

Curriculum Vitae
NANCY C. JORDAN
 School of Education
 University of Delaware
 Newark, DE 19716
 Phone: (302) 831- 4651
 E-mail: njordan@udel.edu

Google Scholar Link: <https://scholar.google.com/citations?user=ZKxfXi0AAAAJ&hl=en>

Education and Training

Post-Doctoral Research Fellow in Child Development (NICHD), University of Chicago,
 Chicago, IL 1987-1989
 Doctor of Education, Human Development, Harvard University, Cambridge, MA 1985
 Master of Arts in Teaching, Northwestern University, Evanston, IL
 Bachelor of Arts, University of Iowa, Iowa City, IA

Academic Honors

Phi Beta Kappa, University of Iowa
 Distinction on Qualifying Paper, Harvard Graduate School of Education.
 Henry Rutgers Research Fellowship for outstanding junior faculty, Rutgers University.
 New Jersey Psychological Association Research Award for the Study of Contemporary
 Social Problems.
 Phi Kappa Phi, University of Delaware.
 Distinguished Faculty Award, College of Education and Human Development,
 University of Delaware
 Fellow, Association for Psychological Science
 Dean Family Endowed Chair of Teacher Education

Recent Professional Experience

2109- Dean Family Endowed Chair of Teacher Education, School of Education,
 University of Delaware, Newark, DE.

2004 - Professor, School of Education, University of Delaware, Newark, DE.

1997 - 2004 Associate Professor. School of Education, University of
 Delaware, Newark, DE.

1995 - 1997 Assistant Professor. School of Education. University of
 Delaware, Newark, DE.

External Research Funding

2016 – 2020 Developing a Fraction Sense Intervention for Students with or at Risk
 for Mathematics Difficulties. U. S. Department of Education, Institute of
 Education Sciences. Principal Investigator (with Nancy Dyson).
 \$1,499,997

- 2015 – 2019 Refining and Extending a Number Sense Screener for Identifying Children at Risk for Mathematical Difficulties in School. U. S. Department of Education, Institute of Education Sciences. Principal Investigator (with Alice Klein). \$1,598,792
- 2010 – 2015 Improving Understanding of Fractions among Students with Mathematical Learning Difficulties. Special Education Research and Development Center. U. S. Department of Education, Institute of Education Sciences. Principal Investigator (with Lynn Fuchs and Robert Siegler). \$9,896,532
- 2008 – 2013 Developing Number Sense in Children at Risk for Mathematics Learning Disabilities (R01 HD059170). National Institute of Child Health and Human Development. Principal Investigator. \$1,869,094
- 2003 – 2008 A Developmental Study of Mathematics Disabilities (R01 HD036672). Competing Continuation Grant. National Institute of Child Health and Human Development. Principal Investigator. \$1,614,468
- 1999 - 2002 A Developmental Study of Mathematics Disabilities (R01 HD036672). National Institute of Child Health and Human Development. Principal Investigator. \$440,472
- 1991 - 1992 Verbal and nonverbal calculation abilities in young children from low- and middle-income families. Spencer Foundation Small Grant. \$7,500
- 1984 - 1985 Language-processing abilities in children: A developmental study based on speech-shadowing techniques. Doctoral Dissertation Research Grant. National Science Foundation. \$3,000

Training Program Awards

- 2013 – 2018 Postdoctoral Training in Children's Mathematics, Language, and Cognition (R305B130012). Postdoctoral Training in the Education Sciences. Principal Investigator (with Roberta Golinkoff and Henry May). \$681,600

Journal Articles

- Rinne, L., Ye, A., & Jordan, N.C. (in press). Development of arithmetic fluency: A direct effect of reading fluency? *Journal of Educational Psychology*.
- Dyson, N., Rodrigues, J., Barbieri, C, Rinne, L. & Jordan, N. C (2018, in press). A fraction sense intervention for students with or at risk for mathematics difficulties. *Remedial and Special Education*. Advance online publication. DOI: 10.1177/0741932518807139
- Resnick, I., Rinne, L., Barbieri, C. & Jordan, N. C. (2018). Children's

