

**Dake Zhang**  
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 Room 312  
 New Brunswick, NJ 08901  
 dake.zhang@gse.rutgers.edu

## EDUCATION

- 2008-2011      **Ph.D. in Special Education** (Cognate in Math Education),  
**August 2011.**  
 Purdue University, West Lafayette, IN.
- 2005-2007      **Master in Special Education, December 2007.**  
 Purdue University, West Lafayette, IN.
- 1999-2003      **B.S. in Psychology, July 2003.**  
**B.A. in Education, July 2003.**  
 Beijing Normal University, Beijing, China.

## PROFESSIONAL CERTIFICATIONS

Special Education Teachers' License (Indiana, expired)  
 (Qualified to teach secondary-level mild to moderate special education students)

## EMPLOYMENT

- 2025 – present      Professor, Special Education, Department of Educational Psychology, Rutgers University
- 2020 - 2025      Associate Professor (Affiliated), Institute for the Child Development,  
 Department of Pediatrics, Rutgers University, New Brunswick, NJ.
- 2018 - 2025      Associate Professor, Special Education, Department of Educational Psychology,  
 Rutgers University, New Brunswick, NJ.
- 2012-2018      Assistant Professor, Special Education, Department of Educational Psychology, Rutgers University, New Brunswick, NJ.
- 2011-2012      Assistant Professor of Special Education, Department of Teacher Education, Clemson University, Clemson, SC.
- 2003-2005      Mathematics Teacher. Olympics Sports Center for Training Youth Professional Athletes, Guangzhou, China.

## HONORS

- |      |   |  |
|------|---|--|
| 2017 | Outstanding Asian American Researcher                         | P.Y. Chou Foundation                             |
| 2016 | National Academy of Education/Spencer Postdoctoral Fellowship | National Academy of Education/Spencer Foundation |

## GRANTS

- Zhang, D., Yell, M., & Peterson, P. (PI, 2025-2030). *PASE: Preparing Administrators of Special Education*. Office of Special Education Programs, U.S. Department of Education: Personnel Development to Improve Services and Results for Children with Disabilities – Preparation of Special Education and Early Intervention Administrators (ALN #84.325D) (3.75M awarded).
- Zhang, D, Wei. S., Powell, A. & Maher, C. (PI, 2025-2027). *AI based platform for struggling students' math problem solving during Computer-based assessment*. Rutgers Research Council. (15K awarded).
- Zhang, D., Li, M. & Deng, D (PI, 2025). *Visual Translator (VT): Describing Visual Features for Error Diagnosis*. Jaffe Foundation. (56K awarded).
- Liu, M., & **Zhang, D.** (2024 – 2026, Co-PI). *A Human- and Computer-Interpretable Automatic Grader for Word Problems in Engineering Disciplines*. OVPR Seed Program, Rutgers University. (\$45K awarded).
- Zhang, D., Li, M. & Deng D (2023-2024, PI). *Automated Classification of Student Problem-Solving Style in Representing Fractions with a Number Line*. Jaffe Foundation. (127K awarded).
- Lu, W. & **Zhang, D.** (2022-2025, Co-PI). *Internet Assisted Career-Oriented Soft-Skills Training for Transition Age Youth: A Randomized Controlled Trial*. NIDILRR Field Initiated Projects Research (600K awarded)
- Zhang, D.** (2018). *Making the Concept of Units Meaningful to Students with Mathematics Difficulties: Building a Path of Understanding from Whole Number Multiplicative Reasoning to Fractions and Ratios*. University Research Council at Rutgers University (\$4000 awarded)
- Zhang, D.** (2017). *The hidden mathematics learning difficulties in Asian American students under the model minority myth*. P.Y. Chou Foundation (\$5000 awarded)
- Zhang, D.** (2016). *Strategic Development for Middle Schoolers Struggling with Using Number Lines to Solve Fraction Problems: Assessment and Intervention*. Spencer Postdoc Fellowship (\$70,000 awarded).
- Zhang, D.** (2015). *Common Core State Standards in mathematics vs. National Mathematics Education Standards in top achieving Asian countries/areas*. University Research Council at Rutgers University. (\$1700).
- Zhang, D.** (2014). *An examination of teachers' career intentions to pursue special education careers*. University Research Council at Rutgers University. (\$800).
- Zhang, D.** & Stecker, P. (2012). *Progress monitoring on students' fraction strategic development for middle school students with mathematics disabilities*. University Research Grant Committee, Clemson University, Clemson, SC. (\$8405).
- Xin, Y. P. & **Zhang, D.** (2009). *Transition from intuitive to advanced strategies in multiplicative reasoning for students with math learning disabilities*. Purdue Research Foundation, Purdue University, West Lafayette, IN. (\$16,795).
- Xin, Y. P. & **Zhang, D.** (2008). *Key-Math and PPVT assessment instruments in undergraduate special education assessment courses*. Undergraduate Instructional Equipment Program, Purdue University. (\$1008).
- Zhang, D.,** & Xin, Y. P. (2009). *Why do they fall behind and how to make them progress? Transition from intuitive to advanced strategies in multiplicative reasoning for students with math difficulties*. Dean's Graduate Student Support Program Award, College of Education, Purdue University, West Lafayette, IN.(\$200).
- Zhang, D.,** & Xin, Y. P. (2008). *A comparison study for students with and without learning*

*disabilities in multiplicative reasoning*. College of Education Dean's Graduate Student Support Program Award, College of Education, Purdue University, West Lafayette, IN. (\$250).

**Zhang, D.,** & Xin, Y. P. (2006). *Algebra interventions for students with learning disabilities: A meta-analysis*. Graduate Student Support Program Award. College of Education, Purdue University, West Lafayette, IN. (\$410).

## PUBLICATIONS

### *Published Papers in Peer Reviewed Journals*

Zhang, D., Wang, Z., \* & Li, M. (in review). Visual translator: bridging students' handwritten solutions and automatic diagnosis of students' use of number lines to solve fraction problems. *Educational Science*.

Jin, Z.\*, Zhang, D. & Liu, M. (in review). Bridging students' learning challenges and interventions: A systematic review of Civil Engineering education research. *Journal of Civil Engineering Education*. (\* doctoral student)

Altamirano, C.\* & Zhang, D. (in review). Instructors' competency on teaching developmental mathematics to college students with mathematics learning difficulties: From students' perspectives.

Alhadi, M.\* & Zhang, D. (2025). Effects of chunking intervention on enhancing geometry performance in high school students with mathematics learning difficulties. *Learning Disability Quarterly*.

Liu, C.\*, **Zhang, D.**, Pandolpho, M\*, & Yi, J\*. (2023). The effects of principled digitalized interactive item components on geometry assessment in students with mathematics difficulties: A preliminary investigation. *Assessment for Effective Intervention*, 49(1), 29-40. (\* doctoral student/undergraduate research assistants)

Altamirano, C.\* & **Zhang, D.** (2023). A comparison of teaching efficacy between paraprofessionals and special education teachers working with special education students. (\* doctoral student). *Journal of American Academy of Special Education Professionals*, 4, 169-184.

Alhadi, M.\*, **Zhang, D.**, Wang, T. & Maher, C. (2023). Digitalized Interactive Item Components in Computer-Based-Assessment in mathematics for K12 Students: A research synthesis. (\* doctoral student). *Computers in the Schools*, 40(1), 56-84.

