

**DAVID JAMES PURPURA, PhD**  
College of Health and Human Sciences  
Department of Human Development and Family Studies  
Purdue University  
1200 W. State St. Rm. 223  
West Lafayette, IN 47907  
Email: purpura@purdue.edu

---

## **POSITIONS**

### *Current Positions*

Director, Center for Early Learning, Purdue University, 2022 - *present*

Professor, Human Development and Family Studies, College of Health and Human Sciences, Purdue University, *August 2022-present*

Professor, Psychological Sciences – College of Health and Human Sciences, Purdue University, *August 2022-present* (courtesy appointment)

### *Past Positions*

Co-Director, Center for Early Learning, Purdue University, 2020 – 2022

Associate Professor, Human Development and Family Studies, College of Health and Human Sciences, Purdue University, 2018 –2022

Associate Professor, Psychological Sciences – College of Health and Human Sciences, Purdue University, 2018 –2022 (courtesy appointment)

Assistant Professor, Human Development and Family Studies, College of Health and Human Sciences, Purdue University, 2012 –2018

Assistant Professor, Psychological Sciences – College of Health and Human Sciences, Purdue University, 2014 –2018 (courtesy appointment)

## **EDUCATION**

*University of Illinois at Urbana-Champaign, Champaign, IL*

August 2010 - August 2012

Institute of Education Sciences Postdoctoral Research Fellow

College of Education – Curriculum & Instruction (Mathematics Education)

*Florida State University, Tallahassee, FL*

August 2010 Doctor of Philosophy in Clinical Psychology

Institute of Educational Sciences Predoctoral Fellow, Florida Center for Reading Research

Dissertation: “Informal number-related mathematics skills: An examination of the structure of and relations between these skills in preschool”

*Florida State University, Tallahassee, FL*

June 2007 Master of Science in Clinical Psychology

Thesis: “Can Externalizing Behavior Symptoms be Altered by an Early Reading Intervention?”

*Purdue University, West Lafayette, IN*

May 2005, Bachelor of Arts in Psychology, with honors

## **LEADERSHIP EXPERIENCE**

- Chair – *Mathematical Cognition and Learning Society* - 2022
- Chair-Elect – *Mathematical Cognition and Learning Society* - 2021
- Purdue College of Health and Human Sciences Strategic Plan Roadmap Committee, Chair – 2021
- Governing Board Member – *Mathematical Cognition and Learning Society* – 2020-present
- Director/Co-Director, Center for Early Learning 2020-present
- Graduate Committee, Co-Chair, *Purdue Department of Human Development and Family Studies* – July 2020-present
- Faculty Search Committee Chair – Spring 2018, Fall 2018

## **FUNDED GRANTS**

### Key Personnel – Active Grants

2022-2025	Principal Investigator, <i>STEM Ed PRF: The PURPOSE Postdoctoral Training Initiative</i> , National Science Foundation, \$1,250,000
2022-2023	Co-Principal Investigator (Connor O’Rear, PI), <i>A tool for aligning parent-driven math activities with children’s math skills</i> , Caplan Foundation, \$49,896.
2021-2023	Principal Investigator, <i>Promoting Math Language in Dual Language Learners through Picture Books: Evaluating Technological Supports for Dialogic Reading</i> , Heising-Simons Foundation, \$775,809.
2020-2024	Principal Investigator, <i>Reading and Playing with Math: Promoting Preschoolers’ Math Language through Picture Books and Play Activities</i> , Institute of Education Sciences, \$1,399,800.
2020-2023	Principal Investigator, <i>My Math Stories: Taking My Place in Our Mathematical World</i> , NewSchools Venture Fund, \$2,000,000.
2020-2024	Co-Principal Investigator (Robin Hojnoski, PI), <i>Development of a Responsive Computerized-Adaptive Assessment System for PreK Mathematics</i> , Institute of Education Sciences, \$1,398,544.
2020-2023	Co-Principal Investigator (Sara Schmitt, PI), <i>Examining cognitive connections and mechanisms between block play and mathematics</i> . National Science Foundation, \$1,347,369.63.
2019-2024	Principal Investigator, <i>Learning from picture books: Enhancing at-risk preschool children’s math skills</i> , United States Department of Agriculture Hatch Award.
2018-2023	Principal Investigator, <i>CAREER: Mechanisms Underlying the Relation between Mathematical Language and Mathematical Knowledge</i> , National Science Foundation, \$1,680,378.
2018-2023	Co-Principal Investigator (Sara Schmitt, PI), <i>Evaluation of the Indiana Early Learning Expansion Program</i> , Indiana Family and Social Services Administration, \$1,193,243.

### Key Personnel – Completed Grants

- 2020-2022 Principal Investigator, *Refining our understanding of the home math environment in the early years: An interdisciplinary working conference*, National Science Foundation, \$99,248.11.
- 2016-2021 Principal Investigator, *Engaging preschool children in math language at home: The development and evaluation of a family-implemented storybook intervention*. The Heising-Simons Foundation. \$858,049.00.
- 2015-2020 Co-Investigator (Megan McClelland, PI), *Red Light, Purple Light! Developing a Self-Regulation Intervention for Children At-risk for School Difficulty*, Institute of Education Sciences. \$1,500,000.
- 2017-2019 Principal Investigator, *ISTAR-KR Enhancement Project*. State of Indiana and Early Learning Indiana. \$733,011.00.
- 2015-2018 Co-Principal Investigator (Sara Schmitt, PI), *Evaluation of the Indiana Early Learning Pilot Grant Program*, State of Indiana. \$1,400,607.
- 2013-2018 Investigator (Doug Powell, PI), *Department of Defense Child Care Curriculum Development*, National Institute of Food and Agriculture. \$4,545,455.
- 2015-2017 Co-Principal Investigator (Doug Clements, PI), *Evaluating the Efficacy of Learning Trajectories in Early Mathematics*, Institute of Education Sciences. \$3,453,981.
- 2015-2016 Principal Investigator, *The Language of Mathematics: Delineating the Role of Language in Early Mathematics Development*, Clifford B. Kinley Trust. \$20,000.

### Consultant/Advisory Board

- 2022-2026 Consultant (Colleen Ganley, PI), *Unpacking the Mechanisms of the Math Anxiety-Math Achievement Link Through Intervention*, National Science Foundation.
- 2020-2023 Consultant (Gina Nelson, PI), *An investigation of effective methods that parents and childcare providers use to improve math achievement in informal learning environments*, National Science Foundation.
- 2020-2021 Consultant (Victoria Simms, PI), *HELM: Home Environments Supporting Learning Mathematics: Understanding the Impact of the Home Environment on Early Mathematical Development in a Global Context*, British Academy's Early Childhood Education Programme.
- 2019-2022 Consultant (Tricia Zucker, PI), *Teaching together: Engaging parents and preschoolers in STEM activities & academic conversations*, National Science Foundation.
- 2017-2021 Advisory Board Member (Leanne Ketterlin Geller, PI), *Measures of Mathematical Reasoning Skills*, National Science Foundation.
- 2016-2020 Consultant (Arthur Baroody, PI), *Development of the Electronic Test of Early Numeracy (e-TEN)*, National Science Foundation.

- 2015-2018 *Advisory Board Member* (Jeffrey Karpicke, PI), *Computer-Based Guided Retrieval Practice for Elementary School Children*, Institute of Education Sciences.
- 2015-2019 *Consultant* (Jason Anthony, PI), *Development of Math and Science Domains of the School Readiness Curriculum Based Measures*, Institute of Education Sciences.
- 2012-2016 *Advisory Board Member* (Robert Schoen, PI), *Replicating the CGI Experiment in Diverse Environments*, Institute of Education Sciences.

#### **AWARDS AND HONORS**

- 2021-2025 Purdue University Faculty Scholar Award
- 2020 Purdue Trailblazer Award for Outstanding Mid-Career Research and Scholarship
- 2019-2021 United States Department of State Fulbright Global Scholar Award
- 2017 Purdue College of Health and Human Sciences Early Career Research Achievement Award
- 2015-2016 Teaching for Tomorrow Award
- 2011 Outstanding Institute of Education Sciences Predoctoral Fellow
- IES Postdoctoral Research Fellowship in Mathematics Education (2010-2012)
- IES Predoctoral Interdisciplinary Research Training Program Fellowship (2005-2010)
- Best Student Poster Focused on Assessment –2008 APA Conference
- Emerging Leaders in Assessment Travel Award –2008 APA Conference

#### **PUBLICATIONS**

<sup>§</sup> indicates graduate student co-author

<sup>u</sup> indicates undergraduate student co-author

<sup>p</sup> indicates postdoctoral researcher as co-author

#### **Journal Articles**

**Purpura, D. J.**, O’Rear<sup>p</sup>, C., Ellis<sup>p</sup>, A., Logan, J. A. R., King<sup>§</sup>, Y., Westerberg<sup>§</sup>, L., Cosso<sup>§</sup>, M. J., Zippert<sup>p</sup>, E., Napoli<sup>§</sup>, A. R., Hornburg<sup>p</sup>, C. B., Schmitt, S. A., & Dobbs-Oates, J. (accepted Stage 1 In Principle Acceptance of Registered Report). Unique and combined effects of mathematical language and numeracy instruction: A picture book intervention. *Journal of Educational Psychology*.

Schmitt, S. A., Elicker, J. G., **Purpura, D. J.**, Duncan, R. J., Schmerold, K. Budrevich, A., & Bryant, L. M. (in press). The effects of a high quality state-run prekindergarten program as rated by a Quality Rating and Improvement System on children’s school readiness. *Early Childhood Research Quarterly*.

Westerberg<sup>§</sup>, L., Schmitt, S. A., Eason, S. H., & **Purpura, D. J.** (2022). Home science interactions and their relation to children’s science core knowledge in preschool. *Journal of Experimental Child Psychology*, 222, 105473.

Cosso<sup>§</sup>, J., **Purpura, D. J.**, Maeda, Y., & Bofferding, L. (2022). The home mathematics environment of dual-language learning children and their early mathematics skills. *Journal of Applied Developmental Psychology*, 81, 101434.

Wijns, N., **Purpura, D. J.**, & Torbeyns, J. (2022). Stimulating preschoolers’ repeating patterning ability by means of dialogic picture book reading. *Journal of Educational Psychology*.

