Teaching Pyramid Infant-Toddler Observation Scale (TPITOS): Reliability training.* Presented at the 14th National Training Institute on Effective Practices. St. Petersburg, FL.

6. Carta, J., Bigelow, K., **Irvin, D.W., &** Schnitz, A. (2016, April). *Teaching Pyramid Infant-Toddler Observation Scale (TPITOS): Reliability training.* Presented at the 13th National Training Institute on Effective Practices. St. Petersburg, FL.

7. Carta, J., Bigelow, K., **Irvin, D.W.,** Amilivia, J., Tsai, S-F., & Crutchfield, S. (2015, April). *Teaching Pyramid Infant-Toddler Observation Scale (TPITOS): Reliability training.* Presented at the 12th National Training Institute on Effective Practices. St. Petersburg, FL.

8. **Irvin, D.W.**, Patten, E., & Flippin, M. (2009). *Social communication for young children with autism.* Greensboro & Durham, NC.

C. Grants and/or other Funded Projects

Funded

1. 04/04/2022-04/04/2023   **Principal Investigator**
Using Data to Build the Capacity of Teachers to Support Preschool Children Not Making Progress in Learning Literacy. KU Research Go, University of Kansas. (Co-PI: Charles Greenwood) ($29,965). Submitted 01/19/2022.

2. 04/01/2021-06/30/2024   **Principal Investigator at KU site**
Longitudinal Peer Social Networks and Early Language Development: Transforming Understanding of Critical Features of Young Children's Classroom Experiences. Lyle Spencer Research Award. (PI: Laura Justice; PI at UM site: Daniel Messinger; Co-PIs at KU site: Brian Boyd and Jay Buzhardt) ($1,000,000; $318,009 to KU). Submitted 07/22/20.

3. 08/01/2020-06/30/2025   **Co-Investigator**
Validation of an Outcome Measure of Early Social-communication for Young Children with ASD. National Institutes of Health. (PI: Brian Boyd, Linda Watson; Co-I: Brenda Salley, Jay Buzhardt) ($2,783,114). Submitted 11/22/2019.

4. 09/01/2020-08/31/2025   **Mentor**
Postdoctoral Research Training in Special Education: A Research to Practice Model. Institute for Educational Sciences. US Department of Education. (PI: Wills; Co-PI: Boyd; Mentors: Irvin and Shogren) ($760,000). Submitted 08/29/2019.

5. 09/01/2019- XX/XX/202X   **Principal Investigator**
Collaborative Research: CSL-MultiAD: Assessing Collaborative STEM Learning through Rich Information Flow based on Multi-Sensor Audio Diarization. National Science Foundation. (PI: John Hansen; Co- PI: Buzhardt) ($750,000: $300,000 to KU and $450,000 to UT-Dallas). Submitted 01/14/2019.
   Research Experiences for Undergraduates (REU) supplement. (PI: Hansen; Co-PIs: Irvin & Buzhardt) ($16,000). Submitted 06/24/20.

6. 2019   **Co-Principal Investigator**
Developing a Measurement model for Capturing Speech, Location and Physical Activity on the Early Childhood Playground. NIH Kansas Intellectual and Developmental Disabilities Research Center and University of Kentucky Early Childhood Research and Development Initiative. (Co-PI: Beth Rous) ($20,000). Submitted 05/29/2019.

7. 07/01/2019- XX/XX/202X   **Co-Principal Investigator**

Professional Development to Support Intervention Implementation of the Promoting Communication Tools for Advancing Language in Kids (PC TALK) for Infants and Toddlers at Risk for or with Disabilities. Institute of Education Sciences. US Department of Education. (PI: Kathryn Bigelow; Co-PI: Dale Walker) ($1,400,000). Submitted 08/23/2018.

8. 07/01/2018-08/31/2020   **Mentor**

Post-Doctoral Research Training Program in Special Education: Evidence-Based Practice in Early Intervention and Early Learning. Institute of Education Sciences. US Department of Education. (PI: Carta, J.; Co-PI: Greenwood, Mentors: Hoffman, Bigelow, Buzhardt, Schnitz, and Walker) ($744,000). Submitted 08/17/2017.