Zhang, D., & Siegler, R. (2022). Rational numbers, fractions, textbook suitability. *Current Opinion in Behavioral Sciences*, 47.

Greenstein, S. & **Zhang, D.** (2022). Understanding, honoring, and enabling the mathematical participation of students with disabilities through research at the intersection of special education and mathematics education. *The Journal of Mathematical Behaviors*. 65, DOI:10.1016/j.jmathb.2021.100919

Karpova, N\*, **Zhang, D.**, Beckwith, M, Bennett, D., & Lewis, M. (2021). Executive function in early adolescence as a function of environmental risk, prenatal cocaine exposure, and child sex. (\* doctoral student). *Neurotoxicology and Teratology*, 88. DOI:10.1016/j.ntt.2021.107036 (\* graduate student)

Mielicki, M. K., Fitzsimmons, C. J., Woodbury L., H., Marshal H., **Zhang, D.**, Rivera, F. D., & Thompson, C. A. (2021). Effects of figural and numerical presentation formats on growing pattern performance. *Journal of Numerical Cognition*. 23. 125-155.

- Zhang, D., & Rivera, F. (2021). Predetermined accommodations with a standardized testing protocol: Examining two accommodation supports for developing fraction thinking in students with difficulties in mathematics. *The Journal of Mathematical Behaviors*.  
<https://doi.org/10.1016/j.jmathb.2021.100861>
- Zhang, D. (2021). Teaching geometry to students with learning disabilities. *Learning Disability Quarterly*, 44(1), 4-10.
- Zhang, D., Indyk, A., & Greenstein, S. (2021). Effects of schematic chunking on enhancing geometry performance in students with math difficulties and students at risk of math failure. *Learning Disability Quarterly*, 44(2), 82-95.
- Chen, J., Li, L., & **Zhang, D.** (2021). Students with specific difficulties in geometry: exploring the Timss 2011 data with plausible values and latent class analysis. *Learning Disability Quarterly*, 44 (1), 11-22.
- Ding, Y., **Zhang, D.**, Liu, R.-D., Wang, J., & Xu, L. (2021). Effect of automaticity on mental addition in Chinese children: The moderating role of working memory. *Journal of Experimental Education*, 89(1), 33-53.
- Zhang, D., Whitford, D., Hsu, H., & Wang, Y. (2020). Soft and hard variables in determining college students' intentions and student teachers' concrete decisions to pursue a special education career. *Journal of Research in Special Educational Needs*,  
<https://doi.org/10.1111/1471-3802.12484>
- Zhang, D., Wang, Q., Stegall, J. B., Losinski, M., & Katsiyannis, A. (2018). The construction and initial validation of the special education teaching efficacy scale. *Remedial and Special Education*, 39(1), 39-52.
- Whitford, D., **Zhang, D.** & Katsiyannis, A. (2018). Traditional versus alternative teacher preparation programs: A meta-analysis. *The Journal of Child and Family Studies*, 27(3), 671-685.
- Katsiyannis, A., Whitford, D.K., **Zhang, D.**, & Gage, N. (2018). Adult recidivism in United States: A meta-analysis 1994-2015. *The Journal of Child and Family Studies*, 27(3), 686-696.
- Zhang, D., Stecker, P.M., & Beqiri, K. (2017). Understanding the faulty strategies in estimating fractions on number lines among students with and without mathematics disabilities. *Learning Disability Quarterly*, 40(4), 225-236
- Zhang, D. (2017). Effects of visual working memory training and direct instruction on geometry problem solving in college students with geometry difficulties. *Learning disabilities: A Contemporary Journal*, 15(1), 99-120.
- Zhang, D., Ding, Y., Lee, S., & Chen, J. (2017). Strategic development of multiplication problem solving: Patterns of students' strategy choices. *The Journal of Educational Research*, 110(2), 159-170.
- Ding, Y., Liu, R.-D., Xu, L., Wang, J., & **Zhang, D.** (2017). Working memory load and automaticity in relation to mental multiplication. *The Journal of Educational Research*, 110(5), 554-564.
- Bergstrom, C\*. & **Zhang, D.** (2016). Geometry interventions for K-12 students with and without disabilities: A research synthesis. *International Journal of Educational Research*, 80, 134-154.  
(\* graduate student)
- Zhang, D., Stecker, P.M., Huckabee, S., & Miller, R. (2016). Students' strategic development for middle school students struggling with fractions: Assessment and intervention. *The Journal of Learning Disabilities*, 46(5), 1-17.
- Chen, J., **Zhang, D.**, & Choi, J. (2015). Estimation of the latent mediated effect with ordinal data using the limited-information and Bayesian full-information approaches. *Behavior Research*

*Methods*, 47(4), 1260-73.

- Liu, R.-D., Ding, Y., Gao, B.-C., & **Zhang, D.** (2015). The relations between number property strategies, working memory, and multiplication in elementary students. *The Journal of Experimental Education*, 83(3), 319-343.
- Ding, Y., Liu, R.-D., McBride, C., & **Zhang, D.** (2015). Pinyin invented spelling in Mandarin Chinese-speaking children with and without reading difficulties. *The Journal of Learning Disabilities*, 48(6), 635-645.
- Liu, R.-D., Ding, Y., Zong, M., & **Zhang, D.** (2014). Concept development of decimals in elementary students: A conceptual change approach. *School Science and Mathematics*, 114(7), 326-338.
- Zhang, D., Wang, Q., Ding, Y., & Liu, J. (2014). Testing accommodation or modification? The effects of integrated object representation on enhancing geometry performance in children with and without geometry difficulties. *The Journal of Learning Disabilities*, 47(6), 569-583.
- Zhang, D., Ding, Y., Barrett, E.D., Xin, Y. P., & Liu, R.-D. (2014). A comparison of strategic development of multiplication skills in low-, average- and high- achieving students. *The European Journal of Psychology of Education*, 29(2), 195-214.
- Barrett, D. E., Katsiyannis, A., Zhang, D., & **Zhang, D.** (2014). A structural equation modeling analysis of influences on juvenile delinquency. *Behavioral Disorders*, 39(3), 113-127.
- Barrett, D. E., Katsiyannis, A., Zhang, D., & **Zhang, D.** (2014). Delinquency and recidivism: A multi-cohort, matched-control study of the role of early adverse experiences, mental health problems and disabilities. *The Journal of Emotional and Behavioral Disorder*, 22(1), 3 – 15.
- Zhang, D., Wang, Q., Losinski, M., & Katsiyannis, A. (2014). An examination of pre-service teachers' career intentions to pursue careers in special education. *The Journal of Teacher Education*, 65(2), 165-171.
- Zhang, D., Xin, Y., Harris, K., & Ding, Y. (2014). Improving multiplication strategic development in children with math difficulties. *Learning Disability Quarterly*, 37(1), 15-30.
- Ding, Y., Yang, L.-Y., Guo, J.-P., **Zhang, D.**, Ning, H., & Richman, L. C. (2013). Rapid automatized naming and immediate memory functions in Chinese children who read English as a second language. *The Journal of Learning Disabilities*, 46(4), 347 – 362.
- Zhang, D., Xin, Y. P., & Si, L. (2013). Transition from intuitive to advanced strategies in multiplicative reasoning for students with math disabilities. *The Journal of Special Education*, 47(1), 50-64.
- Zhang, D., Ding, Y., Stegall, J., & Mo, L. (2012). The effects of visual-chunking-representation accommodation on geometry testing in students with math disabilities. *Learning Disability Research and Practice*, 27(4), 167-177.
- Zhang, D., & Xin, Y. P. (2012). A follow-up meta-analysis of word-problem-solving interventions for students with math learning problems. *The Journal of Educational Research*, 105(5), 303-318.
- Adedokun, O., **Zhang, D.**, Parker, L., Bessenbacher, A., Childress, A., & Burgess, W. (2012). Understanding how undergraduate research experiences influence student aspirations for research careers and graduate education. *Journal of College Science Teaching*, 42(1), 76-84.
- Xin, Y. P., Si, L., Hord, C., **Zhang, D.**, Cetintas, S., & Park, J. (2012). Conceptual Model-Based Problem Solving that facilitates algebra readiness: An exploratory study with computer-assisted instruction. *Learning Disabilities: A Multidisciplinary Journal*, 18(2), 71-85.