- reasoning about decimals and its relation to fraction learning and mathematics achievement. *Journal of Educational Psychology*. Advance online publication. <http://dx.doi.org/10.1037/edu0000309>
- Hansen, N., Rinne, L., Jordan, N. C., Ye, A., Resnick, I., Rodrigues, J. & (2017). Co-development of fraction magnitude knowledge and mathematics achievement from fourth through sixth grade. *Learning and Individual Differences*, 60, 18-32 <https://doi.org/10.1016/j.lindif.2017.10.005>
- Jordan, N.C., Resnick, I., Rodrigues, J., Hansen, N. & Dyson, N. (2017). The Delaware longitudinal study of fraction learning: Implications for helping children with mathematics difficulties. *Journal of Learning Disabilities*. 50(6) 621-630 DOI: 10.1177/002221941662033
- Gersten, R., Schumacher, R.F., & Jordan, N.C. (2017). Life on the number line: Routes to understanding fraction magnitude for students with difficulties learning mathematics. *Journal of Learning Disabilities*. 50(6) 655-657 DOI: 10.177/0022219416662625
- Gersten, R. & Jordan, N.C. (2017). Introduction to the special series on fraction learning. *Journal of Learning Disabilities*, 50(6) 612-613. DOI:10.1177/0022219416662031
- Jordan, N.C., Rinne, L., & Resnick, I. (2017). Magnitude, numerosity, and development of number. Implications for mathematics disabilities. *Behavioral and Brain Sciences*, 40, doi:10.1017/S0140525X16002132
- Rinne, L., Ye, A., & Jordan, N. C. (2017). Development of fraction comparison strategies: A Latent Transition Analysis. *Developmental Psychology*, 53(4), 713-730. <http://dx.doi.org/10.1037/dev0000275>
- Bailey, D., Hansen, N., & Jordan, N.C. (2017). The co-development of children's fraction arithmetic skill and fraction magnitude understanding. *Journal of Educational Psychology*. 109(4), 509-519. <http://dx.doi.org/10.1037/edu0000152>
- Hansen, N., Jordan, N. C., & Rodrigues, J. (2017). Identifying persistent learning difficulties in fractions: A Longitudinal study of student growth from third through sixth grade. *Contemporary Educational Psychology*, 50(c), 49-59. <https://doi.org/10.1016/j.cedpsych.2015.11.002>
- Rodrigues, J., Dyson, N., Hansen, N., & Jordan, N.C. (2016). Preparing for algebra by building fraction sense. 49 (2) *Teaching Exceptional Children*.
- Ye, A., Resnick, I., Hansen, N., Rodrigues, J., Rinne, L. & Jordan, N.C. (2016). Pathways to fraction learning: Numerical abilities mediate the relation between early cognitive competencies and later fraction knowledge. *Journal of Experimental Child Psychology*, 152, 242-263.
- Resnick, I., Jordan, N. C., Hansen, N., Rajan, V., Rodrigues, J., Siegler, R. S., & Fuchs, L. (2016). Developmental Growth Trajectories in Understanding of Fraction Magnitude from Fourth through Sixth Grade. *Developmental Psychology*, 52 (5) 746-757. <http://dx.doi.org/10.1037/dev0000102>
- Fuchs, L. S., Malone, A., Schumacher, R., Namkung, J., Hamlett, C. L., Jordan, N. C., Siegler, R. S., Gersten, R., & Changas, P. (2016). Supported self-explaining during fraction intervention. *Journal of Educational Psychology*, 108 (4), 493-508. doi: <http://dx.doi.org/10.1037/edu0000073>

- Hassinger-Das, B., Jordan, N. C., & Dyson N. (2015). Reading stories to learn math: Mathematics vocabulary instruction for children with early numeracy difficulties. *The Elementary School Journal*, *116* (2), 242-264.
- Dyson, N., Jordan, N. C., Beliakoff, A., & Glutting, J. (2015). A kindergarten number sense intervention for low-achieving children with contrasting practice conditions. *Journal for Research in Mathematics Education*, *46*(3), 280-319.
- Hansen, N., Jordan, N. C., Fernandez, E., Siegler, R. S., Fuchs, L. S., Gersten, R. & Micklos, D.A. (2015). Predictors of fraction knowledge in sixth grade. *Cognitive Development*, *35*, 34-49.
- Bailey, D.H., Zhou, X., Zhang, Y., Cui, J., Fuchs, L., Jordan, N. C., Gersten, R., & Siegler, R.S. (2015). Development of fraction concepts and procedures in U.S. and Chinese children. *Journal of Experimental Child Psychology*, *129*, 68-83. doi: 10.1016/j.jecp.2014.08.006.
- Fuchs, L.S., Fuchs, D., Compton, D., Wehby, J., Shumacher, R.F., Gersten, R., & Jordan, N. C., (2015). Inclusion versus specialized intervention for very low-performing students: What does *access* mean in an era of academic challenge? *Exceptional Children*, *8*(2), 132-157.
- Vukovic, R. K., Fuchs, L.S., Geary, D. C., Jordan, N. C., Siegler, R. S., & Gersten, R. (2014). Sources of individual differences in children's conceptual understanding of fractions. *Child Development*, *85*, 1461-1476. doi: 10.1111/cdev.12218
- Dyson, N., Jordan, N. C., & Hassinger-Das, B. (2015). The story of Kyle: Evidence-based number sense interventions can help kindergartners link their nonverbal understanding to symbolic representations of number, number relations, and number operations. *Teaching Children Mathematics*, *21*(6), 354-361.
- Hassinger-Das, B., Jordan, N. C., Glutting, J., Irwin, C., & Dyson, N. (2014). Domain general mediators of the relation between kindergarten number sense and first-grade mathematics achievement. *Journal of Experimental Child Psychology*. *118*, 78-92.
- Fuchs, L. S., Shumacher, R.F., Sterba, S.K., Long, J., Namkung, J., Malone, A., Hamlett, C. L., Jordan N.C., Gersten, R., Siegler, R.S., & Changas, P. (2014). Does working memory moderate the effects of fraction intervention? An Aptitude-Treatment Interaction. *Journal of Educational Psychology* *106* (2), 499-514. doi: 10.1037/a0034341
- Fuchs, L. S., Schumacher, R. F., Long, J., Namkung, J., Hamlett, C. L., Cirino, P. T., Jordan, N. C., Siegler, R. S., Gersten, R., & Changas, P. (2013, April 29). Improving at-risk learners' understanding of fractions. *Journal of Educational Psychology*. Advance online publication. doi: 10.1037/a003431
- Kauffman, L., Mazzocco, M. M., Dowker, A., von Aster, M., Gobel, S., Grabner, R. H., Henik, A., Jordan, N. C., Karmiloff-Smith, A.D., Kucian, K., Rubenstein, O., Szucs, D., Shalev, R., Nuerk, H. (2013). Dyscalculia from a developmental and differential perspective. *Frontiers in Developmental Psychology*, doi: 10.3389/fpsyg.2013.00516.
- Jordan, N. C., Hansen, N., Fuchs, L.S., Siegler, R. S., Gersten, R., & Micklos, D. (2013). Developmental predictors of fraction concepts and procedures. *Journal of Experimental Child Psychology*, *116*, 45-58. doi: 10.1016/j.jecp.2013.02.001
- Jordan, N. C., Glutting, J., Dyson, N., Hassinger-Das, B., & Irwin, C. (2012). Building kindergartners' number sense: A randomized controlled study. *Journal of Educational Psychology*. *104*(3), 647-660. doi: 10.1037/a0029018