- Cosso<sup>g</sup>, J., Ellis<sup>p</sup>, A., O’Rear<sup>p</sup>, C., Zippert<sup>p</sup>, E., Schmitt S., **Purpura D. J.** (2022). Conceptualizing the factor structure of parents’ math anxiety and associations with children’s mathematics skills. *Annals of the New York Academy of Sciences*, 1511, 119-132.
- Becker<sup>u</sup>, M., Litkowski<sup>p</sup>, E. C., Duncan, R. J., Schmitt, S. A., Elicker, J., & **Purpura, D. J.** (2022). Parent math anxiety and mathematical performance of pre-kindergarten children. *Journal of Experimental Child Psychology*, 214, 105302.
- ten Braak<sup>g</sup>, D., Lenes, R., Purpura., D. J., Schmitt, S. A., Størksen, I. (2022). Why do early mathematics skills predict later mathematics and reading achievement? The role of executive function. *Journal of Experimental Child Psychology*, 214, 105306.
- Ireland, M., Bryant, L., Finders, J., Duncan, R., **Purpura, D. J.**, & Schmitt, S. A. (2022). Unpacking associations between food insecurity, inhibitory control, and body mass index in preschoolers. *Journal of Developmental & Behavioral Pediatrics*, 43, e255-e262.
- Scalise, N., & **Purpura, D. J.** (2022). Numerical development in preschool: Examining potential mediators of children’s approximate number system and mathematics achievement. *Journal of Educational Psychology*, 114, 1192-1204.
- Ellis<sup>p</sup>, A., Susperreguy, M. I., **Purpura, D. J.**, & Davis-Kean, P. E. (2021). Replicating the relation between the number line estimation task and mathematical competence across seven studies. *Journal of Numerical Cognition*, 7, 435-452.
- Finders, J. K., Budrevich, A., Duncan, R. J., **Purpura, D. J.**, Elicker, J., & Schmitt, S. A. (2021). Variability in preschool CLASS scores and children’s school readiness. *AERA Open*, 7, 1-19.
- Schmitt, S. A., Geldhof, G. J., **Purpura, D. J.**, Duncan, R. J., & McClelland, M. M. (in press). Commentary on Ellis et al. (2021). *Journal of Numerical Cognition*, 7, 476-478.
- Schmitt, S. A., Finders, J., Duncan, R., J., Korucu, I., Bryant, L., **Purpura, D. J.**, & Elicker, J. (2021). Examining transactional relations between behavioral self-regulation and social-emotional functioning during the transition to kindergarten. *Developmental Psychology*, 57, 2093.
- Finders, J. K., Duncan, R. J., Korucu, I., Bryant, L. B., **Purpura, D. J.**, & Schmitt, S. A. (2021). Examining additive and synergistic relations between preschool self-regulation and executive function skills: Predictions to academic outcomes. *Frontiers in Psychology*, 12, 721282.
- Purpura, D. J.**, Litkowski<sup>p</sup>, E. C., Duncan, R. J., & Logan, J. A. R. (2021). Response to Fuson, Clements, and Sarama commentary on Litkowski, Duncan, Logan, and Purpura (2020). *AERA Open*, 7, 1-3.
- Hornburg<sup>p</sup>, C. B., Borriello<sup>p</sup>, G.A., Kung<sup>p</sup>, M., Lin<sup>p</sup>, J., Litkowski<sup>p</sup>, E., Cosso<sup>g</sup>, J., Ellis<sup>p</sup>, A., King<sup>g</sup>, Y., Zippert<sup>p</sup>, E., Cabrera, N., Davis-Kean, P., Eason, S. H., Hart, S. A., Iruka, I., LeFevre, J.-A., Simms, V., Susperreguy, M. I., Cahoon, A., Chan, W. W. L., Cheung, S. K., Coppola, M., De Smedt, B., Elliot, L., Estévez-Pérez, N., Gallagher-Mitchell, T., Gardner-Neblett, N., Gilmore, C., Leyva, D., Maloney, E. A., Manolitsis, G., Melzi, G., Mutaf-Yıldız, B., Nelson, G., Niklas, F., Pan, Y., Ramani, G. B., Skwarchuk, S.-L., Sonnenschein, S., & **Purpura, D. J.** (2021). Next directions in measurement of the home mathematics environment: An international and interdisciplinary perspective. *Journal of Numerical Cognition*, 7, 195-220.

- Cahoon, A. Cassidy, T., **Purpura, D. J.**, & Simms, V. (2021). Developing a rigorous measure of the preschool home maths environment. *Journal of Numerical Cognition*, 7, 172-194.
- Napoli<sup>g</sup>, A. R., Korucu<sup>g</sup>, I., Lin<sup>p</sup>, J., Schmitt, S. A., & **Purpura, D. J.** (2021). Characteristics related to parent child literacy and numeracy practices in preschool. *Frontiers in Education*, 6, 54.
- Purpura, D. J.**, Schmitt, S. A., Napoli<sup>g</sup>, A. R., Dobbs-Oates, J., King<sup>g</sup>, Y. A., Hornburg<sup>p</sup>, C. B., Westerberg<sup>g</sup>, L., Borriello<sup>p</sup>, G., Bryant<sup>g</sup>, L., Anaya<sup>g</sup>, L., Kung<sup>p</sup>, M., Litkowski<sup>p</sup>, E. C., Lin<sup>p</sup>, J., & Rolan<sup>g</sup>, E. (2021). Engaging parents and children in picture books: A family-implemented mathematical language intervention. *Journal of Educational Psychology*, 113, 1338-1353.
- Lin<sup>p</sup>, J., Napoli<sup>g</sup>, A. R., Schmitt, S. A., & **Purpura, D. J.** (2021). The relation between parent ratings and direct assessments of preschoolers' numeracy skills. *Learning and Instruction*, 71, 101375.
- Westerberg<sup>g</sup>, L., Litkowski<sup>p</sup>, E. C., Finders<sup>p</sup>, J. K., Gerde, H. K., Duncan, R. J., Schmitt, S. A., & **Purpura, D. J.** (2021). Concurrent predictors of science core knowledge in preschool. *Cognitive Development*, 100981.
- King<sup>g</sup>, Y. A., & **Purpura, D. J.** (2021). The home numeracy environment and early math skills: Math language as a mediator. *Early Childhood Research Quarterly*, 54, 252-259.
- Litkowski<sup>p</sup>, E., Duncan, R., Logan, J., & **Purpura, D. J.** (2020). Alignment between children's numeracy performance, the Kindergarten Common Core State Standards for math, and state level early learning standards. *AERA Open*, 6, 2332858420968546.
- Kung<sup>p</sup>, M., Stolz<sup>u</sup>, K., Lin<sup>p</sup>, J., Foster, M., Schmitt, S. A., & **Purpura, D. J.** (2020). The home numeracy environment and measurement of numeracy performance in English and Spanish in Dual Language Learners. *Topics in Early Childhood Special Education*, 0271121420942588.
- Purpura, D. J.**, King<sup>g</sup>, Y. A., Rolan<sup>g</sup>, E., Hornburg<sup>p</sup>, C. B., Schmitt, S. A., Hart, S. A., & Ganley, C. M. (2020). Examining the factor structure of the home mathematics environment to delineate its role in predicting preschool numeracy, mathematical language, and spatial skills. *Frontiers in Psychology*, 11, 1925.
- King<sup>g</sup>, Y. A., Duncan, R. J., Posada, G., & **Purpura, D. J.** (2020). Construct-specific and timing-specific aspects of the home environment for children's school readiness. *Frontiers in Psychology*, 11, 1959.
- Litkowski<sup>p</sup>, E. C., Duncan, R., Logan, J., & **Purpura, D. J.** (2020). When do preschoolers learn specific mathematics skills? Mapping the development of early numeracy knowledge. *Journal of Experimental Child Psychology*, 195, 104846.
- Litkowski<sup>p</sup>, E. C., Finders<sup>p</sup>, J. K., Borriello<sup>p</sup>, G., **Purpura, D. J.**, & Schmitt, S. A. (2020). Patterns of heterogeneity in kindergarten children's executive function: Profile associations with third grade achievement. *Learning and Individual Differences*, 80, 101846.
- Duncan, R., King, Y. A., Finders, J. K., Elicker, J., Schmitt, S. A., & **Purpura, D. J.** (2020). Prekindergarten classroom language environments and children's vocabulary skills. *Journal of Experimental Child Psychology*, 194, 104829.

- Zhang, C., Bingham, G. E., Xiao, Z., Schmitt, S. A., **Purpura, D. J.**, & Yang, F. (2020) Untangling Chinese preschoolers' early writing development: Associations among early reading, executive functioning, and early writing skills. *Reading and Writing*, 33, 1263-1294.
- Korucu<sup>§</sup>, I., Litkowski<sup>p</sup>, E., **Purpura, D. J.**, & Schmitt, S. A. (2020). Parental executive function as a predictor of parenting practices and children's executive function. *Infant and Child Development*, 29, e2152.
- Purpura, D. J.** (2019). Language clearly matters; methods matter too. *Child Development*, 90, 1839-1846.
- Lin<sup>p</sup>, J., Litkowski<sup>p</sup>, E., Schmerold, K., Elicker, J., Schmitt, S. A., & **Purpura, D. J.** (2019). Parent-educator communication linked to more frequent home learning activities for preschoolers. *Child & Youth Care Forum*, 48, 757-772.
- McClelland, M. M., Tominey, S. L., Schmitt, S. A., Hatfield, B., **Purpura, D. J.**, & Gonzales, C. (2019). Red Light, Purple Light! Results of an intervention to promote school readiness for children from low-income backgrounds. *Frontiers in Psychology*. 10, 2365.
- Kung<sup>p</sup>, M., Schmitt, S. A., Zhang, C., Whiteman, S. D., Yang, F., & **Purpura, D. J.** (2019). The role of mathematical language in mathematics development in China and the US. *International Journal of Educational Research*, 95, 131-142.
- Purpura, D. J.**, Litkowski<sup>p</sup>, E. C., & Knopik, V. (2019). Mathematics and reading develop together in young children: Practical and policy considerations. *Policy Insights from the Brain and Behavioral Sciences*, 6, 12-20.
- Schmitt, S. A., Korucu, I., **Purpura, D. J.**, Whiteman, S., Zhang, C., & Yang, F. (2019). Exploring cross-cultural variations in the development of executive function for preschoolers from low and high socioeconomic families. *International Journal of Behavioral Development*, 43, 212-220.
- Schmitt, S. A., **Purpura, D. J.**, & Elicker J. E. (2019). Predictive links between vocabulary, mathematical language, and executive functioning in preschoolers. *Journal of Experimental Child Psychology*, 180, 55-68.
- Korucu<sup>§</sup>, I., Rolan<sup>§</sup>, E., Napoli<sup>§</sup>, A. R., **Purpura, D. J.**, & Schmitt, S. A. (2019). Development of the Home Executive Function Environment (HEFE) scale: Assessing its relation to preschoolers' executive function. *Early Childhood Research Quarterly*, 47, 9-19.
- Purpura, D. J.**, & Schmitt, S. A. (2019). Cross-domain development of early academic and cognitive skills. *Early Childhood Research Quarterly*, 46, 1-4.
- Schmitt, S. A., Korucu, I., Jones, B. L., Snyder, F., Evich, C. D., & **Purpura, D. J.** (2019). Self-regulation as a correlate of weight status in preschool children. *Early Child Development and Care*, 189, 68-78.
- Hornburg<sup>p</sup>, C., Schmitt, S. A., & **Purpura, D. J.** (2018). Relations between preschoolers' mathematical language understanding and specific numeracy skills. *Journal of Experimental Child Psychology*, 176, 84-100.