- Xin, Y. P., **Zhang, D.**, Park, J., Whipple, A., Tom, K., & Si, L. (2011). A comparison of two mathematics problem-solving strategies: Facilitate algebra-readiness. *The Journal of Educational Research*, 104(6), 381-395.
- Taylor, R. P., Ding, Y., Felt, D., & **Zhang, D.** (2011). Effects of tier-1 intervention on letter-sound correspondence in a response-to-intervention model in first graders. *School Psychology Forum: Research in Practice*, 5(2), 54-73.
- Cetintas, S., Si, L., Xin, Y. P., **Zhang, D.**, Park, J.Y., & Tzur, R. (2010). A joint probabilistic classification model of relevant and irrelevant sentences in mathematical word problems. *The Journal of Educational Data Mining*, 2(1), 83-101.
- Xin, Y. P., & **Zhang, D.** (2009). Exploring a conceptual model-based approach to teaching situated word problems. *The Journal of Educational Research*, 102(6), 427-441.

### **Book Chapters**

- Zhang, D., Maher, C. & Wilkinson, L. (2022): What is meaningful assessment? Xin, Y., Tzur, R. & Thouless, H. (Eds.) *Enabling Mathematics Learning of Struggling Students*. Springer.
- Whitford, D., **Zhang, D.** & Katsyannis, A. (2020). Academic achievement of students taught by teachers from differing preparation programs. In C.A. Lubienski and T. J. Brewer (Eds.), *Becoming a Teacher in an Age of Reform: Global Lessons for Teacher Preparation and the Teaching Profession*. New York, NY: Teachers College Press.
- Zhang, D. & Ding, Y. (in press). Evidence based interventions for students with mathematics learning difficulties. In W. S. MacAllister & M. Vasserman (Eds.), *The neuropsychology of learning disorders: A handbook for the multi-disciplinary team*. New York: Springer.
- Ding Y., & **Zhang, D.** (2014). Developmental and cultural perspectives of social and emotional development and its relation to school success. In C. Zhang, C. R. McCray, & S.-J. Cho (Eds.), *Using positive behavioral supports for promoting school success from early childhood to high school for culturally and linguistically diverse students: Practices and policies*. New York, NY: Peter Lang Publishing Group. Pp.25-44.
- Liu, R-d, Ding, Y., Zong, M. & **Zhang, D.** (2015). Effect of an intervention on conceptual change of decimals in Chinese elementary students: A problem-based learning approach. J. A. Middleton et al. (Eds.), *Large-scale studies in mathematics education*, Part of the series *Research in Mathematics Education*. Switzerland: Springer International Publishing.pp.235-263

### **Published Papers in Non-Peer-Reviewed Journals**

- Malasig, J. A., & **Zhang, D.** (2016, invited). Mathematics instruction for students with visual impairments: What is there and where can we go. *Visual Impairment and Deafblind Education Quarterly*, 61(2), 60-68.
- Zhang, D.** & Ding, Y. (2014, invited). Effect of auditory working memory training in students with visual impairments on mathematical problem solving. *Division on Visual Impairments Quarterly*, 59(3), 40-43.
- Jin, H., Wen, H., **Zhang, D.**, Lin, D., Zhu, H., He, X., & Mo, L. (2010). Reading disabilities of Chinese elementary school students: beyond the phonological deficits of single-character identification. *The International Journal of Special Education*, 2, 1-7.

### **Published Papers in Peer-Reviewed Proceedings**

- Wang, Z\*, Zhang, D., Li, M. & Tan, Y. (2025). Automated Diagnosis of Students' Number Line Strategies for Fractions. To appear in Proceedings of the *Artificial Intelligence in Measurement and Education Conference*.

- Cetintas, S., Si, L., Xin, Y. P., Hord, C. & **Zhang, D.** (2009). Learning to identify students' off-task behavior in intelligent tutoring systems. In V. Dimitrova, R. Mizoguchi, B. du Boulay, & A. Graesser (Eds.), *Proceedings of the 14<sup>th</sup> International Conference on Artificial Intelligence in Education* (pp. 701-703). Amsterdam, the Netherlands: IOS Press.
- Cetintas, S., Si, L., Xin, Y. P., **Zhang, D.**, & Park, J. (2009). Automatic text classification of mathematical word problems. In H.C. Lane & H.W. Guesgen (Eds.), *Proceedings of the 22<sup>nd</sup> International FLAIRS Conference* (pp. 27-32). Sanibel Island, Florida, AAAI Press.
- Woodward, J., Kenney, R., **Zhang, D.**, Guebert, A., Cetintas, S., Tzur, R., & Xin, Y. P. (2009). Conceptually based task design: Megan's progress to the anticipatory stage of multiplicative double counting (mDC). In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.), *Proceedings of the 31<sup>st</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1378-1385). Atlanta, GA: Georgia State University.
- Xin, Y. P., Tzur, R., Si, L., **Zhang, D.**, Hord, C., Luo, W., & Cetintas, S. (2009). Interweaving tasks and conceptions to promote multiplicative reasoning in students with learning disabilities in mathematics (mDC). In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.), *Proceedings of the 31<sup>st</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 354-362). Atlanta, GA: Georgia State University.
- Zhang, D.**, Xin, Y. P., Tzur, R., Hord, C., Luo, S., & Cetintas, S. (2009). How do changes happen? Transition from intuitive to advanced strategies in multiplicative reasoning for students with math learning disabilities. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.), *Proceedings of the 31<sup>st</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 718-725). Atlanta, GA: Georgia State University.

#### **Other Publications**

- Zhang, D., Lane, D., & Jez, R. J. (2024). Learning About Inclusive Education in the Global Context: Voices from the Field. *Division of International Special Education Brief*, 1-4.
- Quezada, S., Jez, R. J., Rebekka J., & Zhang, D. (2024). Global Research Showcase: Voices from the Field. *Division of International Special Education Brief*, 1-4.

#### **Papers Submitted for Publication or In Progress**

- Zhang, D., Maher, C. A., Jin, Z. & Liu, C. (manuscript in revisions). From fractions to ratios and proportions: Effects of flexible vs. fixed representations of referent units for students with math difficulties.
- Altamirano, C.C., Zhang, D., & Maher, C. (Manuscript in preparation). How did the achievement gap disappear? The influence of problem context on graph comprehension in college students with difficulties in learning mathematics.
- Zhang, D., Siegler, S. & Maher, C. (Manuscript in preparation). Micro genetic approach: Bridging the single-subject design in special education and teaching experiment in math education.
- Zhang, D., Indyk, A., Thompson, C., Rivera, F. & Alhadi, M. (manuscript in preparation) Are visual representations helpful? A comparison of performance on growing patterning problem solving between numerical, table and figural representations in students with mathematics difficulties.
- Zhang, D. (manuscript preparation) Why is geometry so hard? An examination of geometry problem solving strategies and error patterns in high schoolers with math difficulties.