- Dyson, N., Jordan, N. C., & Glutting, J. (2013). A number sense intervention for urban kindergartners at risk for mathematics learning difficulties. *Journal of Learning Disabilities, 46*(2), 166-18. doi: 10.1177/0022219411410233
- Gersten, R., Clarke, B., Jordan, N. C., Newman-Gonchar, R., Haymond, K., & Wilkins, C. (2012). Universal screening in mathematics for students in the primary grades. *Exceptional Children, 78*, 423-45.
- Jordan, N. C., Glutting, J., & Ramineni, C., & Watkins, M. W. (2010). Validating a number sense screening tool for use in kindergarten and first grade: Prediction of mathematics proficiency in third grade. *School Psychology Review, 39*, 181-195.
- Jordan, N. C., Glutting, J. & Ramineni, C. (2010). The importance of number sense to mathematics achievement in first and third grades. *Learning and Individual Differences, 20*, 82-88.
- Jordan, N. C., Kaplan, D., Ramineni, C., & Locuniak, M. N. (2009). Early math matters: Kindergarten number sense and later mathematics outcomes. *Developmental Psychology, 45*, 850-867.
- Jordan, N. C. & Levine, S. C. (2009). Socio-economic variation, number competence, and mathematics learning difficulties in young children. *Developmental Disabilities Research Reviews, 15*, 60-68.
- Locuniak, M. N. & Jordan, N. C. (2008). Using kindergarten number sense to predict calculation fluency in second grade. *Journal of Learning Disabilities, 41*(5), 451-459.
- Jordan, N. C., Kaplan, D., Ramineni, C., & Locuniak, M. N. (2008). Development of number combination skill in the early school years: When do fingers help? *Developmental Science, 11*(5), 662-668.
- Jordan, N. C. (2007). The need for number sense. *Educational Leadership, 65*(2), 63-66. [Selected also to be included in the 2009 e-book *Supporting the Whole Child: Reflections on Best Practices in Learning, Teaching, and Leadership*, ASCD].
- Jordan, N. C. Kaplan, D., Locuniak, M.N & Ramineni, C. (2007). Predicting first-grade math achievement from developmental number sense trajectories. *Learning Disabilities Research and Practice, 22*(1), 36-46
- Jordan, N. C., Kaplan, D., Nabors Olah, L., & Locuniak, M. N. (2006). Number sense growth in kindergarten: A longitudinal investigation of children at risk for mathematics difficulties. *Child Development, 77*(1), 153-175. DOI: 10.1111/j.1467-8624.2006.00862.x
- Google Scholar Classic: Top cited paper in Early Childhood Education**
- Gersten, R., & Jordan, N. C. (2005). Early Screening and Intervention in mathematics difficulties: The need for action. *Journal of Learning Disabilities 38*(4), 291-292.
- Gersten, R. Jordan, N. C., & Flojo, J. R. (2005). Early identification and intervention for students with mathematics difficulties. *Journal of Learning Disabilities, 38*(4), 293-304.
- Hanich, L. B. & Jordan, N. C. (2004). Achievement-related beliefs of third-grade children with mathematics and reading difficulties. *Journal of Educational Research, 97*(5), 227-233.
- Jordan, N. C. & Hanich, L. B. (2003). Characteristics of children with moderate mathematics deficiencies: A longitudinal perspective. *Learning Disabilities Research and Practice, 18*(4), 213-221.
- Jordan, N. C., Hanich, L. B., & Kaplan, D. (2003). Arithmetic Fact Mastery in Young Children: A Longitudinal Investigation. *Journal of Experimental Child Psychology, 85*, 103-119.