- Schmitt, S. A., Korucu, I., Napoli, A. R., Bryant, L. M., & **Purpura, D. J.** (2018). Using block play to enhance preschool children's mathematics and executive functioning: A randomized controlled trial. *Early Childhood Research Quarterly, 44*, 181-191.
- Rolan<sup>§</sup>, E. P., Schmitt, S. A., **Purpura, D. J.**, & Nichols, D. L. (2018). Sibling presence, executive function, and the role of parenting. *Infant and Child Development, e2091*.
- Purpura, D. J.**, & Simms, V. (2018). Approximate Number System development in preschool: What factors predict change? *Cognitive Development, 45*, 31-39.
- Napoli<sup>§</sup>, A. R., & **Purpura, D. J.** (2018). The home literacy and numeracy environment in preschool: Cross-domain relations of parent-child practices and child outcomes. *Journal of Experimental Child Psychology, 166*, 581-603.
- Purpura, D. J.**, Day<sup>§</sup>, E., Napoli<sup>§</sup>, A. R., & Hart, S. A. (2017). Identifying domain-general and domain-specific predictors of low mathematics performance: A classification and regression tree analysis. *Journal of Numerical Cognition, 3*, 365-399.
- Purpura, D. J.**, Logan, J. A. R., Hassinger-Das, B., & Napoli<sup>§</sup>, A. R. (2017). Why do early mathematics skills predict later reading? The role of mathematical language. *Developmental Psychology, 53*, 1633-1642.
- Schmitt, S. A., Geldhof, G. J., **Purpura, D. J.**, Duncan, R., & McClelland, M. M. (2017). Examining the relations between executive function, math, and literacy during the transition to kindergarten: A multi-method approach. *Journal of Educational Psychology, 109*, 1120-1140.
- Thompson<sup>u</sup>, R. J., Napoli<sup>§</sup>, A. R., & **Purpura, D. J.** (2017). Age-Related Differences in the Relation between the Home Numeracy Environment and Numeracy Skills. *Infant and Child Development, e2019*.
- Purpura, D. J.**, Schmitt, S. A., & Ganley, C. M. (2017). Foundations of mathematics and literacy: The role of executive functioning components. *Journal of Experimental Child Psychology, 153*, 15-34.
- Purpura, D. J.**, Napoli<sup>§</sup>, A. R., Wehrspann<sup>§</sup>, E. A., & Gold<sup>§</sup>, Z. S. (2017). Causal connections between mathematical language and mathematical knowledge: A dialogic reading intervention. *Journal of Research on Educational Effectiveness, 10*, 116-137.
- Hart, S. A., Ganley, C. M., & **Purpura, D. J.** (2016). Understanding the home math environment and its role in predicting parent report of children's math skills. *PLoS One, 11*, e0168227.
- Purpura, D. J.**, Baroody, A. J., Eiland, M. D., & Reid, E. E. (2016). Fostering first-graders' reasoning strategies with basic sums: The value of guided training. *Elementary School Journal, 117*, 72-100.
- Sims, D. M., **Purpura, D. J.**, & Lonigan, C. J. (2016). The relation between inattentive and hyperactive/impulsive behaviors and early mathematics skills. *Journal of Attention Disorders, 20*, 704-714.
- Baroody, A. J., **Purpura, D. J.**, Eiland, M. D., Reid, E. E., & Paliwal, V. (2016). Fostering primary grade pupils' reasoning strategies with basic subtraction and relatively difficult addition combinations



- via computer-assisted instruction. *Journal of Educational Psychology*, 108, 576-591.
- Purpura, D. J., & Reid, E. E.** (2016). Mathematics and language: Individual and group differences in mathematical language skills in young children. *Early Childhood Research Quarterly*, 26, 259-268.
- Purpura, D. J., & Logan, J. A. R.** (2015). The non-linear relations between the approximate number system and mathematical language to symbolic mathematics. *Developmental Psychology*, 51, 1717-1724.
- Reid, E. E., Baroody, A. J., & **Purpura, D. J.** (2015). Assessing young children's number magnitude representation: A comparison between novel and conventional tasks. *Journal of Cognition and Development*, 16, 759-779.
- Purpura D. J. & Napoli<sup>g</sup>, A. R.** (2015). Early numeracy and literacy: Untangling the relation between specific components. *Mathematical Thinking and Learning*, 17, 197-218.
- Purpura, D. J., Reid, E. E., Eiland, M. D., & Baroody, A. J.** (2015). Using a brief preschool early numeracy skills screener to identify young children with mathematics difficulties. *School Psychology Review*, 44, 41-59.
- Purpura, D. J., & Lonigan, C. J.** (2015). Early numeracy assessment: The development of the preschool early numeracy scales. *Early Education and Development*, 26, 286-313.
- Baroody, A. J., **Purpura, D. J., Eiland, M. D., & Reid, E. E.** (2015). The impact of highly and minimally guided discovery instruction on promoting the learning of reasoning strategies for basic add-1 and doubles combinations. *Early Childhood Research Quarterly*, 30, 93-105.
- Purpura, D. J., & Ganley, C.** (2014). Working memory and language: Skill-specific or domain-general relations to mathematics? *Journal of Experimental Child Psychology*, 122, 104-121.
- Baroody, A. J., **Purpura, D. J., Eiland, M. D., & Reid, E. E.** (2014). Fostering first-graders' fluency with basic subtraction and larger addition combinations via computer-assisted instruction. *Cognition and Instruction*, 32, 159-197.
- Purpura, D. J., Baroody, A. J., & Lonigan, C. J.** (2013). The transition from informal to formal mathematical knowledge: Mediation by numeral knowledge. *Journal of Educational Psychology*, 105, 453-464.
- Baroody, A. J., Eiland, M., **Purpura, D. J., & Reid, E. E.** (2013). Can computer-assisted discovery learning foster first graders' fluency with basic addition combinations? *American Educational Research Journal*, 50, 533-573.
- Lonigan, C. J., **Purpura, D. J., Wilson, S. B., Walker, P. M., & Clancy-Menchetti, J.** (2013). Evaluating the components of an emergent literacy intervention for children at-risk of reading difficulties. *Journal of Experimental Child Psychology*, 114, 111-130.
- Purpura, D. J., & Lonigan, C. J.** (2013). Informal numeracy skills: The structure and relations among numbering, relations, and arithmetic operations in preschool. *American Educational Research Journal*, 50, 178-209.

- Li, X., Sun, Y., Baroody, A.J., & **Purpura, D. J.** (2013). The effect of language on Chinese and American 2- and 3-year olds' small number identification. *European Journal of Psychology of Education*, 28, 1525-1542.
- Baroody, A. J., Eiland, M. D., **Purpura, D. J.**, & Reid, E. E. (2012). Fostering at-risk kindergarten children's number sense. *Cognition and Instruction*, 30, 435-470.
- Purpura, D. J.**, Hume, L., Sims, D., & Lonigan, C. J. (2011). Early literacy and early numeracy: The value of including early literacy skills in the prediction of numeracy development. *Journal of Experimental Child Psychology*, 110, 647-658.
- Purpura, D. J.**, Wilson, S. B., & Lonigan, C. J. (2010). Attention-deficit/hyperactivity disorder symptoms in preschool children: Examining psychometric properties using item response theory. *Psychological Assessment*, 22, 546-558.
- Piasta, S. B., **Purpura, D. J.**, & Wagner, R. (2010). Fostering alphabet knowledge development: A comparison of two instructional approaches. *Reading and Writing*, 23, 607-626.
- Purpura, D. J.**, & Lonigan C. J. (2009). Conner's Teacher Rating Scale for preschool children: A revised, brief, age-specific measure. *Journal of Clinical Child and Adolescent Psychology*, 38, 263-272.
- Lonigan, C. J., Anthony, J. L., Phillips, B. M., **Purpura, D. J.**, Wilson, S. B., & McQueen, J. D. (2009). The nature of preschool phonological processing abilities and their relations to vocabulary, general cognitive abilities, and print knowledge. *Journal of Educational Psychology*, 101, 345-358.
- Desmond, S. A., Soper, S. E., **Purpura, D. J.**, & Smith, E. (2008). Religiosity, moral beliefs, and delinquency: Does the effect of religiosity on delinquency depend on moral beliefs? *Sociological Spectrum*, 29, 51-71.
- Book Chapters, Bibliographies, and Monographs
- Ellis<sup>p</sup>, A., Westerberg<sup>g</sup>, L., King<sup>g</sup>, Y., Eason, S. H., O'Rear<sup>p</sup>, C. D., & **Purpura, D. J.** (*in press*) To home literacy and beyond: Discussing subdomains of the home learning environment. In A. L. Betts & K.P. Thai (Eds.) *Innovative Approaches to Early Childhood Development and School Readiness*. IGI Global.
- O'Rear<sup>p</sup>, C. D., Zippert<sup>p</sup>, E. L., Ehrman<sup>g</sup>, P., Ellis<sup>p</sup>, A., **Purpura, D. J.** (*in press*). Research-Based Design and Use of Picture Books to Promote Children's Early Mathematical Learning: A Conceptual Model. In A. L. Betts & K.P. Thai (Eds.) *Innovative Approaches to Early Childhood Development and School Readiness*. IGI Global.
- Purpura, D. J.**, Napoli<sup>g</sup>, A. R., & King<sup>g</sup>, Y. (2019). Development of mathematical language in preschool and its role in learning numeracy skills. In D. Geary, D. Berch, and K. Mann Koepke (Eds.), *Cognitive Foundations for Improving Mathematical Learning, Volume 5* (175-193). London: Elsevier.
- Purpura, D. J.**, Gonzalez, J., Anaya<sup>g</sup>, L.Y., Usero-Gonzalez, F., & Kung<sup>p</sup>, M. (2018). The importance of mathematical language in early numeracy development: Implications for dual language learners.