#### **INVITED RESEACH TALKS**

- Zhang, D. (Scheduled Nov. 18, 2025). *Rapid Automatic Naming (RAN) and Students with Learning Disabilities*. RuCCS Graduate Prosem. Department of Psychology, Rutgers University, New Brunswick.
- Zhang, D. (March 18, 2025). *Mathematics interventions for special education students*. The Association of Math Teachers of NJ Special Education Intervention Conference. New Brunswick, NJ.
- Zhang, D. (Jan 30, 2025). *AI tools for young children*. Council of Chief State School Officers. Washington, D.C.
- Zhang, D. (Scheduled on Oct 08, 2024). *What AI do they need, and what concerns do they have? Insights from early childhood educators' discussions on Twitter and Facebook*. AI and Early Childhood Education: Helping Policy Makers Get Ahead of the Curve. The National Association of State Leaders in Early Education. Indianapolis IN,
- Zhang, D. (Scheduled on Sep 23, 2024). *AI and mathematics Education*. Special Education Doctoral Seminar, Department of Educational Studies, Purdue University, West Lafayette, IN.
- Zhang, D. (June 13, 2024). *Special Education, mathematics education, and disability studies: Understanding mathematics learning disabilities from different theoretical perspectives*. School of Psychology, South China Normal University, Guangzhou, China.
- Zhang, D. (May, 2024). *Evidence-based interventions for students with mathematics learning disabilities*. Graduate School of Education, Fordham University, New York.
- Zhang, D. (March, 2024). *Comparative research on K12 education between China and the U.S.: STEM education and special education*. Department of Curriculum and Instruction. Monmouth University.
- Zhang, D. (April, 2024). *Chunking strategy for high school students struggling in geometry*. Special Education Doctoral Student Seminar, University of Texas, Austin.
- Zhang, D. (April, 2022). *Geometry learning and instruction in students with learning difficulties in mathematics*. Special Education Doctoral Student Seminar, University of Texas, Austin.
- Zhang, D. (December 2021). *Students with learning disabilities in mathematics*. Invited presentation at the City College of New York, New York.
- Zhang, D. (Feb, 2021). *Effects of schematic chunking on enhancing geometry performance in students with mathematics learning difficulties and students at risk of math failure*. Invited research talk at School of Education, Boston College, MA.
- Zhang, D. (October, 2020). *Effects of schematic chunking on enhancing geometry performance in students with learning difficulties in mathematics*. Invited lecture in research colloquium in the Department of Pediatrics, Rutgers University.
- Zhang, D. (Decembers 2019). *Making the Concept of Units Meaningful to Students with Mathematics Difficulties: Building a Path of Understanding from Whole Number Multiplicative Reasoning to Fractions and Ratios*. Brownbag Seminar Graduate School of Education, Rutgers University.
- Zhang, D. (October, 2019). *Mathematics Intervention for Students with Math Learning Difficulties*. (Oct 2019). School Psychology Doctoral Seminar. Graduate School of Applied and Professional Psychology, Rutgers University, New Brunswick.



- Zhang, D. (June 2018). *Special Education and teacher education in the U.S.* Invited oral presentation at Teacher Education Conference, Shanxi Normal University, Linfen, China.
- Zhang, D. (November, 2017). *Helping Students with Mathematics Difficulties to Learn Fractions: Focusing on the Concept of Units.* Invited oral presentation at the Spencer Foundation 2017 Fall Retreat, Washington, D.C.
- Zhang, D. (June, 2017). *Traditional versus alternative special education teacher preparation programs in the United States: A Review of literature.* Invited research talk at the Special Education Research Seminar, Beijing Normal University, Beijing, China.
- Zhang, D. (April, 2017). *Helping students with mathematics difficulties to learn fractions: Focusing on the concept of units.* Invited early career scholar poster presentation at AERA, San Antonio, Texas, U.S.
- Zhang, D. (April, 2017). *Making the concept of units meaningful to students with mathematics learning disabilities: Building a path of understanding from multiplicative reasoning to fractions.* Invited research talk in research colloquium at Teachers College, Columbia University, NY, U.S.
- Zhang, D. (June, 2015). *Teaching students with math learning difficulties.* Invited talk at the Disability Center, Bergen County Communication College, NJ, U.S.
- Zhang, D. (October 2013). *Testing accommodation or modification? The effects of integrated object representation on enhancing geometry performance in children with and without geometry difficulties.* Invited talk in Brown Bag Seminar, Graduate School of Education, Rutgers University, NJ, U.S.
- Zhang, D. (October, 2012). *Meta-analysis research in special education.* Invited talk in Brown Bag Seminar, the *Educational Statistics and Measurement Colloquium* of Graduate School of Education, Rutgers University, NJ, U.S.

## CONFERENCE PRESENTATIONS

- Jin, Z.\* , **Zhang, D.** & Liu, M. (in review). *Bridging students' learning challenges and interventions: A systematic review of Civil Engineering education research.* Submitted to AERA, Los Angeles, CA.
- Ma, J.\* & **Zhang., D.** (in review). *K-12 teachers' needs, experiences, and attitudes with ai use in education: evidence from Facebook discussions.* Submitted to AERA, Los Angeles, CA.
- Liu, C., **Zhang, D.** & Wei, S., (Feb 2026). *Personalized Interactive Cognitive Scaffolding (PICS) for high school students struggling with mathematics in computer-based assessment.* Accepted by Pacific Coast Research Conference (PCRC), Long Island, CA.
- Zhang, D., Wang, Z., Li, M., & Tao, Y. (Oct, 2025). *Automatic diagnosis of students' use of number lines to solve fraction problems.* Artificial Intelligence in Measurement and Education. Pittsburgh, PA.
- Yamane, K\*., **Zhang, D.**, Lin-Siegler, X., Peterson, P., & Siegler, R. (2025, May). *Behavior speaks: Developing peer-based behavioral scales for employee evaluation* [Poster presentation]. Association for Psychological Science Annual Convention, Washington, DC.