- Jordan, N. C., Hanich, L. B., & Kaplan, D. (2003). A longitudinal study of mathematical competencies in children with mathematics difficulties versus children with co-morbid mathematics and reading difficulties. *Child Development, 74*(3), 834-850.
- Jordan, N. C., Kaplan, D., & Hanich, L. B. (2002). Achievement growth in children with learning difficulties in mathematics: Findings of a two-year longitudinal study. *Journal of Educational Psychology, 94*, 586-597.
- Hanich, L.B., Jordan, N. C Kaplan, D., & Dick, J. (2001). Performance across different areas of mathematical cognition in children with learning difficulties. *Journal of Educational Psychology, 93* (3), 615-626.
- Jordan, N. C. & Hanich, L. B. (2000). Mathematical thinking in second-grade children with different forms of learning difficulties. *Journal of Learning Disabilities, 33* (6), 567-578.
- Jordan, N. C., & Montani, T. O. (1997). Cognitive arithmetic and problem solving: A comparison of children with specific and general mathematics difficulties. *Journal of Learning Disabilities, 30* (6), 634-634, 684.
- Jordan, N. C. (1995). Clinical assessment of early mathematical disabilities: Adding up the research findings. *Learning Disabilities Research and Practice, 10* (1), 59-69.
- Jordan, N. C., Levine, S. C., & Huttenlocher, J. (1995). Calculation abilities in young children with different patterns of cognitive functioning. *Journal of Learning Disabilities, 28* (1), 53-64.
- Jordan, N. C., Levine, S. C., & Huttenlocher, J. (1994). Assessing early arithmetic abilities: Effects of verbal and nonverbal response types on the calculation performance of middle- and low-income children. *Learning and Individual Differences, 6* (4), 413-432.
- Huttenlocher, J., Jordan, N. C., & Levine, S. C. (1994). A mental model for early arithmetic. *Journal of Experimental Psychology: General, 123* (3), 284-296.
- Jordan, N. C. (1994). Developmental assessment of reading disabilities. *Reading and Writing Quarterly, 10* (4), 297-311.
- Jordan, N. C., Levine, S. C., Huttenlocher, J. (1994). Development of calculation abilities in middle- and low-income children after formal instruction in school. *Journal of Applied Developmental Psychology, 15* (2), 223-240.
- Jordan, N. C., Huttenlocher, J. & Levine, S. C. (1992). Differential calculation abilities in children from middle- and low-income families. *Developmental Psychology, 28* (4), 644-653.
- Levine, S. C., Jordan, N. C., & Huttenlocher, J. (1992). Development of calculation abilities in young children. *Journal of Experimental Child Psychology, 53* (1), 72-103.
- Jordan, N. C. (1988). Language processing and reading ability in children: A study based on speech-shadowing techniques. *Journal of Psycholinguistic Research, 17* (5), 357-377.
- Jordan, N. C., & Levine, M. D. (1987). Learning disorders: Assessment and management strategies, *Contemporary Pediatrics, 4* (9), 31-62.
- Levine, M. D., & Jordan, N. C. (1987). Learning disorders: The developmental underpinnings. *Contemporary Pediatrics, 4* (8), 16-43

Published Tests and Educational Materials

- Jordan, N. C. & Dyson, N. (2013). *Number Sense Interventions*. Baltimore: Brookes.
- Jordan, N. C. & Glutting, J. (2012). *Number Sense Screener*. Baltimore: Brookes.

Books, Book Chapters and Research Reports

- Jordan, N. C., Barbieri, C., Dyson, N., and Devlin, B. (accepted). Improving learning in students with mathematics difficulties: Contributions from the science of learning
In K. Newton, A. Martin, and R.A. Sperling (Eds.), *Handbook of Educational Psychology and Students with Special Needs*. NY: Routledge.
- Jordan, N. C., Rinne, L., & Hansen, N. (2019). Mathematics learning difficulties in the United States: Current issues in screening and intervention. In Fritz-Stratman, A., Haase, V. G., & Rasanen, P. (Eds.) *International Handbook of Mathematics Learning Difficulties*. (pp. 183-199). Springer International AG.
- Resnick, I., Newcombe, N. S., & Jordan, N. C. (2019). The relation between spatial reasoning and mathematics in children with mathematics learning difficulties. In Fritz-Stratman, A., Haase, V. G., & Rasanen, P. (Eds.) *International Handbook of Mathematics Learning Difficulties*. (pp.423-434) NY: Springer International AG.
- Jordan, N. C., Rodrigues, J., Hansen, N., & Resnick, I. (2017). Fraction Development in Children: Importance of Building Numerical Magnitude Understanding. In Geary, D. C., Koepke, K. M., Berch, D., & Ochsendorf, R. (Eds.) *Mathematical cognition and learning* (Volume 3). (pp.126-137) NY: Elsevier.
- Rittle-Johnson, B. & Jordan, N.C. (2016). *Synthesis of IES-funded research on mathematics: 2002 – 2013* (NCER 2016-2003) Washington, DC. National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. This report is available on the Institute website at <http://ies.ed.gov/>
- Jordan, N. C., & Dyson, N. (2016). Catching math problems early: Findings from the number sense intervention project. In A. Henrik (Ed.), *Continuous issues in numerical cognition: How many or how much?* (pp. 60-79) NY: Elsevier.
- Siegler, R. S., Fuchs, L., Jordan, N. C, Gersten, R., & Ochsendorf, R. (2015). Center for Improving Understanding of Fractions: A progress report. *The Routledge International Handbook for mathematical difficulties and dyscalculia*. (pp. 292-303) London: Routledge.
- Jordan, N. C., Fuchs, L. S. & Dyson, N. (2015). Early interventions and mathematical cognition. In Cohen Kadosh, R. and Dowker, A. (Eds.) *Oxford handbook on numerical cognition*. (pp. 1079-1097) Oxford, UK: Oxford University Press.
- Frye, D., Baroody, A., Burchinal, M., Carver, S. M., Jordan, N. C., & McDowell, J. (2013). *Teaching math to young children: A practice guide*. Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education.
- Jordan, N. C. (2010). Early predictors of mathematics achievement and mathematics learning difficulties. In R. E. Tremblay, R.G. Barr, R.D. Peters, M. Boivin, (Eds.), *Encyclopedia on early childhood development* [online]. Montreal, Quebec: Centre of Excellence for Early Childhood Development;1-6. Available at: <http://www.child-encyclopedia.com/documents/JordanANGxp.pdf>
- National Research Council (2009). *Mathematics learning in early childhood: Paths toward excellence and equity*. Committee on Early childhood Mathematics, C. T. Cross, T. A. Woods, and H. Schweingruber, (Eds), Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. (Committee member)