In D. Luft Baker, D. Basaraba, & C. Richards-Tutor (Eds.), *Second Language Acquisition: Methods, Perspectives and Challenges* (pp. 153-170). New York: Nova Science Publishers.

Baroody, A. J., & **Purpura, D. J.** (2017). Early number and operations: Whole numbers. In J. Cai (Ed.), *First Compendium for Research in Mathematics Education*. Reston, VA: National Council of Teachers of Mathematics.

Baroody, A. J., Reid, E. E., & **Purpura, D. J.** (2013). An example of a hypothetical learning progression: The successor principle and emergence of informal mathematical induction. In R. L. Mayes & L. L. Hatfield (Eds.), *WISDOMe Monograph 3 (Quantitative Reasoning in Mathematics and Science Education: Papers from an International STEM Research Symposium)*. Published online at <http://www.uwyo.edu/wisdome/publications/monographs/monograph%203.html>.

Baroody, A. J., **Purpura, D. J.**, Reid, E. E., Paliwal, V., & Bajwa, N. P. (2013). Early childhood mathematics education. L. Meyer (Ed.), *Oxford Bibliographies Online*. New York: Oxford University Press.

Baroody, A.J., **Purpura, D.J.**, & Reid, E.E. (2012). Comments on learning and teaching early and elementary mathematics. In J.S. Carlson, J.R. Levin (Eds.), *Instructional Strategies For Improving Students' Learning: Focus On Early Reading and Mathematics* (pp. 163-175). Charlotte, NC US: IAP Information Age Publishing.

### **State Reports**

Schmitt, S. A., Litkowski, E., Duncan, R. J., Elicker, J., Purcell, M., & **Purpura, D. J.** (2019). Indiana's Birth to Age Five Mixed Delivery System Needs Assessment. Office of Early Childhood and Out of School Learning.

Schmitt, S. A., Duncan, R. J., **Purpura, D. J.**, Elicker, J., Finders, J., Budrevich, A., & Bryant, L. (June, 2019). On My Way Pre-K Expansion Program Evaluation Progress Report. Office of Early Childhood and Out of School Learning.

Schmitt, S. A., Elicker, J., Duncan, R. J., **Purpura, D. J.**, Schmerold, K., Budrevich, A., & Bryant, L. (June, 2018). Indiana Early Learning Pilot Program Evaluation On My Way Pre-K Preliminary Progress Report. Office of Early Childhood and Out of School Learning.

Elicker, J., Schmitt, S. A., **Purpura, D. J.**, Schmerold, K., Budrevich, A., & Bryant, L. (June, 2017). Indiana Early Learning Pilot Program Evaluation On My Way Pre-K Preliminary Progress Report. Office of Early Childhood and Out of School Learning.

### **Published Data**

Ellis<sup>p</sup>, A., King<sup>s</sup>, Y. A., Westerberg<sup>s</sup>, L., O'Rear<sup>p</sup>, C. D., Hornburg<sup>p</sup>, C. B., McElveen<sup>p</sup>, T. L., Zippert<sup>p</sup>, E. L., Cosso<sup>s</sup>, J., Grimm<sup>p</sup>, S. B., Ehrman<sup>s</sup>, P. C., & **Purpura, D. J.** (2022). *Early Home Learning Environment*. LDbase. <https://doi.org/10.33009/ldbase.1644347317.4c34>

### **COPYRIGHTED WORKS**

#### **Assessment Measures**

Purpura, D. J. (2020). *The Preschool Early Numeracy Screener. PRO-ED*, Austin, TX. Copyright number: 1-1723130765.

#### **Children's Picture Books**

*The Little Elephants Big Adventures* series – This is a series of six books developed through Heising-

Simons and NSF funded projects on early math language. The books were developed by Dr. Purpura's research team in collaboration with a professional author (Angela Isaacs) and illustrator (Matt Dye).

Isaacs, A., & Dye, M. (Illustrator). (2017). *The Little Elephants Big Adventures: Too Many Pillows*. Published by David J. Purpura.

Isaacs, A., & Dye, M. (Illustrator). (2017). *The Little Elephants Big Adventures: Just Enough Eggs*. Published by David J. Purpura.

Isaacs, A., & Dye, M. (Illustrator). (2017). *The Little Elephants Big Adventures: Picnic with Some Peanuts*. Published by David J. Purpura.

Isaacs, A., & Dye, M. (Illustrator). (2019). *The Little Elephants Big Adventures: Hide and Seek Inside the Garden*. Published by David J. Purpura.

Isaacs, A., & Dye, M. (Illustrator). (2019). *The Little Elephants Big Adventures: Picking up Pieces*. Published by David J. Purpura.

Isaacs, A., & Dye, M. (Illustrator). (2019). *The Little Elephants Big Adventures: The Curved Kite and the Windy Day*. Published by David J. Purpura.

Isaacs, A., & Dye, M. (Illustrator). (2021). *The Little Elephants Big Adventures: So Many Shooting Stars*.

Isaacs, A., & Dye, M. (Illustrator). (2021). *The Little Elephants Big Adventures: A Couple of Cool Ideas*.

Isaacs, A., & Dye, M. (Illustrator). (2021). *The Little Elephants Big Adventures: A Different Winter Den*.

*The Pattern Pals* series – This is a series of three books focused on early mathematical patterning skills done in collaboration with students in the Honors College and a professional illustrator (Kristina Tartara).

Science and Stories Collaborative, & Tartara, K. (Illustrator). (2019). *The Pattern Pals: Birthday Beeps and Boops*. Published by David J. Purpura.

Science and Stories Collaborative, & Tartara, K. (Illustrator). (2019). *The Pattern Pals: Sleepover Similarities*. Published by David J. Purpura.

Science and Stories Collaborative, & Tartara, K. (Illustrator). (2019). *The Pattern Pals: Levels in the Library*. Published by David J. Purpura.

### CONFERENCE PRESENTATIONS

Hojnoski, R., Missall, J., Albano, A., & **Purpura, D. J.** (2022, February). *Developing LLAMA (Links to Learning via Adaptive Math Assessment): Year 1 of Research and Development*. Presented at the Conference on Research Innovations in Early Intervention, San Diego, CA.

Albano, A., **Purpura, D. J.**, Rios, J., & Wackerle-Hollman, A. (2022, January). Panel discussion on *Considering Cultural, Racial, and Linguistic Bias in Early Childhood Measurement Development*. Virtual Institute for Education Sciences Principal Investigator meeting.

Paes, T.M., Duncan, R. J., **Purpura, D. J.**, & Schmitt, S.A. (2021, July). The association between preschool teacher-child relationship and children's kindergarten outcomes. Poster presented at CogSci 2021 (virtual).

Cosso<sup>g</sup>, J., **Purpura, D. J.**, Maeda, Y., & Bofferding, L. (2021, April). *The Home Mathematics Environment of Dual-Language Learner Children and Their Early Mathematics Skills*. Paper presented at the American Educational Research Association (AERA) virtual annual meeting.

Anderson, K., Duncan, R., Finders, J., **Purpura, D. J.**, & Schmitt, S. A. (2021, April). *The factor structure of cognitive school readiness skills: Conceptual versus statistical distinctions*. Poster presented at the Virtual Biennial Meeting of the Society for Research in Child Development.

Bryant, L., Duncan, R., **Purpura, D. J.**, Elicker, J., & Schmitt, S. A. (2021, April). *Structured Sports Participation in Preschool Predicts Later Math and Literacy*. In S. Schmitt (Chair). The role of varying physical activity types and contexts for educational and behavioral outcomes.

Symposium conducted at the Virtual Biennial Meeting of the Society for Research in Child Development.

Cosso<sup>g</sup>, J., Finders<sup>p</sup>, J. K., Duncan, R. J., Schmitt, S. A., & **Purpura, D. J.** (2021, April). *The Home Numeracy Environment and Children's Early Math Skills: The Moderating Role of Parents' Math Anxiety*. In G. Yeomans-Maldonado (Chair), Home Practices and Beyond: Looking at Media, Numeracy, Literacy, and Authentic Practices in Diverse Populations. *Symposium conducted at the Virtual Biennial Meeting of the Society for Research in Child Development*.

Duncan, R. J., Anderson, K., King, Y., Finders, J., Schmitt, S. A., & **Purpura, D. J.** (2021, April). *Preschool language environments: Variation throughout the day and year, and between- and within-classrooms*. In D. Purpura (Chair), Classroom language environments in preschool and kindergarten: Variability across activities, time, and content. Symposium conducted at the Virtual Biennial Meeting of the Society for Research in Child Development.

Finders, J., Korucu, I., Bryant, L., Duncan, R., **Purpura, D. J.**, & Schmitt, S. A. (2021, April). *Examining Additive and Synergistic Relations Between Preschool Self-Regulation and Executive Function Skills: Predictions to Kindergarten Academic Outcomes*. Poster presented at the Virtual Biennial Meeting of the Society for Research in Child Development.

Ireland, M., Bryant, L., Finders, J., Duncan, R., **Purpura, D. J.**, & Schmitt, S. A. (2021, April). *Unpacking Associations Between Food Insecurity, Inhibitory Control, and Body Mass Index in Preschoolers*. Poster presented at the Virtual Biennial Meeting of the Society for Research in Child Development.

King<sup>g</sup>, Y. A., Zippert<sup>p</sup>, E. L., Lin<sup>p</sup>, J., & **Purpura, D. J.** (2021, April). *Relations between home math activities and parents' accuracy on reports of preschoolers' math language knowledge and numeracy skills*. In Y. King (Chair), Relations between parent and teacher factors and children's school readiness skills. Symposium conducted at the Virtual Biennial Meeting of the Society for Research in Child Development.

Korucu, I., Paes, T., Duncan, R., **Purpura, D. J.**, & Schmitt, S. A. (2021, April). *The role of Peers' EF and Classroom Quality in Preschoolers' EF and Academic Skills*. In I. Korucu (Chair), Executive Function in the Preschool Classroom: Understanding the Peers' Influence and Group-based EF Assessments. Symposium conducted at the Virtual Biennial Meeting of the Society for Research in Child Development.

Medrano<sup>u</sup>, L., Zippert<sup>p</sup>, E., Schmitt, S. A., & **Purpura, D. J.** (2021, April). *Relations between parent and child math talk with math performance for dual language learners*. Poster presented at the Virtual Biennial Meeting of the Society for Research in Child Development.

Napoli<sup>g</sup>, A. R., Chen, K., & **Purpura, D. J.** (April, 2021). *Where are the Words? An Examination of Mathematical Language Words in Popular Children's Books*. In E. Lazaroff (Chair), STEM Storybooks as a Platform for STEM Learning. Symposium conducted at the Virtual Biennial Meeting of the Society for Research in Child Development.