- Zhang, D., Wang, Z., & Li, M (March, 2025). *Automated classification of student problem-solving style in representing fractions with a number line*. CEC 2025, Baltimore.
- Altamirano, C.\* & **Zhang, D.** (March, 2025). *Graph Comprehension among Developmental Mathematics Students through a Sociocultural Perspective*. CEC 2025, Baltimore.
- Perchinske, M.\* & **Zhang, D.** (March, 2025). *Career and technical education in mathematics for students with disabilities: What is there and where can we go*. CEC, 2025, Baltimore.
- Karakashian, A.,\* **Zhang, D.**, Lu, Q\*., Wang, Z.,\* Li, M. & Deng, D. (March, 2025). *Transformer approach to fraction recognition on written responses in students with and without disabilities*. Council for Exceptional Children, 2025, Baltimore.
- Al Hadi, M.\* & **Zhang, D.** (April, 2024). *Effects of chunking intervention on enhancing geometry performance in high school students with mathematics difficulties*. AERA, 2024, Philadelphia.
- Liu, C.\*, **Zhang, D.** (April, 2024). *Digital Test Accommodations on Geometry Computer-based Assessment in students with mathematics disabilities*. (\* doctoral student). AERA, 2024, Philadelphia.
- Lu, Q., Wang, Z., **Zhang, D.**, Li, M., & Deng, D. (Dec. 2023). *A Comparison of the Efficiency of Two Image Processing Models on Identifying Students' Written Solutions to Fraction Problems*. AI Education Summit. Notre Dame, IN.
- Zhang, D., Li, M., Wang, Z., Lu Q., & Deng, D. (Dec 2023). *Automatic screening and diagnosis of students' use of number lines to solve fraction problems*. AI Education Summit. Notre Dame, IN.
- Liu, M. & **Zhang, D.** (June, 2023). *A Human-interpretable automatic grader for word problems in engineering disciplines*. Research Ideation Forum on the Future of Learning & Work, Rutgers University, New Brunswick, NJ
- Cristhian A\* & **Zhang, D.** (March, 2023) *Students perceptions of their college instructors' teaching efficacy*. CEC 2023 Convention and Expo, Louisville, Kentucky.
- Zhang, D, Thompson, C., Rivera F., Indyk, A & Alhadi M. (Feb, 2023). *Is visual representation helpful? A comparison of performance on growing patterning problem solving with three testing presentation formats in students with mathematics difficulties*. Pacific Coast Research Conference (PCRC), Coronado, CA.
- Yi, J. & **Zhang, D.** (Feb, 2023). *Why is geometry so hard? An examination of geometry problem solving strategies and error patterns in high schoolers with math difficulties*. Pacific Coast Research Conference (PCRC), Coronado, CA.
- Zhang, D., Liu, C., & Harris, K. (Feb 2022). *Unit and unit rate: Fixed versus varying representations of Units among students with mathematics difficulties*. Pacific Coast Research Conference (PCRC), Coronado, CA.
- Liu, C.\*, **Zhang, D.**, Pandolpho, M\*, & Wang, T. (Feb 2022). *The effects of principled Digitalized Interactive Item Components on geometry assessment in students with mathematics disabilities*. (\* doctoral student/undergraduate research assistant). Pacific Coast Research Conference (PCRC), Coronado, CA.
- Zhang, D., (June, 2021). *Visual chunking: Testing accommodation for students with learning difficulties in geometry*. Invited presentation at Educational Accommodations: Future Directions. Virtual research conference organized by Profs. Lovett & Harrison.
- Altamirano, C.\*, & **Zhang, D.** (Feb, 2021). *A comparison of teaching efficacy between paraprofessionals and special education teachers working with special education students*. (\* doctoral student). Council for Exceptional Children (CEC), virtual conference.

- Zhang, D.** (October, 2020). *Effects of schematic chunking on enhancing geometry performance in students with mathematics learning difficulties and students at risk of math failure*. Panel presented at Council of Learning Disabilities. Virtual Conference.
- Zhang, D.,** Chen, J., & Li, L. (April, 2020). *Students with specific difficulties in geometry: Exploring the TIMSS 2011 Data*. To be presented at the American Educational Research Association Annual (AERA) Convention, San Francisco, CA. (Virtual Conference)
- Zhang, D.,** Indyk, A., & Greenstein, S. (April, 2020). *Effects of schematic chunking accommodation on enhancing geometry performance in students with math difficulties and students at risk of math failure*. Presented at the American Educational Research Association Annual (AERA) Convention, San Francisco, CA. (Virtual Conference)
- Zhang, D.,** Li, P.\*, Di Dolce, B.\*, Corron, K.\*, & Quirinale, E. (April 2018). *Effects of unit coordination instruction on learning fractions in students with math difficulties*. Presented at the American Educational Research Association Annual (AERA) Convention, NYC, NY.
- Zhang, D.,** Li, P.\*, Di Dolce, B.\*, & Liu, R. (April 2018). *An examination of two accommodation methods for improving fraction performance in students with math difficulties*. American Educational Research Association Annual (AERA) Convention, NYC, NY.
- Zhang, G.\*, **Zhang, D.,** Ding, Y., & Powell, S.\* (Feb 2018). *Effects of number line representation task assignments on students' negative number problems solving performance in Students with varying abilities*. Council for Exceptional Children (CEC), Tampa, FL. (\* graduate research assistant).
- Zhang, D.,** Zhang, G., Powell, S.\*, & Ding, Yi. (Feb 2018). *Comparing the strategies and error patterns in decimal problem solving between students with and without mathematics difficulties*. Council for Exceptional Children (CEC), Tampa, FL. (\* graduate research assistant).
- Zhang, D.** (2017, April). *Soft and hard variables in determining college students' intentions and education majors' concrete decisions to pursue a special education career*. Lecture presented at Council for Exceptional Children (CEC), Boston, MA.
- Zhang, D.** (2017, April). *Effect of auditory working memory training in students with visual impairment*. Lecture presented at CEC, Boston, MA.
- Bergstrom, C.\* & **Zhang, D.** (2017, April). *Geometry interventions for k-12 students with and without disabilities: A research synthesis*. Poster presented at Council for Exceptional Children (CEC), Boston, MA. (\* graduate research assistant)
- Stecker, P. M. & **Zhang, D.** (2017, April). *Understanding faulty strategies among middle schoolers when estimating fractions on number lines*. Poster presented at CEC, Boston, MA
- Zhang, D.** & Stecker, P. M. (2017, February). *Estimating fractions on number lines: Strategies of students with and without disabilities*. Poster presented at Pacific Coast Research Conference (PCRC), Coronado, CA.
- Zhang, D.** (2017, February). *Visual working memory training and direct instruction for students with geometry difficulties*. Poster presented at Pacific Coast Research Conference (PCRC), Coronado, CA.
- Liu, R.-D., **Zhang, D.,** Xu, L., & Wang, J. (2016, April). *Working memory load and automaticity in relation to mental multiplication*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Washington D.C.