- Jordan, N. C., Glutting, J., & Ramineni, C. (2008). A number sense assessment tool for identifying children at risk for mathematical difficulties. In A. Dowker (Ed.), *Mathematical difficulties: Psychology and intervention*, (pp. 45-58), San Diego, CA: Academic Press.
- Gersten, R. G., Clarke, B. S., & Jordan, N. C. (2007). *Screening for mathematics difficulties in K-3 students*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.
- Jordan, N. C. (2007). Decoding children's math problems: Connections between mathematics and reading difficulties. In Berch D. B. and Mazzocco, M. M. M. (Eds.), *Why is math so hard for some children? The nature and origins of mathematical learning difficulties and disabilities*, (pp. 107-120), Baltimore, MD: Paul H. Brookes.
- Jordan, N. C., Hanich, L., & Uberti, H. Z. (2003). Mathematical thinking and learning disabilities. In A. Baroody & A. Dowker (Eds.), *The development of arithmetic concepts and skills. Recent research and theory* (pp. 359-383), Mahwah, NJ: Erlbaum.
- Jordan, N. C. (1997). A developmental framework for the assessment of reading disabilities. To appear in L. R. Putnam (Ed.), *Readings on language and literacy: Essays in honor of Jeanne S. Chall*. Cambridge, MA: Brookline.
- Jordan, N. C. & Montani, T. O. (1996). Mathematics difficulties in young children: Cognitive and developmental perspectives. Chapter in T. E. Scruggs & M. A. Mastropieri (Eds.), *Advances in learning and behavioral disabilities* (volume 10, part A) (pp. 101 - 134). Greenwich, CT: JAI Press.
- Jordan, N. C., & Goldsmith-Phillips, J. (Eds.) (1994). *Learning disabilities: New directions for assessment and intervention*. Boston: Allyn and Bacon.
- Jordan, N. C., Levine, S. C., & Huttenlocher, J. (1994). Differential calculation abilities in young children at risk: Linking research with assessment and instruction. In N. C. Jordan N. C. & J. Goldsmith-Phillips (Eds.), *Learning disabilities: New directions for assessment and intervention* (pp. 147-162). Boston: Allyn and Bacon.
- Jordan, N. C., & Reed, M. S. (1988). Reading disorders in early adolescence. In M. D. Levine & E. R. McAnarney (Eds.), *Early adolescent transitions* (pp. 226-244). New York: D. C. Heath.
- Levine, M. D., & Jordan, N. C. (1987). Neuro-developmental dysfunctions: Their cumulative effects and interactions in middle childhood. In J. J. Gallagher & C. T. Ramey (Eds.), *The malleability of children* (pp. 141-154). Baltimore: Paul H. Brookes.

Recent Selected Presentations

- Dyson, N., & Jordan, N. C. (2019, April). A fraction intervention for struggling middle school math students. Paper presented at the annual meeting of the National Council for Teachers of Mathematics, San Diego, CA.
- Jordan, N.C., Klein, A., Huang, K., Devlin, B., & Beliakoff, A. (2019, March). Screener for early number sense: A research-based tool for identifying math difficulties. Symposium paper presented at the Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- Jordan, N.C., Dyson, N. Barbieri, C., & Gesuelli, K. (2019, March). Using Different Representational Tools to Develop Fraction Sense in Struggling Learners. Symposium paper presented at the Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.

- Devlin, B., Zhang, H., Beliakoff, A., Jordan, N. C., Klein, A. (2019, March). Gender differences in early number sense. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- Gesuelli, K. A., Dyson, N., Devlin, B., & Jordan, N. C. (March, 2019). *Examining Common Student Arithmetic Errors in Response to a Fraction Sense Intervention*. Poster presented at the Society for Research in Child Development Biennial Meeting, Baltimore, MD.
- Hassinger-Das, B., Hansen, N., Aloisi, K., Dyson, N., & Jordan, N. C. (2019, March). Strategizing for success: Children's use of strategies to solve number combinations and story problems. Poster presented at the biennial meeting of the Society for Research in Child Development. Baltimore, Maryland.
- Jordan, N.C. (2019, March). Living on the number line: Development of fraction knowledge in children at risk for learning disabilities in mathematics. Invited keynote presentation. Seventh Annual Research to Practice Symposium: Reading, Math, and the Brain. AIM Academy and Institute, Conshohocken, PA.
- Dyson, N., Geuselli, K., Jordan, N.C. (2019, January). A fraction sense intervention for middle school students with or at risk for mathematics difficulties. Paper presented at the annual meeting of the Council for Exceptional Children, Indianapolis, IN.
- Jordan, N.C. (2018, November). Fraction magnitude understanding in students with math Difficulties. Invited Webinar presentation. Special Education Program, University of Missouri.
- Jordan, N.C., Dyson, N., Barbieri, C., & Rodrigues, J. (2018, April). Effects of a number line approach for improving fraction understanding in students with math disabilities. In *The development of symbolic fraction knowledge—Processes and proponents*. Symposium conducted at the meeting of the Mathematical Cognition and Learning Society, Oxford, UK.
- Jordan, N.C. (2018, February). Living on the number line. Invited colloquium presented at University of Maryland Department of Human Development.
- Jordan N.C. (2018, February). Mathematical learning Difficulties. Invited Presentation, Department of Psychology. Uppsala University, Uppsala, Sweden.
- Jordan, N.C. & Barbieri, C. (2017, October). Usable knowledge for improving mathematical learning: Bridging research in cognition and development with educational practice in diverse contexts. Symposium presented at the biennial meeting of the Cognitive Development Society, Portland, OR.
- Barbieri, C., Jordan, N.C., Dyson, N. & Rodrigues, J. (2017, October). Using principles from cognition and learning to develop fraction knowledge in struggling middle schoolers. Paper presented at the biennial meeting of the Cognitive Development Society, Portland, OR.
- Rodrigues, J., Jordan, N.C., Hansen, N., Resnick, I., & Ye, A. (2107, October). Identifying fraction concepts measures as effective screeners of mathematics risk status. Poster presented at the biennial meeting of the Cognitive Development Society, Portland, OR.
- Devlin, B., Beliakoff, A., Barbieri, C., Klein, A., & Jordan, N.C. (2017, October). Demographic differences in early number competencies. Effects of gender and income status. Poster presented at the biennial meeting of the Cognitive Development Society, Portland, OR.