9. 08/15/2018- XX/XX/202X   **Co-Principal Investigator**

Development of a Multi-Component Professional Development Package for Paraprofessionals (MCPD-Para) of Students with Severe Disabilities including Autism. Institute of Education Sciences. US Department of Education. (PI: Rose Mason; Co-PI: Howard Wills and Alana Schnitz) ($1,400,000; $474,997 to KU). Submitted 08/17/2017.

10. 2018   **Co-Investigator**

Pre-pilot of LENA Grow in Educare. State of Kansas Children's Cabinet. (PI: Judith Carta; Co-Is: Anna Wallisch) ($19,000). Submitted 11/17/2017.

11. 07/01/2018-06/30/2019   **Co-Investigator**

Start Young. Communities Aligned in Early Development and Education (a public-private collaborative) through the Family Conservancy and the State of Kansas Children's Cabinet and Trust Fund. (PI: Judith Carta; Co-Is: Alana Schnitz and Anna Wallisch) ($123,000). Submitted 04/30/2018.

12. 07/01/2017- XX/XX/202X   **Principal Investigator**

Validity Studies of the Classroom Code for Interactive Recording of Children's Learning Environments (CIRCLE) (Version 2.0). Institute of Education Sciences. US Department of Education. (Co-PIs: Charles Greenwood and Alana Schnitz) ($1,400,000). Submitted 08/04/2016. Transferred to PI 1/17/2020.

13. 07/01/2017- XX/XX/202X   **Co-Principal Investigator**

The Effects of Promoting Engaging Early Literacy Interactions in Preschool Environments: Literacy 3D). Institute of Education Sciences. US Department of Education. (PI: Alana Schnitz Co-PI: Charles Greenwood) ($3,300,000). Submitted 08/04/2016.

14. 07/01/2017- XX/XX/202X   **Co-Principal Investigator**

Technology to Support Data-based Decision Making for Infant-Toddler Educators: Development and Pilot Testing of the Making Online Decisions – Problem Solving Tool. Institute of Education Sciences. US Department of Education. (PI: Jay Buzhardt; Co-PI: Dale Walker) ($1,400,000). Submitted 08/04/2016.

15. 07/01/2017- XX/XX/202X   **Co-Investigator**

Professional Development to Support Teachers' Implementation of a Tiered Model for Promoting Social-Emotional Development of Infants and Toddlers. Institute of Education Sciences. US Department of Education. (PI: Kathryn Bigelow; Co-PIs: Judith Carta and Mary Louise Hemmeter) ($1,400,000). Submitted 08/04/2017.

16. 2017   **Co-Principal Investigator**
Talk Around Town. Bridging the Word Gap Challenge – Phase II. Health Resources and Services Administration. (PI: Kathryn Bigelow; Co-I: Nick Eastwood-Tallmon) ($25,000). Submitted 09/22/2016.

17. 2016   **Co-Principal Investigator**
Talk Around Town. Bridging the Word Gap Challenge – Phase I. Health Resources and Services Administration. (PI: Kathryn Bigelow; Co-I: Nick Eastwood-Tallmon) ($10,000). Submitted 12/31/2015.

18. 09/22/2016-05/31/2022   **Research Scientist**
Clinical Outcomes/Bio-behavioral Technology Core of Kansas Intellectual and Developmental Disabilities Research Center. National Institute of Child Health and Human Development (Director: John Colombo; Co-Director: Peter Smith) ($5,400,000). Submitted 02/17/2016.

19. 07/01/2015-06/30/2021   **Co-Investigator**
Validation of Cognitive Problem-Solving and Movement Infant-Toddler IGDIs for Screening and General Outcome Progress Monitoring. Institute of Education Sciences. US Department of Education. (PI: Dale Walker; Co-PIs: Charles Greenwood and Jay Buzhardt) ($1,600,000). Submitted 08/07/2014.

20. 09/01/2014-08/31/2021   **Workgroup Member**
Bridging the Word Gap Research Network. Health Resources and Services Administration. (PI: Judith Carta; Co-PIs: Charles Greenwood and Dale Walker) ($2,100,000). Submitted 07/07/2014.