- Malasig, A. J.\*, & **Zhang D.** (2016, April). *A review of literature: Mathematics instruction for students with visual impairment*. Poster presented at the Council for Exceptional Children (CEC), St. Louis, MO. (\*undergraduate student assistant).
- Zhang, D.** & Stecker, P. M. (2016, April). *Integrating constructive task assignments to explicit strategy instruction: Helping middle schoolers struggling with mathematics to solve fraction problems*. Poster presented at the Council for Exceptional Children (CEC), St. Louis, MO.
- Zhang, D.** & Stecker, P. M. (2016, February). *Strategic development for middle school students struggling with fractions: Implications for intervention*. Poster Presented at Pacific Coast Research Conference (PCRC), Coronado, CA.
- Zhang, D.**, Stecker, P.M., Huckabee, S.\*, & Miller, R.\* (2015, April). *Middle schoolers struggling in mathematics: Strategic patterns used to solve fraction problems*. Poster presented Council for Exceptional Children (CEC), San Diego, CA. (\*doctoral students).
- Zhang, D.**, Zorine, D.\* & Carey, D.\* (2015, April). *Effects of visual working memory training and direct instruction in students with geometry difficulties*. Paper presented at Council for Exceptional Children (CEC), San Diego, CA. (\* undergraduate research assistants)
- Liu, R.-D., Ding, Y., **Zhang, D.**, Wang, J., & Xu, L., (2015, April). *Working memory in relation to mental multiplication in elementary students*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Chicago, IL.
- Zhang, D.** (2014, April). *Effect of auditory working memory training in students with visual impairment*. Council for Exceptional Children (CEC), Philadelphia, PA.
- Zhang, D.**, Wang, Q., Stegall, J. B.\*, Losinski, M.\* (2014, April). *The construction and initial validation of the special education teaching efficacy scale*. Council for Exceptional Children (CEC), Philadelphia, PA. (\*doctoral student research assistants).
- Zhang, D.**, & Ding, Y. (2014, April). *Effect of visual chunking intervention in students with geometry difficulties*. Council for Exceptional Children (CEC), Philadelphia, PA.
- Zhang, D.**, Ding, Y., & Lee, S.\* (2014, April). *Strategic developmental levels in multiplication: patterns of students' strategy choices*. The American Educational Research Association Annual Convention, Philadelphia, PA. (\*doctoral research assistant).
- Zhang, D.**, Ding, Y., Barrett, E.D. (2014, April). *A comparison of strategic development for multiplication problem solving in low-, average-, and high-achieving students*. The American Educational Research Association Annual (AERA) Convention, Philadelphia, PA.
- Liu, R.-D., Ding, Y., Gao, B.-C., & **Zhang, D.** (2014, April). *The roles of working memory and problem difficulty in multiplication in elementary students*. The American Educational Research Association Annual (AERA) Convention, Philadelphia, PA.
- Ding, Y., **Zhang, D.**, Laux, J., & Salyers, K. (2014, February). *Congruence and achievement-Vocational personality in relation to professional development*. The National Association of School Psychologists Annual Convention, Washington D.C.
- Ding, Y., Wang, C., **Zhang, D.**, & Richman, L. (2014, February). *Social problems in children with ADHD: Linking assessment to intervention*. The National Association of School Psychologists Annual Convention, Washington D.C.
- Stegall, J. B., Butori, T., & **Zhang, D.** (2013, November). *Extending content in an undergraduate introduction to exceptionalities course through technology*. The annual convention of the Council for Exceptional Children, Teacher Education Division (TED), Fort Lauderdale, FL.
- Ding, Y., **Zhang, D.**, McBride, C., & Liu, R.-D. (2013, July). *Analytical pinyin skills in Chinese*

- Mandarin speaking children*. The Society of Scientific Study of Reading (SSSR) Annual Convention, Hong Kong.
- Zhang, D.**, Wang, Q., Losinski, M.\*, Stegall, J. \* & Katsiyannis, A. (2013, May). *An examination of pre-service teachers' career intentions in pursuing special education careers*. The American Educational Research Association Annual (AERA) Convention, San Francisco, CA.
- Zhang, D.**, Wang, Q., Losinski, M.\*, & Stegall, J.\* (2013, April). *Pre-service teachers' career intentions in pursuing special education careers*. Council for Exceptional Children (CEC), San Antonio, TX. (\*doctoral students).
- Zhang, D.**, Wang, Q., Ding, Y., & Liu, J. (2013, April). *Testing accommodation or modification? The effects of visual chunking on enhancing visual imagery abilities in children with and without math disabilities*. Council for Exceptional Children (CEC) annual convention, San Antonio, TX.
- Ding, Y., **Zhang, D.**, Cho, S.-J., & Kozelka, S. (2013, February). *Train bilingual school psychologists to serve in culturally diverse communities*. The National Association of School Psychologists (NASP) Annual Convention, Seattle, WA.
- Zhang, D.**, Xin, Y., Harris, K., & Ding, Y. (2012, November). *Improving multiplication strategic development in children with math difficulties*. The Annual Convention of the North America Chapter of the international group for the Psychology of Math Education. Kalamazoo, Michigan.
- Zhang, D.**, Yi Ding., Stegall, J.\* & Harris, K. (2012, April). *The effects of visual chunking on improving visual imagery skills for solving geometry problems in students with math disabilities*. Council for Exceptional Children (CEC) annual convention, Denver, CO. (\*doctoral student research assistant).
- Liu, R., Ding, Y., Zong, M., & **Zhang, D.** (2012, April). *Concept development of decimals in Chinese elementary students: A conceptual change approach*. American Educational Research Association Annual Convention, Vancouver, Canada.
- Liu, R., Ding, Y., Zong, M., & **Zhang, D.** (2012, April). *The effectiveness of problem-based instruction for teaching decimals to Chinese elementary students*. American Educational Research Association (AERA) Annual Convention, Vancouver, Canada.
- Zhang, D.**, Adedokun, O., Parker, L., Childress, A., & Burgess, W. (2011, April). *The effects of undergraduate research experiences on students' aspirations for research careers and graduate education*. American Educational Research Association (AERA) Annual Convention, New Orleans, LA.
- Ding, Y., Liu, R.-D., Zong, M., & **Zhang, D.** (2011, February). *Concept development of decimals in elementary students-Tier-one intervention*. National Association of School Psychologists (NASP) 2011 National Convention, San Francisco, CA.
- Ding, Y., Yang, L.-Y., Guo, J.-P., **Zhang, D.**, Ning, H., & Richman, L. C. (2011, February). *Rapid naming and immediate memory functions in SLL Children*. National Association of School Psychologists (NASP) 2011 National Convention, San Francisco, CA.
- Zhang, D.**, Ding, Y., & Liu, R.-D. (2011, February). *Strategic development of multiplicative reasoning in MLD Students*. National Association of School Psychologists (NASP 2011 National Convention), San Francisco, CA.
- Zhang, D.** & Xin, Y. P. (2010, April). *A follow-up meta-analysis of word problems solving interventions for students with math learning difficulties*. Council for Exceptional Children (CEC) Convention & Expo, Nashville, TN.
- Wendt, O., Schlosser, R., Boesch, M., Chae, S., Tan, M., & **Zhang, D.** (2009, November). *Reporting*