**Purpura, D. J.**, Schmitt, S. A., Napoli<sup>g</sup>, A. R., Dobbs-Oates, J., King<sup>g</sup>, Y., Anaya<sup>g</sup>, L., Kung<sup>p</sup>, M., Hornburg<sup>p</sup>, C. B., Westerberg<sup>g</sup>, L., Cosso<sup>g</sup>, J., Borriello<sup>p</sup>, G., Bryant<sup>g</sup>, L., Litkowski<sup>p</sup>, E., Lin<sup>p</sup>, J., & Rolan<sup>g</sup>, E. (2021, April). *A Parent-Implemented Mathematical Language Picture Book Intervention with Latinx Dual Language Learners*. In D. Leyva (Chair), Using RCTs to Evaluate Effectiveness of Strengths-Based, Parent-Focused Interventions Promoting Positive Outcomes in



Latino Children. Symposium conducted at the Virtual Biennial Meeting of the Society for Research in Child Development.

Westerberg<sup>g</sup>, L., Zippert<sup>p</sup>, E., Ellis<sup>p</sup>, A., O'Rear<sup>p</sup>, C., Cosso<sup>g</sup>, J., King<sup>g</sup>, Y., & **Purpura, D. J.** (April 2021). Talk Spatial to Me: Developing a Broad Measure of Receptive Spatial Vocabulary. *Society for Research in Child Development*. Poster presented at the Virtual Biennial Meeting of the Society for Research in Child Development.

Missall, K., Hojnoski, R., Albano, A., & **Purpura, D. J.** (2021, February). Adding to IGDIs: Developing and early math measure for PreK. Poster presented at the National Association of School Psychologists annual meeting, Virtual Conference.

Lin<sup>p</sup>, J., Litkowski<sup>p</sup>, E., Schmitt, S. A., **Purpura, D. J.** (2020, November). *Parent-educator communication regarding both mathematics and literacy linked to more frequent numeracy and literacy activities in preschoolers' homes: Domain-specific and cross-domain associations found*. Poster presented at the biennial meeting of the National Research Conference on Early Childhood (NRCEC), Arlington, VA.

Scalise, N. & **Purpura, D. J.** (2020, October). *Mediators of the relation between ANS and math achievement*. Poster presented virtually at the Mathematical Cognition and Learning Society Meeting, Dublin, Ireland.

Duncan, R. J., King, Y., Schmitt, S. A., & **Purpura, D. J.** (2019, October). Prekindergarten language environments and children's language abilities. Paper presented at the Society for the Study of Human Development. Portland, OR.

Finders, J. K., Budrevich, A., Duncan R. J., **Purpura, D.**, Elicker, J., & Schmitt, S. (2019, October). *A multi-method analysis of variability in classroom quality and links to early literacy outcomes*. In J. K. Finders (Chair), *New Insights on Classroom Quality and Implications for Children's School Readiness*. Paper presented at the meeting of the Society for the Study of Human Development, Portland, OR.

Kung<sup>p</sup>, M., Zhang, C., Schmitt, S. A., Yang., F., & **Purpura, D. J.** (2019, July). *Relations between numeracy and mathematical language for preschoolers in China*. Poster presented at the annual meeting of the Society for the Scientific Study of Reading. Toronto, Canada.

King<sup>g</sup>, Y. A., Hornburg<sup>p</sup>, C. B., & **Purpura, D. J.** (2019, June). *Perceptions of the magnitude of mathematical language terms in preschoolers and adults*. Poster session presented at the Mathematical Cognition and Learning Society Conference, Ottawa, ON.

**Purpura, D. J.**, Borriello<sup>p</sup>, G., & Schmitt, S. A. (2019, June). Item-level variability in the assessment of the home numeracy environment: A graded response model analysis. In V. Simms (chair) *A tricky mathematical problem: Developing rigorous and valid measurements of the preschool home numeracy environment*. Symposium conducted at the annual meeting of the Mathematical Learning and Cognition Society. Ottawa, Canada.

**Purpura, D. J.**, Hornburg<sup>p</sup>, C. B., King<sup>g</sup>, Y., Westerberg<sup>g</sup>, L., & Schmitt, S. A. (2019, June). Longitudinal prediction of individual early numeracy skills: The relation of mathematical language and early literacy. In V. Simms (chair) *Language: A tool for learning arithmetic*. Symposium conducted at the annual meeting of the Mathematical Learning and Cognition Society. Ottawa, Canada.

- Becker<sup>u</sup>, M., Litkowski<sup>p</sup>, E., Duncan, R., Schmitt, S. A., Elicker, J., & **Purpura, D.** (2019, March). *Investigating the relation between parents' math anxiety and preschool children's math performance.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Borriello<sup>p</sup>, G. A., Litkowski<sup>p</sup>, E. L., Elicker, J., Schmitt, S. A., & **Purpura, D. J.** (2019, March). *Examining longitudinal effects of the home numeracy environment and child executive function on early numeracy skills.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Bryant, L., Duncan, R., **Purpura, D. J.**, Elicker, J., & Schmitt, S. A. (2019, March). *Structured sports participation, executive function, and early math skills in preschoolers.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Budrevich, A., Schmerold, K. L., Elicker, J., **Purpura, D. J.**, & Schmitt, S. A. (2019, March). *Examining classroom quality as a moderator between pre-kindergarten participation and school readiness.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Hornburg<sup>p</sup>, C. B., Schmitt, S. A., & **Purpura, D. J.** (2019, March). *Relations between preschoolers' mathematical language understanding and specific numeracy skills.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- King<sup>g</sup>, Y., & **Purpura, D. J.** (2019, March). The home numeracy environments' association with early numeracy and math language skills. In E. Zippert and N. Scalise (chairs) *A broader look at parents' early informal math support.* Symposium conducted at the biennial meeting of the Society for Research in Child Development. Baltimore, Maryland.
- Kung<sup>p</sup>, M., Schmitt, S. A., Zhang, C., Yang, F., Whiteman, S. D., & **Purpura, D. J.** (2019, March). *The role of mathematical language in preschool mathematics development in China and the US.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Korucu, I., Litkowski, E., **Purpura, D. J.**, & Schmitt, S. A. (2019, March). Maternal executive function as a predictor of parenting practices and children's executive function. In N. Cabrera (Chair), *Cognition and parenting in low income families.* Symposium paper presented at the 2019 Biennial Meeting of Society for Research in Child Development, Baltimore, MD.
- Lin<sup>p</sup>, J., Napoli<sup>g</sup>, A. R., Schmitt, S. A., & **Purpura, D. J.** (2019, March). *Links between caregivers' enjoyment of math and reading and preschoolers' home learning environments.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Lin<sup>p</sup>, J., Napoli<sup>g</sup>, A. R., Schmitt, S., & **Purpura, D. J.** (2019, March). *Parent ratings of preschoolers' numeracy skills predictive of directly assessed overall numeracy ability.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Litkowski<sup>p</sup>, E., Duncan, R., Logan, J. A. R., & **Purpura, D. J.** (2019, March). *When do preschoolers learn specific mathematics skills? Mapping the development of children's early numeracy knowledge.* Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.

- Litkowski<sup>p</sup>, E., Lin<sup>p</sup>, J., Korucu, I., **Purpura, D. J.**, & Schmitt, S. A. (March, 2019). *Examining the relation between parents' goals and values and children's executive function*. Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- McClelland, M., Tominey, S., Schmitt, S., Hatfield, B. E., **Purpura, D., J.**, & Tracy, A. (2019, March). Effects of the Red Light, Purple Light self-regulation intervention for promoting school readiness. In M. von Salisch (chair) *Teacher-led interventions to promote school readiness*. Symposium conducted at the biennial meeting of the Society for Research in Child Development. Baltimore, Maryland.
- McGraw, A. L., Ganley, C. M., Powell, S. R., **Purpura, D. J.**, Schoen, R. C., & Schatschneider, C. (2019, March). *An investigation of mathematical language and its relation with mathematics and reading*. Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Napoli<sup>g</sup>, A., & **Purpura, D. J.** (2019, March). Does parent-child math engagement add up? A home numeracy intervention for parents of preschool children. In D. Purpura (chair), *Moving the needle on the home numeracy environment: Low-cost, feasible interventions to enhance child outcomes*. Symposium conducted at the biennial meeting of the Society for Research in Child Development. Baltimore, Maryland.
- Purpura, D. J.**, Hornburg<sup>p</sup>, C. B., & Schmitt, S. A. (2019, March). The structure of mathematical language skills during preschool and its relation to numeracy skills. In M. Hurst (chair) *Relational language and math: Variation across types of language and math activities*. Symposium conducted at the biennial meeting of the Society for Research in Child Development. Baltimore, Maryland.
- Purpura, D. J.**, Kung<sup>p</sup>, M., Schmitt, S. A., Dobbs-Oates, J., King<sup>g</sup>, Y., Napoli<sup>g</sup>, A. R., Rolan<sup>g</sup>, E., & Becker<sup>u</sup>, M. (2019, March). Enhancing spontaneous interactive questions by parents and children during mathematics storybook reading. In S. Eason (chair) *Supports for facilitating parent-child math engagement during home activities*. Symposium conducted at the biennial meeting of the Society for Research in Child Development. Baltimore, Maryland.
- Schmerold, K. L., Budrevich, A., Elicker, J., **Purpura, D. J.**, & Schmitt, S. A. (2019, March). *Early skills predicting later skills in preschool: Moderating effects of chronic absenteeism*. Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore Maryland.
- Purpura, D. J.**, Schmitt, S. A., Dobbs-Oates, J., & Kung<sup>p</sup>, M. (2019, March). Cross-language knowledge of preschool dual language learners' mathematics skills. In D. Miller-Cotto and C. Barbieri (chairs) *Cross-cultural factors relating to the mathematical cognition of diverse populations around the globe*. Symposium conducted at the biennial International Convention of Psychological Science. Paris, France.
- Napoli<sup>g</sup>, A. R., & **Purpura, D. J.** (2018, September). Parents as educators: Working with parents to encourage math engagement at home. In R. Merkley (chair), *What are the barriers to MBE? Insights from conversations and collaborations with early maths educators and researchers*. Symposium conducted at the 6<sup>th</sup> biennial conference of the International Mind, Brain, and Education Society. Los Angeles, California.
- Purpura, D. J.**, Schmitt, S. A., & Dobbs-Oates, J. (2018, June). Developing storybooks to support mathematical language: An empirically informed process. In H. Rosenberg (Chair), *Promoting*



*positive family math experiences: An exploration of three approaches to engaging families in preschool children's math learning through fun, everyday activities.* Symposium conducted at the biennial meeting of the National Research Conference on Early Childhood, Arlington, VA.