21. 07/01/2014-06/30/2017   **Statistical and Data Analyst**
Improving Paraprofessionals' Instructional and Behavioral Support in Urban Elementary School Settings: A Research Practitioner Partnership. Institute of Education Sciences. US Department of Education. (PI: Debra Kamps; Co-Is: Howard Wills, Rose Mason, Michelle Covin and Kimberly Shaw) ($399,883). Submitted 09/04/2013

22. 07/01/2015-04/08/2016   **Co-Investigator**
Tiered Quality Rating and Improvement System Pilot. Race to the Top Fund. Department of Education. (PI: Beth Rous; Co-I: John Nash) ($500,000). Submitted 05/15/2015.

23. 2015   **Principal Investigator**
Understanding Language Environments in Community Settings in Families of Children with Autism Spectrum Disorder. HDI Fund for Excellence Endowment. (Co-Is: Joanne Rojas and Ying Luo) ($10,000). Submitted 10/15/2015.

24. 2010   **Co-Principal Investigator**
Including Children with Disabilities: Cross-cultural Perceptions of Practices, Hopes, and Needs. The

European Union Center of the University of North Carolina at Chapel Hill Faculty and Graduate Student Joint Project Award. (PI: Hillary Harper; Co-PIs: Patsy Pierce and Brian Boyd) ($5,000). Submitted 1/28/2010.

Pending

1. XX/XX/2023-   **Principal Investigator at UF site**
Collaborative Research: Social-Emotional Analysis of the Language Environment (SEAL): Key Word & Phrase Spotting in Early Childhood Care Settings. NSF. (PI: Kathy Bigelow, Co-PI: John Hansen) ($246,182 to complete Y1 activities; XX to UF). Submitted 07/15/22.

Currently Revising

1.   **Principal Investigator**
From Data to Decisions: Supporting Preschool Teachers in Promoting the Literacy Learning of Children with Disabilities. IES. (PI: Dwight Irvin, Co-PI: Laura Justice, Jay Buzhardt, and John Hansen) ($2,000,000). Submitted 09/08/22.

2.   **Principal Investigator**
Dual-process explorations in how an infant's ability to move helps or hinders their learning language skills IES. (PI: Dwight Irvin, Co-PI: Jay Buzhardt) ($1,700,000). Submitted 09/06/22.

3.   **Co-Principal Investigator**
Hybrid Professional Development to Address Pandemic-Related Social-Emotional Learning Loss in Toddlers. Institute of Education Sciences. US Department of Education. (PI: Kathryn Bigelow, Co-PI: Alana Schnitz,) ($1,999,970). Submitted 09/09/2021.

4.   **Co-Principal Investigator**
Accelerating Infant-toddler Language Growth by Increasing Parents' Implementation of Individualized Evidence-based Practices. US Department of Education. (PI: Jay Buzhardt, Co-PI: Dale Walker) ($1,291,316). Submitted 09/09/2021.

5.   **Principal Investigator**
Teachers Asking Science WH & How Questions (TASQ): Key Word Spotting in Preschool Classrooms. National Science Foundation. Research on Emerging Technologies for Teaching and Learning (RETTL). (Co-PIs: Brian Boyd, Jay Buzhardt, PI: John Hansen) ($850,000). Submitted 10/18/21.

6.   **Principal Investigator**
Enhancing Parent-child Interactions in the Community (EPIC): Improving Language Outcomes for Infant-Toddlers at-risk for or with Language Delays/disabilities. Institute of Education Sciences. US Department of Education. (Co-PI: Jay Buzhardt and Kathy Bigelow; Co-I: Anna Wallisch) ($1,400,000). Submitted 08/21/2019 and resubmitted 1 time.

Unfunded

1. 2020-2024   **Co-Principal Investigator**

Systematic Replication of Web-based Data-driven Decision Making to Improve Infant-Toddler Language Growth: Efficacy with Parents as Teachers Home Visiting Model. Institute of Education Sciences. US Department of Education. (PI: Jay Buzhardt, Co-PI: Dale Walker) ($4,000,000). Submitted 08/20/2020.

2. 2021-2026   **Co-Principal Investigator**
AI Institute for Pedagogy and Assessment using World Simulators (AI-PAWS). NSF. (PI: Golden at UT-Dallas; PI at KU site: Jay Buzhardt) ($20,000,000; $789,866 to KU). Submitted 12/10/2020.