- Jordan, N.C. (2017, September). Living on the number line: Development of fraction magnitude understanding in children at risk for learning difficulties in mathematics. Invited colloquium presented at UMass, Department of Psychological and Brain Sciences.
- Jordan, N.C. & Rinne, L. (2017, September) Connections between calculation fluency and reading fluency: Findings from a longitudinal study between third and fifth grade. Invited paper presented a STEM Education, Learning Disabilities and the Science of Dyslexia. National Science Foundation, Washington, D.C.
- Rajan, V., & Jordan, N.C. (2017, April). The contribution of self-regulation to different aspects of early number competence in preschool. Presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Barbieri, C., Booth, J.L., & Jordan, N.C. (2017, April). The effects of incorrect worked examples on students' misconceptions and learning of mathematical content. Presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Hansen, N., Rinne, L., Ye, A., Resnick, I., Rodrigues, J. & Jordan, N.C. (2017, April). Co-development of mathematics achievement with fraction estimation and fraction comparison from fourth through sixth grade. Presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Rajan, V. & Jordan, N.C. (2017). Individual differences in preschool number competencies: The role of subitizing. Presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Rinne, L., Rodrigues, J., & Jordan, N.C. (2017, April). Reading fluency directly influences the development of multiplication fluency. Presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Resnick, I., Barbieri, C., Rinne, L., Hurwitz, A., & Jordan, N.C. (2017, April). Relation between decimal and fractions understanding and the role of magnitude understanding in overall math achievement. Presented at the Biennial Meeting of the Society for Research in Child Development.
- Jordan, N., Dyson, N., Rodrigues, J., Barbieri, C. & Rinne, L. (2017, April). A fraction sense intervention for middle school students with math difficulties. Presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Dyson, N., Rodrigues, J., & Jordan, N. C. (2016). Many concepts, few numbers: A novel approach to math interventions. Paper to be presented at the INNOV8 Engaging the Struggling Learning meeting of National Council of Teachers of Mathematics (NCTM), St. Louis, MO.
- Ye, A., Hansen, N., Resnick, I., Rodrigues, J., & Jordan, N.C. (2016). Developmental pathways to fraction learning. Presented at the American Psychological Association 2016 Annual Convention. Denver, CO.
- Jordan, N.C. Resnick, I., Rodrigues, J., Hansen, N. & Dyson, N. (2016). The Delaware longitudinal study of fraction learning: Implications for students with mathematics difficulties. Invited paper presented at the 13th International Congress on Mathematical Education. Hamburg, Germany.
- Rinne, L., Ye, A., & Jordan, N.C. (2016). The development of fraction comparison ability: A latent transition analysis of the change in strategy selection over time. Presented at Math Cognition and Learning Conference by National Institute of