Budrevich, A., Schmerold, K., Schmitt, S. A., **Purpura, D. J.**, Bryant, L., & Elicker, J. (2018, June). *The effects of process quality and QRIS on children's school readiness skills.* Poster presented at the annual meeting of the National Research Conference on Early Childhood, Arlington, VA.

Lin<sup>P</sup>, J., Litkowski<sup>P</sup>, L., Schmerold, K., Elicker, J., Schmitt, S. A, **Purpura, & D. J.** (2018, June). *Teacher support in helping parents understand children's development associated with children's home learning environments.* Poster presented at the National Research Conference on Early Childhood, Arlington, VA.

Litkowski<sup>P</sup>, E., Napoli<sup>g</sup>, A., Lin<sup>P</sup>, J., Schmerold, K., Schmitt, S., Elicker, J., **Purpura, D. J.** (2018, June). *The stability of the home learning environment.* Poster presented at the annual meeting of the National Research Conference on Early Childhood, Arlington, VA.

Schmerold, K. L., Budrevich, A., Litkowski, E., Lin, J., Bryant, L., **Purpura, D. J.**, Schmitt, S., & Elicker, J. (2018, June). *Parent engagement in state-funded pilot pre-kindergarten program.* Poster presented at the annual meeting of the National Research Conference on Early Childhood, Arlington, VA.

**Purpura, D. J.**, Schmitt, S. A., & Napoli<sup>g</sup>, A. R. (2018, April). Delineating the linguistic pathway of early mathematics development: The role of mathematical language. In E. Zippert (Chair), *Parental support of math readiness skills: How to promote and optimize it.* Symposium conducted at the annual meeting of the American Educational Research Association, New York, NY.

**Purpura, D. J.**, Schmitt, S. A., Dobbs-Oates, J., Napoli<sup>g</sup>, A. R., Anaya<sup>g</sup>, L., Rolan<sup>g</sup>, E., & King<sup>g</sup>, Y. (2017, October). *Assessment of preschool numeracy and mathematical language skills: Cross-language (dis)agreement.* Presented at the Erikson Promising Math Conference, Chicago, IL.

**Purpura, D. J.**, Wehrspann<sup>g</sup>, E., Napoli<sup>g</sup>, A. R., & Hart, S. A. (2017, August). Risk classification for low mathematics performance in preschool: The role of mathematical language. In C. Gilmore and I. Xenidou-Dervou (Chairs), *Multiple influences of language on number skills and mathematics achievement.* Symposium conducted at the biennial meeting of European Association for Research on Learning and Instruction, Tampere, Finland.

Zhang, C., Bingham, G., Schmitt, S., **Purpura, D. J.**, & Yang, F. (2017, April). The interplay among Chinese young children's early literacy, math, and executive functioning. In C. Zhang (Chair), *Understanding young children's early development of academic and cognitive skills in China and the United States.* Symposium conducted at the biennial meeting of the Society for Research on Child Development, Austin, TX.

**Purpura, D. J.**, Schmitt, S. A., Zhang, C., Yang, F., & Napoli<sup>g</sup>, A. (2017, April). Language-related DIF on US and Chinese preschool children's number naming skills: A test of the number naming structure hypothesis. In C. Zhang (Chair), *Understanding young children's early development of academic and cognitive skills in China and the United States.* Symposium conducted at the biennial meeting of the Society for Research on Child Development, Austin, TX.

- Schmitt, S. A., Korucu, I., **Purpura, D. J.**, Zhang, C., & Yang, F. (2017, April). The cross-cultural variations in the development of executive function for preschoolers from low and high socioeconomic families. In C. Zhang (Chair), *Understanding young children's early development of academic and cognitive skills in China and the United States*. Symposium conducted at the biennial meeting of the Society for Research on Child Development, Austin, TX.
- McClelland, M., Schmitt, S. A., Geldhof, G. J., **Purpura, D. J.**, & Duncan, R. (2017, April). Examining the relations between executive function, math, & literacy during the transition to kindergarten: A multimethod approach. In M. O. Caughy (Chair), *Analyzing the bidirectional effects of self-regulation skill development and academic achievement*. Symposium conducted at the biennial meeting of the Society for Research on Child Development, Austin, TX.
- Napoli<sup>§</sup>, A. R., & **Purpura, D. J.** (2017, April). Parent's knowledge of their preschool child's numeracy skills. In B. Blevins-Knabe (Chair), *The home numeracy environment: Social and contextual influences on children's early mathematical development*. Symposium conducted at the biennial meeting of the Society for Research on Child Development, Austin, TX.
- Purpura, D. J.**, & Simms, V. (2017, April). *Predicting change in approximate number sense precision in pre-school children*. Paper presented at the biennial meeting of the Society for Research on Child Development, Austin, TX.
- Purpura, D. J.**, Thompson<sup>u</sup>, R., & Napoli<sup>§</sup>, A. R. (2017, April). *Age-related differences in the relation between the home numeracy environment and numeracy skills*. Paper presented at the biennial meeting of the Society for Research on Child Development, Austin, TX.
- Purpura, D. J.**, Hollich, G., Schmitt, S. A., & Napoli<sup>§</sup>, A. R. (February, 2017). The relation of vocabulary, grammatical awareness, and mathematical language to early numeracy components. In A. Truckenmiller (Chair), *Arteries of academic achievement: Do certain malleable skills underlie multiple outcomes?* Symposium conducted at the annual Pacific Coast Research Conference, San Diego, CA.
- Purpura, D. J.**, Napoli<sup>§</sup>, A. R., Wehrspann<sup>§</sup>, E. A., & Gold<sup>§</sup>, Z. S. (July, 2016). Teaching mathematical language through dialogic reading: An intervention with preschool children. In D. Purpura (Chair), *Language: A critical connection between mathematics and literacy*. Symposium conducted at the annual meeting of the Society for the Scientific Study of Reading, Porto, Portugal.
- Napoli<sup>§</sup>, A. R., & **Purpura, D. J.** (July, 2016). Cross-domain relations of the home literacy and numeracy environments to preschoolers' outcomes. In D. Purpura (Chair), *Language: A critical connection between mathematics and literacy*. Symposium conducted at the annual meeting of the Society for the Scientific Study of Reading, Porto, Portugal.
- Purpura, D. J.**, Schmitt, S. A., & Ganley, C. M. (May, 2016). Foundations of mathematics: The role of executive functioning components. In S. Hart (Chair), *Exploring cognitive, affective, and contextual predictors of math performance across developmental stages*. Symposium conducted at the annual meeting of the Association for Psychological Sciences, Chicago, Illinois.
- Hart, S. A., Ganley, C. M., & **Purpura, D. J.** (May, 2016). Understanding the home numeracy environment and its association to children's math skills. In S. Hart (Chair), *Exploring cognitive, affective, and contextual predictors of math performance across developmental stages*. Symposium conducted at the annual meeting of the Association for Psychological Sciences, Chicago, Illinois.

- Schmitt, S. A., Geldhof, G. J., **Purpura, D. J.**, Duncan, R., & McClelland, M. M. (October, 2015). Examining the relations between executive function, math, and literacy during the transition to kindergarten: A multi-method approach. Paper presented at the biennial meeting for the Society for the Study of Human Development, Austin, TX.
- Purpura, D. J.**, & Napoli<sup>g</sup>, A. R. (2015, July). Understanding the relation between mathematics and literacy: The role of mathematical language. In H. Gerde (Chair), *Language, literacy, and all that other stuff: Connections between reading, math, and science*. Symposium conducted at the annual meeting of the Society for the Scientific Study of Reading, Kamuela, Hawaii.
- Purpura, D. J.**, & Logan, J. A. R. (2015, May). Non-symbolic math and math language: Connected non-linear relations to symbolic math. In C. M. Ganley (Chair), *From Preschool to College: Cognitive and Affective Predictors of Math Achievement Across Development*. Symposium conducted at the annual meeting of the Association for Psychological Science, New York, N.Y.
- Purpura, D. J.** (2015, March). Individual differences in math language, not general language, are predictive of early numeracy performance in young children. Presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, Pennsylvania.
- Napoli<sup>g</sup>, A. R., & **Purpura, D. J.** (2015, March). Home numeracy in the preschool years: Parents' specific and practices differentially relate to children's outcomes. Presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, Pennsylvania.
- Hur<sup>g</sup>, J., & **Purpura, D. J.** (2015, March). Parental math experience and its relation to the home numeracy environment and development of preschoolers' early numeracy skills. Presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, Pennsylvania.
- Purpura, D. J.**, & Napoli, A. R. (2014, July). Mediation pathways between early literacy and numeracy skills in preschool. Presented at the annual meeting of the Society for the Scientific Study of Reading, Santa Fe, New Mexico.
- Napoli<sup>g</sup>, A. R., & **Purpura, D. J.** (2014, July). Differences in home literacy and numeracy beliefs and practices on child outcomes. Presented at the annual meeting of the Society for the Scientific Study of Reading, Santa Fe, New Mexico.
- Purpura, D. J.**, & Ganley, C. (2013, September). Integrating non-mathematical domains into mathematical development: Key factors to consider in constructing effective interventions. Presented at the fall meeting of the Society for Research on Educational Effectiveness, Washington, D. C.
- Purpura, D. J.**, Baroody, A. J., & Lonigan, C. J. (2013, April). The transition from informal to formal mathematical knowledge: Mediation by numeral knowledge. Paper presented at the biennial meeting of the Society for Research in Child Development, Seattle, Washington.
- Reid, E. E., Baroody, A. J., & **Purpura, D. J.** (2013, April). Impact of interventions on preschooler's successor principle understanding and linear representation of number. Paper presented at the biennial meeting of the Society for Research in Child Development, Seattle, Washington.
- Puranik, C. S., **Purpura, D. J.**, & Lonigan, C. J. (2013, February). Examining the factor structure of alphabet knowledge in preschool. Presented at the annual Pacific Coast Research Conference, Coranado, CA.