3. 2020-2022   **Principal Investigator**
Using Speech and Location Sensors to Examine and Enhance the Language Environments of Young with Autism Spectrum Disorder. National Institutes of Health Loan Repayment Program. (Primary Mentor: Brian Boyd). Submitted 11/15/2018 and resubmitted 1 time.

4. 2020-2022   **Principal Investigator**
Understanding the Link Between Random Movement and Elopement in Young Children with ASD. National Institutes of Health. (PI: Dwight Irvin; Co-I: Brian Boyd, Brenda Salley, & Claudia Dozier) ($275,000). Submitted 02/16/20.

5. 2020-2021   **Co-Principal Investigator**
Developing a Sensing Systems Network in Early Education. AERA Planning Grant. (PI: Laura Justice; Co-PI: Daniel Messinger and Sidney D'mello ($25,000). Submitted 03/04/20.

6. 2020-2021   **Co-Principal Investigator**
SCC-PG: The Impact of Data-Driven Architecture on Population Health Initiatives. National Science Foundation. (PI: Joe Colistra; Co-PI: Jay Buzhardt) ($150,000). Submitted 09/06/2019.

7. 2020-2023   **Co-Principal Investigator**
Applying State-of-the-Art Tech Tools to Early-Learning Settings: Developing and Testing the Tech in Early Ed (TED) Sensing System. Institute for Educational Sciences Unsolicited Funds. (PI: Laura Justice; Co-PI: Daniel Messinger; Co-I: Brian Boyd and Jay Buzhardt) ($468,000). Submitted 03/02/20.

8. 2020-2022   **Principal Investigator**
Promoting Physical Activity in Low-income Young Children in the Home and Community via a Wayfinding App. National Institutes of Health. (Co-I: Kathryn Bigelow and Christopher Cushing) ($275,000). Submitted 02/16/2018.

9. 2018-2022   **Co-Principal Investigator**
Measuring Interactions in ClassroomS (MICS): Automated Measurement of Elementary Students' Engagement in Science Learning Activities. National Science Foundation. (PI: Jay Buzhardt; Co-PIs: Doug Huffman, John Hansen) ($3,000,000). 1st submission 11/14/2017 and resubmitted 2 times.

10. 2018-2021   **Principal Investigator**
Measuring Interactions in ClassroomS (MICS): An Automated System to Monitor Inclusion and Social

Engagement of Young Children with Intellectual and Developmental Disabilities and Delays. Institute of Education Sciences. US Department of Education. (Co-PI: Jay Buzhardt, John Hansen and Charles Greenwood) ($1,400,000). 1st submission 08/17/2017 and resubmitted 1 time.

11. 2018-2020   **Co-Principal Investigator**
KC Talks: Helping Early Educators Enhance Children's Early Language Environments to Improve Children's School Readiness. Greater Kansas City Community Foundation. (PI: Judith Carta) ($500,000). Submitted 04/03/2018.

12. 2017-2021   **Co-Principal Investigator**
Talk Around Town: Identifying Benchmarks and Supporting Parent-Child Conversational Turns in Community Settings for Young Children with Autism Spectrum Disorder Using a Mobile App. National Institutes of Health. (Co-PI: Kathryn Bigelow) ($275,000). 1st submission 02/16/2017 and resubmitted 2 times.

13. 2017   **Co-Principal Investigator**
Talk Around Town. Bridging the Word Gap Challenge – Phase III. Health Resources and Services Administration. (PI: Kathryn Bigelow; Co-I: Nick Tallmon) ($75,000). Submitted 03/27/17.

14. 2017-2019   **Co-Principal Investigator**
Teachers and Parents Together: Improving Preschoolers' Language Outcomes to Promote Kindergarten Readiness. Greater Kansas City Community Foundation. (PI: Kathryn Bigelow). ($500,000). Submitted 03/17/2017.

15. 2015-2020   **Consultant**
Early Head Start University Partnership: Building the Evidence Base for Social-communication Interventions for Infant/toddler Center-based Programs. Administration for Children and Families, Department of Health Resources and Services. (PI: Judith Carta; Co-PIs: Kathleen Baggett, Kathryn Bigelow and Dale Walker) ($2,500,000). Submitted 07/06/2015.