- Child Health and Human Development. Fort Worth, Texas.
- Ye, A., Rajan, V., & Jordan, N.C. (2016). Latent growth trajectory of the linearity in fraction number line estimation. Presented at American Education Research Association Annual Meeting, Washington, D.C.
- Rodrigues, J., Hansen, N., Resnick, I., Dyson, N.I., Ye, A., & Jordan, N.C. (2016). A practical and powerful screener of middle school mathematics difficulties. Presented at National Council of Teachers of Mathematics Research Conference, San Francisco, CA.
- Dyson, N., Rodrigues, J., Jordan, N. C., & Hansen, N. (2016). A research-based intervention for middle school students who struggle with fraction understanding. Presented at the Annual Conference of the Council for Exceptional Children, St. Louis, MO.
- Jordan, N. C. (2016). Developing number sense in children at risk for learning difficulties in mathematics. Invited presentation at the University of Eastern Finland, Joensuu, Finland.
- Jordan, N.C. (2016). Why so many children struggle to learn fractions and how we can help them. Invited presentation at the Fourth AMBLE (Arena for Mind, Brain, Learning, and Environment) International Symposium, Gothenburg, Sweden.
- Ye, A., Hansen, N., Resnick, I., Carrique, J., & Jordan, N.C. (2016). Mediation effects of latent numerical abilities on the associations between domain general competencies and fraction knowledge. Presented at the Society for Research on Educational Effectiveness Semi-annual Meeting. Washington, D.C.
- Jordan, N. (2015). Invited symposium on developing effective fractions instruction for children with math learning difficulties. IES Annual conference. Washington, DC.
- Resnick, I., Hansen, N., Carrique, J., Rajan, V. & Jordan, N. C. (2015). Developmental growth trajectories in fraction magnitude from fourth through sixth grade. Presented at the meeting of the Cognitive Development Society. Columbus, OH.
- Jordan, N. C. (2015). Development of early number sense shapes educational outcomes. S Symposium paper presented at the meeting of the Cognitive Development Society. Columbus, OH.
- Dyson, N. & Jordan, N.C. (2015). Developing number sense in struggling math students: It's not just for kindergarten. Professional development session presented at the Annual Conference of the Pennsylvania Branch of the International Dyslexia Association (PBIDA).
- Dyson, N. & Jordan, N.C. (2015). Developing fraction sense in struggling math students. Professional Development presented at the Annual Conference of the Pennsylvania Branch of the International Dyslexia Association (PBIDA).
- Jordan, N. C. (2015). Center for improving learning of fractions: Findings for the Delaware Longitudinal Study. Invited presentation at the NIH conference on Mathematical Cognition. St. Louis, MO.
- Jordan, N. C. (2015). A number sense intervention for low-achieving kindergartners: Effects of number list vs. number facts practice. Biennial meeting of the Society for Research in Child Development. Philadelphia, PA.
- Carrique, J., Hansen, N., & Jordan, N. C. (2015). Growth and achievement in multiplication fluency from third through sixth grade. Poster presented at the Society for Research in Child Development Biennial Meeting, Philadelphia, PA.

- Hansen, N., Resnick, I., & Jordan, N. C. (2015). Development of fraction number line estimation from fourth through sixth grade. Poster presented at the Society for Research in Child Development Biennial Meeting, Philadelphia, PA.
- Hansen, N., Jordan, N. C., & Fernandez, E. F. (2015). Predictors of fractions concepts and procedures. Poster presented at the Society for Research in Child Development Biennial Meeting, Philadelphia, PA.
- Jordan, N. C. (2015). A number sense intervention for children at risk for learning disabilities in mathematics: Research to practice. Annual Meeting of the Council for Exceptional Children. Invited presentation. San Diego, CA.
- Hansen, N., & Jordan, N. C. (2014). Growth trajectories in fraction knowledge from third through sixth grade. Poster presented at the Society for Research in Child Development Special Topics Meeting: Developmental Methodology, San Diego, CA.
- Jordan, N.C. (2014). Developing number sense in children at risk for learning difficulties in mathematics. Invited presentation. Committee on Education, University of Chicago.
- Jordan, N. C. (2014). Developing number sense in children at risk for learning disabilities in mathematics. Invited keynote presentation. European Association for Research in Learning and Instruction (EARLI), Division for Special Education. Zurich, Switzerland.
- Jordan, N. C. (2014). Center on Improving Learning of Fractions: Some preliminary findings from the Delaware Longitudinal Study. Invited presentation, Beijing Normal University. Beijing, China.
- Jordan, N. C., Hansen, N., Micklos, D., & Read, B. (2014). Barriers to learning fractions. Annual meeting of the Council for Exceptional Children. Invited presentation. Philadelphia, PA.
- Jordan, N. C. & McDowell, J. (2014). Teaching math to young children: The IES practice guide. Annual meeting of the Council for Exceptional Children. Invited presentation. Philadelphia, PA.
- Jordan, N. C. (2014). Teaching math to young children: The IES practice guide. South Carolina, REL. Invited presentation.
- Jordan, N. C. (2013). Why are fractions so hard? Invited paper presented at the meeting of the Society for Research in Educational Effectiveness (SREE). Washington, DC.
- Dyson, N., Jordan, N. C. (2012). Supporting Early Math Learning with a Targeted Number Sense Intervention. Paper presented at CEC/TED conference. Grand Rapids, MI.
- Dyson, N., Jordan, N. C. (2012). Evaluation of a number sense intervention for high- risk Kindergartners. Paper presented at the research pre-session of the Annual Meeting of the National Council of Teachers of Mathematics. Philadelphia, PA.
- Jordan, N., Dyson, N. C. (2012). Screening kindergarten math skills and developing interventions with the Number Sense Screener. Paper presented at the research pre-session of the Annual Meeting of the National Council of Teachers of Mathematics. Philadelphia, PA.
- Jordan, N.C., Dyson, N., & Glutting, J. (2011) Developing number sense in kindergartners at risk for learning difficulties in mathematics. Society for Research in Educational Effectiveness, Washington, D.C.
- Jordan, N. C., Dyson, N., & Glutting, J. (2011) Developing children's number sense. Society for Research in Child Development, Montreal.
- Dyson, N. & Jordan, N. C. (2011) Helping at risk kindergartners develop number.