- Purpura, D. J.**, Baroody, A. J., Eiland, M. D., & Reid, E. E. (2012, September). Fostering first-graders' reasoning strategies with the most basic sums. In A. J. Baroody (Chair), *Implications of Three Training Experiments for Tailoring Instruction to Promote the Fluency of Specific Arithmetic Families*. Symposium conducted at the fall meeting of the Society for Research on Educational Effectiveness, Washington, D.C.
- Baroody, A. J., **Purpura, D. J.**, Eiland, M. D., & Reid, E. E., (2012, September). Fostering first-graders' fluency with basic addition and subtraction combinations. In A. J. Baroody (Chair), *Implications of Three Training Experiments for Tailoring Instruction to Promote the Fluency of Specific Arithmetic Families*. Symposium conducted at the fall meeting of the Society for Research on Educational Effectiveness, Washington, D.C.
- Paliwal, V., Reid, E. E., Baroody, A. J., & **Purpura, D. J.** (2012, September). Young children's use of a shortcut to solve addition problems. In A. J. Baroody (Chair), *Implications of Three Training Experiments for Tailoring Instruction to Promote the Fluency of Specific Arithmetic Families*. Symposium conducted at the fall meeting of the Society for Research on Educational Effectiveness, Washington, D.C.
- Baroody, A. J., Reid, E. E., & **Purpura, D. J.** (2012, May). An example of a hypothetical learning progression: The successor principle and emergence of informal mathematical induction. Featured paper prepared for the International STEM Research Symposium: Quantitative Reasoning in Mathematics and Science Education, Savannah, GA.
- Purpura, D. J.**, Ganley, C., & Lubienski, S. T. (2012, May). Kindergarten-entry predictors of later mathematics, literacy, and science skills. Presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- Hume, L. E., Lonigan, C. J., Sims, D. M., Guerrero, C., & **Purpura, D. J.** (2011, November). Differential item functioning for boys and girls on the Children's Depression Inventory. Presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, Montreal, Quebec.
- Purpura, D. J.**, Baroody, A. J., & Reid, E. E. (2011, September). Practical issues in early mathematics assessment. In A. J. Baroody (Chair), *Issues in Assessment and Scoring of Early Numeracy Skills*. Symposium conducted at the annual meeting of the Society for Research on Educational Effectiveness, Washington, D.C.
- Baroody, A. J., **Purpura, D. J.**, Reid, E. E., & Eiland, M. D. (2011, September). Scoring fluency with basic addition combinations in context. In A. J. Baroody (Chair), *Issues in Assessment and Scoring of Early Numeracy Skills*. Symposium conducted at the annual meeting of the Society for Research on Educational Effectiveness, Washington, D.C.
- Reid, E. E., Baroody, A. J., & **Purpura, D. J.** (2011, September). Assessing a linear representation of the counting numbers. In A. J. Baroody (Chair), *Issues in Assessment and Scoring of Early Numeracy Skills*. Symposium conducted at the annual meeting of the Society for Research on Educational Effectiveness, Washington, D.C.
- Purpura, D. J.**, Hume, L. E., Sims, D. M., & Lonigan, C. J. (2011, July). Emergent literacy and mathematics: The value of including emergent literacy skills in the prediction of mathematics development. Presented at the annual meeting of the Society for the Scientific Study of Reading, St. Petersburg, FL.

- Sims, D. M., **Purpura, D. J.**, & Lonigan, C. J. (2011, May). The relation between children's attention deficit/hyperactivity disorder characteristic behaviors and early mathematics skills. Presented at the annual meeting of the American Psychological Society, Washington, D.C.
- Purpura, D. J.**, & Lonigan, C. J. (2011, March). The development of early numeracy: A longitudinal path analysis between counting, numerical relations, and arithmetic reasoning. Presented at the biennial meeting of the Society for Research in Child Development, Montreal, Quebec.
- Purpura, D. J.**, & Lonigan, C. J. (2010, June). The relation between counting skills and arithmetic reasoning: Mediation by numerical relations skills. Presented at the annual meeting of the Institute of Education Sciences, Washington D.C.
- Purpura, D. J.**, & Lonigan, C. J. (2010, February). Informal number-related mathematics skills: An examination of the structure of and relations between these skills in preschool. Presented at the 18th annual Pacific Coast Research Conference, Coronado, CA.
- Purpura, D. J.**, Piasta, S. B., Lonigan, C. J., & Wagner, R. (2009, April). The impact of number identification training on preschool children's counting skills. Poster presented at the biennial meeting of the Society for Research in Child Development, Denver, CO.
- Logan, J., **Purpura, D.**, Fuchs, L., & Schatschneider, C. (2009, February). Measurement properties of the SWAN ADHD rating scale: Evidence of two separate constructs. Poster presented at the 17th annual Pacific Coast Research Conference, Coronado, CA.
- Purpura, D. J.**, Wilson, S. B., & Lonigan, C. J. (2008, August). ADHD symptoms in preschool children: How well do symptoms fit DSM-IV-TR criteria? Presented at the annual meeting of the American Psychological Association, Boston, MA.
- Purpura, D. J.**, Puranik, C., & Lonigan, C. J. (2008, July). Print concepts: Is the unitary structure age dependent? Presented at the annual meeting of the Society for the Scientific Study of Reading, Ashville, NC.
- Purpura, D. J.**, & Lonigan C. J. (2008, June). Mathematics development: Kindergarten predictors of addition, subtraction, multiplication, and division. Presented at the annual meeting of the Institute of Education Sciences, Washington D.C.
- Piasta, S. B., **Purpura, D. J.**, & Wagner, R. (2008, June). Developing emergent literacy skills: The impact of alphabet instruction. Presented at the annual meeting of the Institute of Education Sciences, Washington D.C.
- Purpura, D. J.**, & Lonigan C. J. (2007, June). Can externalizing behaviors be altered by an early reading intervention? Presented at the annual meeting of the Institute of Education Sciences, Washington D.C.
- Wilson, S. B., **Purpura, D. J.**, & Lonigan, C. J. (2007, June). Behavior problems in preschool: Do they predict cognitive outcomes? Presented at the annual meeting of the Institute of Education Sciences, Washington D.C.
- LaVenia, M., Wilson, S. B., **Purpura, D. J.**, Lonigan, C. J., & Lang, L. (2007, June). Effects of coaching on instructional practice. Presented at the annual meeting of the Institute of Education Sciences, Washington D.C.

**Purpura, D. J., & Lonigan, C. J.** (2007, March). Conner's Teacher Rating Scale for preschool children: A revised, brief, age-specific measure. Presented at the biennial meeting of the Society for Research in Child Development Conference, Boston, MA.

Lonigan, C. J., Wilson, S. B., McQueen, J., & **Purpura, D. J.** (2006, June). Evaluation of preschool curricula for promoting early literacy skills in children at-risk for reading difficulties. Presented at the annual meeting of the Institute of Education Sciences, Washington D.C.

Desmond, S. A., **Purpura, D. J.**, Smith, E. M., & Soper, S. E. (2005, November). Religiosity, moral beliefs, and delinquency: Does the effect of religiosity on delinquency depend on moral beliefs? Paper presented at the annual meeting of the American Society of Criminology, Toronto, Canada.

### **INVITED PRESENTATIONS**

#### **International**

**Purpura, D. J.** (2020, January). Learning math through informal experiences: The development and evaluation of a parent-child math language picture book intervention. Invited talk at Pontificia Universidad Católica de Chile, Santiago, Chile.

**Purpura, D. J.** (2019, October). Measuring and intervening on the home numeracy environment. Invited talk at the Catholic University of Leuven, Leuven, Belgium.

**Purpura, D. J.** (2019, September). The development and evaluation of a math language intervention using picture books. Invited talk at the Catholic University of Leuven, Leuven, Belgium.

**Purpura, D. J.** (2018, September). Mathematical language instruction as a means of enhancing numeracy performance. Invited talk at the University of Tubingen, Tubingen, Germany.

**Purpura, D. J.** (2018, March). Mathematical language as a foundation for early numeracy development. Invited talk at the Catholic University of Leuven, Leuven, Belgium.

**Purpura, D. J.** (2014, September). Effective instruction: Understanding the numbers behind mathematics. Invited talk at East China Normal University, Shanghai, China.

#### **Domestic**

**Purpura, D. J.** (2021, April). Integrating numeracy and literacy: A family picture book intervention for building early numeracy skills. Invited talk at the University of Maryland Human Development and Quantitative Methodology Colloquium Series, Virtual Presentation.

**Purpura, D. J.** (2019, November). The development and evaluation of a family-centered picture book intervention for early math language. Plenary talk at the Erikson Institute Promising Math Conference, Chicago, IL.

**Purpura, D. J.** (2017, November). The role of language in early mathematics development. Presentation at the College of Health and Human Sciences Research Awards Day, West Lafayette, IN.

**Purpura, D. J.** (2016, March). From assessment to intervention: The role of non-mathematical factors in mathematics development. Invited talk at the Crane Center for Early Childhood Research and Policy Distinguished Speaker Series, Columbus, OH.

**Purpura, D. J.** (2015, October). The ABCs of 123s: The role of language in early numeracy

development. Invited talk at the Michigan State University ELLI lab, East Lansing, MI.

**Purpura, D. J.** (2014, October). Foundations of mathematics: The importance of mathematical language. Invited talk at the University of Illinois at Urbana-Champaign, Champaign, IL.

**Purpura, D. J.** (2014, September). The nature and constructs of early mathematics skills and how non-mathematical skills impact development: Implications for assessment. Presented at the Distinguished Lecture Series – Research Around the Intersection of Mathematics Education and Special Education, Purdue University, West Lafayette, IN.

**Purpura, D. J.** (2013, September). Reading the math on the wall: Untangling the relation between early literacy and early math. Presented at the 2013 Institute of Education Sciences Principal Investigator Meeting, Washington, D. C.

**Purpura, D. J.** (2013, July). Equal sharing in preschool: A developmental framework with cognitive and linguistic linkages. Presented at the third annual National Center for Improving Learning of Fractions meeting, Long Beach, CA.

**Purpura, D. J.** (2013, March). Untangling the comorbidity: Assessing and understanding the relation between academic functioning and ADHD-like behaviors. Presented at the Purdue Clinical Psychology Colloquium, West Lafayette, IN.

**Purpura, D. J.** (2013, February). Adding it up: The development and acquisition of early mathematics skills. Presented at the Purdue Cognitive Psychology Colloquium, West Lafayette, IN.

**Purpura, D. J.** (2012, March). The development of a brief mathematics assessment tool. Invited symposium presentation at the 2012 Institute of Education Sciences Principal Investigator Meeting, Washington, D. C.

#### **PROFESSIONAL DEVELOPMENT TRAININGS**

**Purpura, D. J.** (2021, August). Teaching math through picture books. First annual Center for Early Learning Professional Development Day, West Lafayette, Indiana.