16. 2015-2017   **Principal Investigator**
Examining the Language Environment of Preschoolers with Autism Spectrum Disorder in the Inclusive Classroom with Location and Movement Analysis. National Institutes of Health. (Co-Is: Stephen Crutchfield, Kathy Thiemann-Bourque, and Pascal Deboeck) ($275,000). Submitted 10/14/2014 and resubmitted 2 times.

17. 2015-2017   **Co-Principal Investigator**
Understanding Language Environments in Community Settings in Families of Children with Autism. Organization for Autism Research. (Co-PI: Lauren Little) ($30,000). 1st submission 08/10/2014 and resubmitted 1 time.

18. 2014-2018   **Early Childhood Content Advisor**
Development of Preschool Professional Development Program that Sticks: STICKS-P (Sustainable Training and Instructional Coaching of Knowledge and Skills for Preschool). Institute of Education

Sciences. US Department of Education. (PI: Jay Buzhardt; Co-PIs: Howard Wills and Maura Linas) ($1,500,000). Submitted 09/04/2013.

D. Honors and Awards for Research

1. 2012-2015   IES Post-Doctoral Training Program in Special Education: Response to Intervention (RTI) in Early Childhood
2. 2012   UNC Graduate and Professional Student Federation Travel Award
3. 2011-2012   UNC Graduate Student Association Conference Participation Award
4. 2007-2011   U.S. Department of Education Doctoral Leadership Grant Participant
5. 2010   UNC European Union Center Graduate Student Research Travel Award
6. 2010   UNC School of Education One-Time Graduate Travel Award

E. Teaching

Spring 2017   Co-Instructor
OCTH 790: Research Practicum and Professional Writing
University of Kansas Medical Center, KS

Spring 2016   Co-Instructor
HDI 602-001: Interdisciplinary Supports
Human Development Institute, Lexington, KY

Summer 2014   Co-Instructor
SPED 854: Family and Interprofessional Collaboration in Special Education
University of Kansas, Overland Park, KS

Spring 2014   Guest Lecturer
SPED 860: Education of Children and Youth with Disabilities: II
University of Kansas, Overland Park, KS

Spring 2012   Teaching Assistant
OCCT 992: Research Seminar in Occupational Science
University of North Carolina, Chapel Hill, NC

Fall 2009   Co-Instructor
EDUC 412: Learning and Development
University of North Carolina, Chapel Hill, NC

Fall 2008   Teaching Assistant
EDUC 501: Preschool-Kindergarten Assessment and Teaching Strategies
University of North Carolina, Chapel Hill, NC

Spring 2008   Teaching Assistant
                 EDUC 662: Emergent Literacy
                 University of North Carolina, Chapel Hill, NC

2006-2007   Mentor/Instructor
                 Child Development Associate (CDA) program
                 Episcopal Children's Services, Jacksonville, FL

F. Dissertation Committees

Prasanna Kothalkar – Electrical Engineering at UT-Dallas
Dissertation title: TBD

Midia Yousefi – Electrical Engineering at UT-Dallas
Dissertation title: Deep Learning Based Methods for Detection, Separation, and Recognition of Overlapping Speech
Graduated 2021

Anna Wallisch – Occupational Therapy at KUMC
Dissertation title: Early Identification in Autism: Subtypes Based on Child, Family, and Community Characteristics.
Graduated 2018

G. Related Experience

2011-2012   Graduate Assistant
                 Office of Student Affairs at UNC School of Education
                 Chapel Hill, NC

2010-2011   America Reads Coach Mentor
                 Student Coalition for Action Literacy Education
                 Carrboro, NC

2005-2006   Screening/Inclusion Specialist
                 Episcopal Children's Services
                 Jacksonville, FL

2004-2005   Family Services Specialist
                 Episcopal Children's Services
                 Jacksonville, FL

H. Service

2022   Guest Editor, Early Childhood Research Quarterly Special Issue

2021	Guest Reviewer, Dutch Research Council
2019-present	Editorial Board Member, Journal of Early Intervention
2017-2023	KU Lawrence IRB board committee member
2016-present	Editorial Board Member, Topics in Early Childhood Special Education
2016-present	Guest Reviewer, Journal for Autism and Developmental Disorders
2014-present	Guest Reviewer, Journal of Speech, Language, and Hearing Research
2012-2016	Guest Reviewer, Journal of Early Intervention
2010-2011	UNC Graduate Student Association Co-Social Chair