- of treatment integrity in ASHA journals: A systematic review.* The American Speech-Language Hearing Association (ASHA) Convention, New Orleans, LA.
- Woodward, J., Kenney, R., **Zhang, D.**, Guebert, A., Cetintas, S., Tzur, R., & Xin, Y. P. (2009, September). *Conceptually based task design: Megan's progress to the anticipatory stage of multiplicative double counting.* The 31<sup>st</sup> Annual Conference of the North America Chapter of the international group for the Psychology of Math Education, Atlanta, GA.
- Xin, Y. P., Tzur, R., Si, L., **Zhang, D.**, Hord, C., Luo, W., & Cetintas, S. (2009, September). *Interweaving tasks and conceptions to promote multiplicative reasoning in students with learning disabilities in mathematics.* The 31<sup>st</sup> Annual Conference of the North America Chapter of the international group for the Psychology of Math Education, Atlanta, GA.
- Zhang, D.**, Xin, Y. P., Tzur, R., Hord, C., Luo, S., & Cetintas, S. (2009, September). *How do changes happen? Transition from intuitive to advanced strategies in multiplicative reasoning for students with math learning disabilities.* The 31<sup>st</sup> Annual Conference of the North America Chapter of the international group for the Psychology of Math Education, Atlanta, GA.
- Xin, Y. P., **Zhang, D.**, Park, J., Whipple, A., Tom, K., & Si, L. (2009, April). *A comparison of model-based problem solving with multiple strategy instruction on mathematical problem solving.* American Educational Research Association (AERA) Annual Convention, San Diego, CA.
- Zhang, D.**, Xin, Y. P., Luo, Si, Hord, C., & Liu, J. (2009, March). *The developmental pattern of students with math learning disabilities in solving multiplicative problems with various semantic structures.* Third Graduate Student Research Symposium, West Lafayette, IN.
- Zhang, D.** (2008, October). *A comparison of motivation in learning mathematics between Chinese and American middle school students: A research synthesis.* Mid-Western Educational Researcher Association Annual Convention, Columbus, OH.
- Zhang, D.** & Xin, Y. P. (2008, October). *Algebra word problem instruction for students with learning difficulties: A research synthesis.* Mid-Western Educational Researcher Association Annual Convention, Columbus, OH.
- Zhang, D.** & Mo, L. (2008, July). *Paired associated learning skills of children with Chinese dyslexia.* Annual Conference of Society for Scientific Study of Reading (SSSR) Conference, Asheville, NC.
- Xin, Y. P. & **Zhang, D.** (2008, March). *The effect of conceptual model-based problem solving on word problems with various contexts: "Transfer in pieces."* American Educational Research Association (AERA) Annual Convention, New York, NY.
- Zhang, D.** & Xin, Y. P. (2008, March). *A follow-up meta-analysis of word problem solving interventions for students with learning problems.* Sigma Xi Poster Competition, Purdue University, West Lafayette, IN.
- Mo, L., Jin, H., Wen, H., Lin D., & **Zhang, D.** (2005, December). *Different levels of Chinese developmental dyslexia.* The 11<sup>st</sup> International Conference on Processing Chinese and Other East Asian Languages, Hong Kong.
- Zhang, D.** & Wang, L. (2004, August). *Mothers' attitudes to different-aged children in family task oriented play and non-task oriented play.* The 28<sup>th</sup> International Conference of Psychology, Beijing, China.

## MENTORING

### Graduated Doctoral Students (Chair)

Ed.D: Iman Eldessouky, Larisa Skinner, Graduated in May 2023;

Sharlene Laud, Graduated in May 2024.

Shuman Wen, Graduated in Jan 2025.

Henna Taylor (Graduated in May 2025).

Ph.D. Moosa Moosa Alhadi, Graduated in January, 2024

### **Current Doctoral Students (Chair)**

Ph.D. Cristhian Altamirano (dissertation writing), Changyun Liu, Marlene Perchinske, Nadica Javier, Zihui Jin, Joanne Ma.

Ed.D. Cathy Schooley (dissertation proposal defended), Quincey Schenck (dissertation proposal defended), Leisa Walker

### **Doctoral Dissertation Committee Member:**

**Completed:** Olasumbo Oluwalana, Ph.D in Psychometrics, Graduate School of Education, Rutgers University (Chair: Dr. Chia-yi Chiu, May, 2019)

Colleen Oppenzato, Ph.D. in Educational Psychology, Teachers College, Columbia University (Chair: Dr. Robert Siegler, Fall 2023)

Meijia Liu, Ph.D. in Special Education, University of Texas- Austin (Chair: Dr. Diane Bryant, Summer 2021)

Joyce Leslie, Ed.D. in Mathematics Education, Graduate School of Education (Chair: Carolyn Maher; October 2019)

Kara Teehan, Ph.D in Mathematics Education, Mathematics Education, Rutgers University (Chair, Dr. Carolyn Maher).

**In progress:** Brad Poprik, Ed.D candidate, Mathematics Education, Rutgers University (Chair, Dr. Carolyn Maher, proposal passed in spring 2015);

### **Doctoral Qualification Committee (with signed qualification exam):**

Daniel Colaneri, Mathematics Education, Rutgers University (Chair, Dr. Gerald Goldin, Qualification Exam passed in June, 2022)

Gabriella Bussanich, Special Education, (Chair, Dr. Judith Harrison, Qualification Exam in May 2023)

Jianene Meola, Mathematics Education, Rutgers University (Chair, Dr. Carolyn Maher, Qualification Exam passed in Spring, 2022)

Kan Yamane, Educational Psychology, Teachers College, Columbia University (Chair, Dr. Xiaodong Lin)

### **Ed.D. Qualification Exam Reader:**

Two students with names removed (2019), David Antunes (2022), Nicholas Fargion (2022), Theresa Peterford (2022), Debra Cho (24),

**Masters Students** (Adviser) Approximately 20-45 special education master students each year: Rutgers University, 2012-2023.

**AERA Division C Doctoral Student Mentee:** Elizabeth Canning. 2015.

**Aresty Undergraduate Research Assistants:** 3- 8 undergraduate research assistants each year, 2013 - 2024

## UNIVERSITY TEACHING

### Courses Designed or Redesigned:

Teaching Mathematics to Individuals with Special Needs (Clemson University)  
 Assessment and Measurement for Special Educators (Rutgers University)  
 Quantitative Designs for Educational Research (Rutgers University)

### Courses Taught

#### *Rutgers University*

Introduction to Special Education.  
 Current Topics in Special Education.  
 Program Evaluation.  
 Assessment and Measurement for Special Educators.  
 Learning Disabilities.  
 Quantitative Designs for Educational Research.  
 Inquiry 1  
 Byrne Seminar: American College Life for International Students.  
 Byrne Seminar: Transition from High School to College Life.

#### *Clemson University*

EDSP 901. Advanced Research Methods in Educational Studies: Structural Equation Modeling.  
 EDSP 370. Introduction to Special Education.  
 EDSP 822. Teaching Mathematics to Individuals with Special Needs.

#### *Purdue University*

EDPS 364. Practicum in Special Education Assessment.  
 EDPS 362. Classroom Organization and Management.

## PROFESSIONAL ACTIVITIES

### National Academic Service

National Science Foundation – Panelist 2014, 2016  
 Institute of Education Sciences –  
     Served as Panelist for solicited grant proposals (2019, 2020)  
     Served as Reviewer for an unsolicited grant proposals (2021)  
     Served as Reviewer for Educator Practice Guidance WhatwhatsClearningHouse (2020, 2021)  
 Spencer Foundation Dissertation Fellowship Judge, 2023  
 Spencer Foundation Postdoc Fellowship Judge, 2024

### Organization Service

Leadership Development Committee, Council for Exceptional Children (CEC), 2024-2027  
 Co-Chair, Virtual Events Committee, Division of International Special Education & Service, CEC, 2024-  
 Committee Member, Professional Development Committee, Division of International Special Education & Service, CEC, 2024-  
 Reviewer for Leadership Group for CEC Members of Color, Diversity Committee, CEC, 2024  
 Panelist, Educators and Families of Individuals with Disabilities Affinity Group, CEC, March, 2024  
 AERA Division C Doctoral Student Mentoring Seminar - Panelist 2015



## Editorial Service

2024- present. Associate Editor. *Journal of Disability Policy Studies*.

## Editorial Boards

2021- Present. Editorial board member for *Journal of Mathematical Behavior*

2017 - Present. Editorial board member for *Learning Disability Quarterly*

2012 - 2024. Editorial board member for *Journal of Disability Policy Studies*

## Guest Editor of Special Issues

2022 Co-guest Editor. Teaching Students with Mathematics Learning Disabilities: Research at the Intersection of Mathematics Education and Special Education. *The Journal of Mathematical Behavior*.