**Purpura, D. J.** (2020, November). Reading and talking about math: Building math skills through storybooks. Invited talk at the Promoting Positive Outcomes Conference, Indiana, Virtual.

**Purpura, D. J.** (2020, January). Using dialogic reading to support math development in early childhood. Professional development training at Pontificia Universidad Católica de Chile, Santiago, Chile.

**Purpura, D. J.** (2016, August). Integrating mathematical language into your classroom: Using stories and books to teach beginning math concepts. Professional development training for the Columbus School Readiness Conference, Columbus, OH.

**Purpura, D. J.** (2015, September). Using dialogic reading to teach mathematical language. Professional development training for Miller Child Development Lab School, West Lafayette, IN.

**Purpura, D. J.** (2015, August). Building the foundation for mathematics: Integrating mathematical language into everyday instruction. Professional development training for the Language and Early Literacy Conference, Columbus, OH.

**Purpura, D. J.** (2015, July). The language of early math: Making math meaningful. Professional development training for the Texas School Readiness Summer Institute, Houston, TX.

**Purpura, D. J., & Napoli<sup>g</sup>, A. R.** (2015, March). Math in the early years: Making math plentiful and meaningful. Professional development training for the Greater Lafayette area Head Start and Early Head Start teachers, Lafayette, IN.

### **TEACHING EXPERIENCE**

#### **Intervention – HDFS 629**

- Redesigned a graduate course on intervention design and development to more broadly apply across the interdisciplinary areas of the department (e.g., early childhood, health, aging).
- Taught design, practical, and methodological considerations in constructing interventions for both basic and applied purposes.

#### **Child Automated Speech-to-Text (CAST) Natural Language Processing Project – ENGR 39720/47920**

- Leading a team of engineering, computer science, and statistics students to develop an automated speech-to-text program that works with children's voices to support work in parent-child interaction research.
- Team of students is participating in both the Vertically Integrated Projects (VIP) program in engineering and the Data Mine through the Department of Statistics.

#### **Science and Stories – HONR 499**

- Taught the scientific background behind children's picture books and how to embed educational content into stories.
- Led students in the development of a picture book focused on early patterning skills.

#### **Honors Research Opportunity – Early Math Development – HDFS 390H**

- Recruited first-year students in the honors college to participate in a three semester introduction to research seminar.
- During first semester students participate in a weekly one hour seminar (1 cr), the second semester they participate in the seminar and begin working in my research lab (2 cr), and in the third semester they continue with the seminar, conduct presentations, and begin more advanced work in the lab (3 cr).
- Three cohorts of students (2016, 2018, and 2020) have participated in this program.

#### **Mathematics in Preschool and Primary Grades – HDFS 406**

- Taught evidence-based pedagogical and content knowledge of preschool and primary school mathematics to pre-service teachers.

#### **Undergraduate Research Methods – HDFS 346**

- Designed and taught introductory research methods course to undergraduate majors in Human Development and Family Studies.

#### **Graduate Departmental Colloquium – HDFS 697**

- Developed and planned professional development activities for the graduate students and organized and scheduled internal and external research presentations.

#### **Directed Independent Study**

- Mentored undergraduate and graduate students in the practice of research, data collection, and early mathematics content knowledge



- Instructed students on data management procedures using statistical software

### **GRADUATE STUDENT COMMITTEES**

#### Dissertation

- Yemimah King – (HDFS – Purdue University) – *“The factor structure of parents’ math-related talk and its relation to children’s early academic skills.”* Ph.D., 2022 (Chair).
- Abigail McClintock – (Nursing – Purdue University) – *“Screening for early identification of diabetes: Raising awareness of school personnel.”* Doctor of Nursing Practice, 2022.
- Jimena Cosso – (Educational Psychology and Research Methodology – Purdue University) – *“Building a bridge between measurement and Latine Families: The case of the home numeracy environment.”* Ph.D. 2022.
- Lindsey Bryant – (HDFS – Purdue University) – *“Relations between sport participation, executive functioning, and academic outcomes in childhood.”* Ph.D., 2022.
- Amy Napoli – (HDFS – Purdue University) – *“Do parent-child math activities add up? A home numeracy environment intervention for parents of preschool children.”* Ph.D., 2018 (Chair).
- Irem Korucu – (HDFS – Purdue University) – *“Pathways to early school success: Exploring the individual and collective contributions of contextual factors and school readiness skills.”* Ph.D., 2018.
- Zachary Gold (HDFS – Purdue University) *“Engineering Play: Exploring Associations with Executive Function, Mathematical Ability, and Spatial Ability in Preschool.”* Ph.D., 2017.
- Arum Han (Psychological Sciences – Purdue University) *“Perception of Quantity Predicts Early Number Learning.”* Ph.D., 2016.
- Treshawn Anderson (HDFS - Purdue University) *“Beliefs about Education and Care: A New Measure for Infant Toddler Teachers.”* Ph.D., 2015.
- Michael Eiland (Curriculum & Instruction - University of Illinois) *“Fostering Fluency with Basic Addition and Subtraction Facts Using Computer-aided Instruction.”* Ph.D., 2014.

#### Thesis

- Fabiola Herrera (HDFS – Purdue University) – *“The differential impact of filial responsibility on Latinx youth internalizing and externalizing problems.”* M.S., 2022.
- Lauren Westerberg (HDFS – Purdue University) – *“The home science environment and its relation to children’s science performance in preschool.”* M.S., 2021 (Chair).
- Yemimah King (HDFS – Purdue University) – *“The association between the home numeracy environment and early math skills: Math language as a moderator.”* M.S., 2019 (Chair).
- Lindsey Bryant (HDFS – Purdue University) – *“Physical activity, structured sport participation, executive function in preschools.”* M.S., 2019.
- Adassa Budrevich (HDFS – Purdue University) – *“Examining classroom quality as a moderator between pre-kindergarten participation and school readiness.”* M.S., 2019).
- Amy Napoli (HDFS – Purdue University) *“The Home Literacy and Numeracy Environment in Preschool: Cross-Domain Relations of Parent Practices and Child Outcomes.”* M.S., 2015 (Chair).

### **ADDITIONAL CONSULTING EXPERIENCE**

*Certified reviewer, Institute of Education Science What Works Clearinghouse  
August 2011-Present*

- Completed an extensive training and certification process to ensure reliability on reviewing manuscripts based on set methodological and statistical criteria
- Review manuscripts and manuscript reports for WWC panels

*Mathematics Curriculum Consultant, Inventive Designs for Education & the Arts, LLC.  
August 2011-May 2012*

- Consult with an interdisciplinary team to develop transmedia applications to enhance young children’s (3 to 8 years old) mathematics and reading skills
- Develop means of instructing specific mathematics skills for iPad applications

**ENGAGEMENT AND SERVICE**

**Editorial and Review Work**

Editorial Work

2021-present	Associate Editor, <i>Journal of Educational Psychology</i>
2016-2021	Associate Editor, <i>Early Childhood Research Quarterly</i>
2019	Editor of Special Issue in <i>Early Childhood Research Quarterly</i> on “Cross-domain development of early academic and cognitive skills.”
2018	Co-Editor of Special Section in <i>Early Childhood Research Quarterly</i> on “The Tennessee PreK Study: Short- and long-term findings and implications for early childhood education expansion.”

Editorial Boards

2021-present	<i>Journal for the Study of Education and Development</i>
2017-present	<i>Journal of Learning Disabilities</i>
2017-present	<i>Learning and Individual Differences</i>
2017-present	<i>International Journal of Behavioral Development</i>
2017-2019	<i>Journal of Educational Psychology</i>
2013-2016	<i>Journal for Research on Educational Effectiveness</i>

Grant Reviewer

2012, 2021	Ad hoc reviewer for National Science Foundation
2013, 2014, 2016, 2018 2019	National Science Foundation Grant Review Panelist for the Education and Human Resources Core Research Program
2015	Ad hoc reviewer for the Research Foundation – Flanders (Belgium)

Conference Reviewer

2020	2021 <i>Society for Research in Child Development</i> Conference
2017	2018 <i>Society for Research on Educational Effectiveness</i> Conference
2012, 2020	2013 <i>Society for Research in Child Development</i> Conference
2011	2011 <i>Society for Research on Educational Effectiveness</i> Fall Conference

Ad Hoc Journal Reviewer (2009-present)

American Educational Research Journal, Annals of Dyslexia, Assessment for Effective Intervention, Child Development, Developmental Psychology, Developmental Science, Early Childhood Research Quarterly, Educational Researcher, Journal of Abnormal Child Psychology, Journal of Applied Developmental Psychology, Journal of Educational Psychology, Journal of Experimental Child Psychology, Journal of Learning Disabilities, Journal of Research on Educational Effectiveness, Journal of Speech, Language, and Hearing Research, Learning and Individual Differences, Psychological Science, Remedial and Special Education, Review of Educational Research

**Service, Engagement, and Leadership**

Leadership experience is denoted with a #

To the Field

- #Chair – *Mathematical Cognition and Learning Society* - 2022
- #Chair-Elect – *Mathematical Cognition and Learning Society* - 2021
- Panelist – Institute of Education Sciences Preschool Practice Guide

- #Governing Board Member – *Mathematical Cognition and Learning Society* – 2020-present
- Indiana School Accountability Committee Member - 2016
- Tippecanoe County Accountability Committee Member – May 2016-June 2018
- Indiana Early Learning Foundations Revision Workgroup Participant - 2015
- FCR-STEMLearn Teacher Certificate Institute small group facilitator - 2014

To the College/University

- #HHS Strategic Plan Roadmap Committee, Chair – 2021
- #Co-Director, Center for Early Learning
- Honors College Scholarly Project Review Committee Member – 2020-present
- Honors College Faculty Governance Committee Member – January 2020-present
- Kinley Trust Grant Reviewer – 2017-present
- Devito Scholars Mentor (College of Education) 2018-2019
- Purdue National and International Scholarships STEM Advisory Group – 2013-2016
- University Residences Faculty Fellow – 2015-2017
- Boiler Gold Rush Faculty Mentor 2014-2018

To the Department

- Early Childhood Education and Exceptional Needs Committee, *Purdue Department of Human Development and Family Studies* – August 2012 - present
- #Graduate Committee, Co-Chair, *Purdue Department of Human Development and Family Studies* – July 2020-present
- Graduate Committee, Member, *Purdue Department of Human Development and Family Studies* – August 2014-2016, 2018-present
- Undergraduate Committee, *Purdue Department of Human Development and Family Studies* – August 2016-2018
- Faculty Search Committee member – Fall 2012, Fall 2015, Fall 2017, Fall 2020
- #Faculty Search Committee Chair – Spring 2018, Fall 2018