- National Council for Teachers of Mathematics, Indianapolis.
- Jordan, N. C. (2011) Number sense and learning disabilities in mathematics. Invited presentation. University of Florida colloquium series.
- Jordan, N. C. (2010) What are the critical abilities that are used to identify students with mathematics and reading disabilities? Invited presentation at Defining the Intersection of Reading and Math Disability Workshop, National Institute of Child Health and Human Development.
- Dyson, N. & Jordan, N. C. (2010). Helping at-risk kindergartners grow in number sense: Can a small group intervention begin to close the gap. Association for Mathematics Teacher Educators, Irvine, CA.
- Jordan, N. C., Dyson, N., James, E., & Glutting, J. (2010). Developing number competence in kindergartners at risk for mathematics learning difficulties. American Educational Research Association, Denver, CO.
- Jordan, N. C. (2010) Early predictors of mathematics difficulties. Invited presentation. Florida State University colloquium series.
- Jordan, N. C. (2009), Making strides towards excellence and equity in early childhood mathematics: Policy, practice, and research recommendations. Society for Research in Child Development, Denver, CO.
- Jordan, N. C., Kaplan, D., Ramineni, C., & Locuniak, M. N. (2009). Early predictors of math achievement and growth in elementary school. Society for Research in Child Development, Denver, CO.

Recent Professional Service/ Recent Reviewing Activities

Chair of Governing Board. Mathematical Cognition and Learning Society, 2019.

Chair-Elect of Governing Board. Mathematical Cognition and Learning Society, 2018.

Expert panel member. *Math Intervention Practice Guide*. What Works Clearinghouse. Institute of Educational Sciences, U.S. Department of Education (2019 -).

Member. Scientific Review Panel. NSF CAREER awards (2018).

Expert discussant (Opponent) at public defense of PhD dissertation (Martin Hassler). Uppsala University, Uppsala Sweden. February 2018.

Advisory board. CAREER: Neural investigations of magnitude processing as a pathway to understanding mathematical thinking. NSF award. Joonkoo Park, University of Massachusetts (2017-2022).

Advisory board. CAREER: The impact of language experience on the development of number representations in deaf, hard of hearing, and hearing children. NSF award. Maria Coppola. University of Connecticut (2016-2021).

Advisory board. CAREER: The spatial foundation of symbolic numeracy skills in young children. NSF award. Elizabeth Gunderson. Temple University (2015 to 2020).

Advisory board. Using Non-Symbolic Ratios to Promote Fraction Knowledge: A Neurocognitive Approach. NSF research grant. E. Hubbard and P. Matthews, University of Wisconsin-Madison (2014-2018).

Advisory board. Proportional Reasoning, Whole Number Operations, and Numerical Estimation. NSF research grant. T. Boyer, Georgia Southern University (2014- 2017).

Member. NICHD. Cognition and Perception Study Section (2017).

Co-chair. NICHD. Learning Disabilities Hub Scientific Review Panel (2016).

Panel member. National Governors' Association Early Math Expert Roundtable (2013 -2014).

Member. Technical Advisory Committee to support the development of a new early childhood assessment system. The Council of Chief State School Officers - Maryland and Ohio (2012 – 2018).

Field reviewer. *Exceptional Children* (2014 to present).

Editorial board member. *Journal of Educational Psychology* (2014 to present).

Editorial board member. *Journal of Experimental Child Psychology* (2011 to 2018).

Editorial board member. *Journal of Learning Disabilities* (1996 to present).

Editorial board member. *Learning Disabilities Research and Practice* (1995 to 1998; 2001 to present).

Editorial board member. *Annals of Dyslexia* (2007-2015).

Program committee, Conference on Improving Mathematics and Science Education for All Students, Society for Research on Educational Effectiveness (SREE). September, 2011.

Lunch with Leaders. Society for Research in Child Development. (2017; 2015).

Expert panel member. *Early Math Practice Guide*. What Works Clearinghouse. Institute of Educational Sciences, U.S. Department of Education (2010 - 2013).

Member. Scientific Review Panel. Math and Science Learning, Institute for Educational Sciences (2005 - 2007; 2008 – 2011; 2013; 2015; 2019).

Advisory board member. Astroblast Math. Scholastic Media.

Consultant. Math is Everywhere Project. Sesame Street Workshop. New York, NY.

Member. Go Grant Review Panel. National Institutes of Health (2009).

Member. National Committee on Early Childhood Mathematics. Center for Education, The National Academies, (2007 - 2009).

Reviewer. National Mathematics Advisory Panel (2007).

Ad hoc reviewer. National Science Foundation (2011-2012).

Ad hoc reviewer. National Institutes of Child Health and Human Development (2000 to present).

Member. ERIC Steering Committee (2004 - 2005).

Core Network member. Numeracy Network, Brain and Learning Project, Organization for Economic Cooperation and Development (2004).

Member advisory panel. Development, Implementation, and Impact Evaluation of Academic Instruction for After-School Programs. U. S. Department of Education (2004 - 2007).

Member. Scientific Review Panel. National Institute for Child Health and Human Development (2000; 2003; 2004).

Small Grants Advisory Board. Spencer Foundation (1998 to 2000).

Member. Scientific Review Panel, Interagency Educational Research Initiative, National Science Foundation (1999).

Recent Ad hoc reviewing. *Cognition, Developmental Psychology, Exceptional Children, Journal of Experimental Child Psychology, Journal for Research in Mathematics Education, Child Development, Journal of Educational Psychology, Early Childhood Research Quarterly, Journal of Special Education, Journal of Speech and Language Research, Developmental Science, Journal of Experimental Psychology: Applied, Remedial and Special Education, Science, Learning and Individual Differences, Cognitive Development, Elementary School Journal.*

Recent Professional Memberships

Association of Psychological Science

Society for Research in Child Development

Cognitive Development Society

Mathematical Cognition and Learning Society

American Educational Research Association

Council for Exceptional Children

Phi Kappa Phi (President, University of Delaware Chapter, 2005-2006)