2021 Guest Editor. Teaching Geometry to Students with Learning Disabilities. *Learning Disability Quarterly*.

## Other Editorial Service

2016 - Article Editor. SAGE open.

Guest reviewer for *Remedial and Special Education*

Guest reviewer for *Exceptional Children*

Guest reviewer for *Assessment for Effective Intervention*

Guest reviewer for *Journal of Research in Mathematics Education*

Guest reviewer for *Educational Psychologist*

Guest reviewer for *School Psychology Quarterly*

Guest reviewer for *Learning and Individual Differences*

Guest reviewer for *The Journal of Teacher Education*

Guest reviewer for *Teacher Education and Special Education*

Guest Reviewer for *Journal of Disability Policy Studies*

Guest reviewer for *Education Science*

Guest reviewer for *Literacy Research Association Yearbook*

Guest reviewer for *Education Research International*

Guest reviewer for the *Journal of Mathematics Education*

Guest reviewer for *the Journal of Mathematical Behavior*

Guest Reviewer for *Plos One*

Guest reviewer for the *Journal of Mid-Western Educational Researcher*

Conference reviewer for 2014 AERA

Conference reviewer for 2015 CEC

Conference reviewer for 2012 Conference of Psychology of Mathematics Education (PME)

Conference reviewer for 2012 National Youth-At-Risk Conference (NYAR)

Conference reviewer for 2008 Conference of Psychology of Mathematics Education (PME)

Conference reviewer for 2008 Conference of Mid-Western Educational Researcher Association

## Community Service

2021 - Member, Board of Trustees. Hatikvah International Charter School, East Brunswick, NJ.

2021, October, Platform host: Adding AAPI Studies to Your School's Curriculum. Webinar Presented to NJ K12 Educators and Parents.

2021, September, Platform host: Adding AAPI Studies to Your School's Curriculum. Webinar Presented to NJ K12 Educators and Parents.

2021, August, Platform host: Adding AAPI Studies to Your School's Curriculum. Webinar Presented to NJ K12 Educators and Parents.

2021, July, Platform host: Adding AAPI Studies to Your School's Curriculum. Webinar Presented to NJ K12 Educators and Parents.

2021, June, Platform host: Adding AAPI Studies to Your School's Curriculum. Webinar Presented to NJ K12 Educators and Parents.

2021, May, Panelist: AAPI Heritage Month Discussion: Ending the Erase of AAPI Stories in K12 Education. Webinar hosted by Hopewell Valley School District and Make Us Visible NJ.

2021, April, Moderator: Confronting and Combating Anti-Asian Sentiment in K-12 Education. Webinar hosted by the Samuel DeWitt Proctor Institute for Leadership, Equity, and Justice, Graduate School of Education, Rutgers University.

2017, June, Speaker: Special Education Services in NJ. Webinar hosted to Chinese American Community.

### **Conference Service**

#### **2024. Reviewer, AERA**

2016, April. Session Chair. *Engagement and persistence in computing disciplines*. SIG-Instructional Technology. American Educational Research Association Annual Meeting, Washington, D.C.

2016, April. Session Chair. *Using NAEP data from a stem perspective*. SIG-NAEP Studies. American Educational Research Association Annual Meeting, Washington, D.C.

2014, April. Session Chair. *NAEP from the student perspective: Examinations of test performance impacts*. American Educational Research Association Annual Meeting, Philadelphia, PA.

2014, April. Session Discussant. *Technology integration in pre-service teacher in pre-service teacher education: Examining tools and technology in preparing to work with students with disabilities*. American Educational Research Association Annual Meeting, Philadelphia, PA.

2010, August. Session Chair & Judge, Symposium for Summer Undergraduate Research Fellowship, Purdue University.

2008, October. Session Discussant. Conference of Mid-Western Educational Researcher Association, Columbus, OH.

### **Workshops**

2018 – 2021 (Feb). Conducted workshops on STEM education to international STEM educators.

2008, June. Conducted workshops for recruiting Asian students to Purdue University, Shanghai Normal University (supported by Dr. Xin, Y. P. with funding from Purdue University).

2008, June. Conducted workshop on *Effective instruction in mathematics: A meta-analysis*, Shanghai Normal University and South China Normal University, China (supported by AIR grant project awarded to Dr. Xin, Y. P. by Purdue University).

### **Local Activities**

PhD Executive Committee Member: 2022 – present: PhD in Education, Graduate School of Education, New Brunswick, NJ.

Academic Standing & Scholarship Committee, 2023 – present, Graduate School of Education, New Brunswick, NJ.

Search Committee Member, 2023-2024. Urban Education & Literacy Education, Graduate School of

Education, New Brunswick, NJ.

Member, Appointment and Promotion Committee, 2024, Social Studies faculty search, Graduate School of Education.

Online Committee Member, 2016 – 2018. Graduate School of Education, Rutgers University, New Brunswick, NJ.

Quantitative Program Taskforce Committee Member, 2022-2023. Graduate School of Education, Rutgers University, New Brunswick, NJ.

Programs Coordinator. 2018 spring, 2020 – 2022. Special Education programs, Graduate School of Education, New Brunswick, NJ.

Advanced Program Teacher Education Committee, 2020 -2022. Graduate School of Education, Search Committee Member, 2022. Urban education: Language Education.

Member, Appointment and Promotion Committee, 2022, Black Studies in Education faculty search, Graduate School of Education.

Member, Appointment and Promotion Committee, 2021, Faculty Application for Promotion to Associate Professor with Tenure, Graduate School of Education.

Member, Appointment and Promotion Committee, 2020, Reappointment of Assistant Professor & Third-year Review.

Chair, Admission Committee, Department of Educational Psychology, 2018-2019.

PhD Admission Committee Member, 2016 – 2022, Rutgers University, New Brunswick, NJ.

Educational Psychology Department Resource Committee Member, 2013 - 2016. Resource Committee, Rutgers University, New Brunswick, NJ.

Committee Member, 2012 – 2015, 2018-2019. Teacher Education Committee, Rutgers University, New Brunswick, NJ.

Committee Member, 2011-2012. Quantitative Curriculum Committee, College of Education, Clemson University, Clemson, SC.

Student Advisor, 2009-2011. Award Committee, College of Education, Purdue University, West Lafayette, IN.

Student Advisor, 2009-present. Student Grade Appeal Committee, College of Education, Purdue University, West Lafayette, IN.

Treasurer, 2007-2009. CEC (Council for Exceptional Children), Purdue Chapter, Purdue University, West Lafayette, IN.

Secretary for Graduate Students of Education Council, 2008-2009. College of Education, Purdue University, West Lafayette, IN.

Secretary of GoEds (Graduate Organization of Department of Educational Studies), 2008-2009. College of Education, Purdue University, West Lafayette, IN.

Student Representative of Special Education, 2006-2008. GoEds (Graduate Organization of Educational Studies), College of Education, Purdue University, West Lafayette, IN.

## **PROFESSIONAL AFFILIATIONS**

2007-present American Educational Research Association (AERA)

2007-present	Council for Exceptional Children (CEC)
2009-2010	Psychology of Mathematics Education–North America Chapter (PME-NA)
2006-present	Graduate Organization of Educational Studies (GOEDs)
2004-present	Chinese Psychology Association (CPA)