

Veena Paliwal, Ph.D.

318 Boyd, University of West Georgia
Carrollton, GA, 30118

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EDUCATION

University of Illinois at Urbana-Champaign (UIUC)
Doctor of Philosophy, Mathematics Education, 2013
Dissertation: Fostering Fluency with Basic Addition and Subtraction Facts
Advisor: Professor Arthur J. Baroody

UIUC
Master of Science, Applied Mathematics, 2008
Major: Probability theory and stochastic analysis
Advisor: Professor R. Sowers

Southern Illinois University at Carbondale (SIUC)
Master of Science, Mathematics, 2004
Thesis: Weak approximation of stochastic differential delay equation
Advisor: Professor Salah-Eldin A. Mohammed

TEACHING AND RESEARCH INTERESTS

Elementary mathematics instruction
Learning of basic number and arithmetic skills and concepts by young children
Teacher education
Stochastic analysis

PROFESSIONAL EXPERIENCE

Department of Mathematics, University of West Georgia (UWG)
Associate Professor August 2019-Present

Department of Mathematics, University of West Georgia (UWG)
Assistant Professor August 2013-July 2019

Department of Mathematics and Statistics, Murray State University (MSU)
Assistant Professor August 2012-May 2013

GRANTS

Funded

- Faculty Research Grant (UWG), (Paliwal, PI), \$4,500.00, "Building Preservice Teachers' Understanding of Fractions." 2018-19

- UWise (University of West Georgia Institutional STEM Excellence), (Paliwal, PI), \$1,600.00, “Preservice teachers’ understanding of the basic properties to solve problems in mathematics.” 2016
- Spencer Grant—Spencer Foundation, (Paliwal, PI), \$40,827.00, “How can intervention best promote the learning of the cardinality principle?” 2015-17
- UWise (University of West Georgia Institutional STEM Excellence), (Paliwal, PI), \$4,000.00, “Fostering Pre-Service Teachers’ Conceptual Understanding of Probability via Manipulations.” 2015-16
- UWise (University of West Georgia Institutional STEM Excellence), (Paliwal, PI), \$3,300.00, “Understanding Probability and Statistics Using Manipulatives” 2014-15

Unfunded

- NSF (Paliwal, CO-PI; Dr. Shea Rose, PI), \$1,456,611.00, “Science Pedagogy Enhanced with CT Reinforced through Exploration (SPECTRE).” 2020-23
- NSF (Paliwal, CO-PI; Dr. Douglas Clements, PI), \$4,593,069.00, “Evaluating the Efficacy of Early Numeracy Instruction.” 2017-22
- NSF (Paliwal, CO-PI; Dr. Satyanarayana Swamy-Mruthinti, PI), \$982,631.00, “S-STEM at UWG.” 2017-22

AWARDS

- UWG’s inaugural Chancellor’s Learning Scholar selected by the University System of Georgia 2018-20
- College of Science and Mathematics Excellence in Research award, UWG 2016
- College of Science and Mathematics Excellence in Teaching award, UWG 2015
- James Machin Award for outstanding performance, College of Education, UIUC 2011
- Doctoral Fellowship, SIUC 2004
- Gold medal for first position in Bachelor of Science, Barkatullah University, India

ACADEMIC PUBLICATIONS

- Paliwal, V., & Baroody, A.J. (2020). Cardinality principle understanding: the role of focusing on the subitizing ability. *ZDM Mathematics Education*. <https://doi.org/10.1007/s11858-020-01150-0>

- Paliwal, V., & Baroody, A. J. (2020). Fostering the learning of subtraction concepts and the subtraction-as-addition reasoning strategy. *Early Childhood Research Quarterly, 51*, 403-415.
- Paliwal, V., Baroody, A. J., & Das. A. (2019). Meaningfully Learning the Subtraction-as-Addition Reasoning Strategy. Paper presented at the 2019 annual meeting of the American Educational Research Association. Retrieved 4/8/19, from the AERA Online Paper Repository.
- Paliwal. V. (2018). Do manipulatives foster pre-service teachers' understanding of probability? *Current Issues in Middle Level Education*.
- Paliwal, V., Baroody, A. J., & Das. A. (2018). Teaching preschoolers cardinality principle by building on their subitizing ability. Paper presented at the 2018 annual meeting of the American Educational Research Association. Retrieved 4/14/18, from the AERA Online Paper Repository.
- Paliwal. V. & Baroody, A. J. (2018). How best to teach the cardinality principle? *Early Childhood Research Quarterly, 44*, 152-160.
- Paliwal. V. (2017). Considering curriculum, standards, and assessments in mathematics instruction. *US-China Education Review A, 7*(3), 144-154.
- Paliwal, V. & Baroody, A. J. (2017). How best to teach the cardinality principle? Paper presented at the 2017 annual meeting of the American Educational Research Association. Retrieved 5/1/17, from the AERA Online Paper Repository.
- Baroody, A. J., Purpura, D. J., Eiland, M. D., Reid, E., & Paliwal, V. (2015). Does Fostering Reasoning Strategies for Relatively Difficult Basic Combinations Promote Transfer by K-3 Students? *Journal of Educational Psychology, 108*(4), 576-591.
- Das, A., Epler-Brooks, P., & Paliwal, V. (2014). Teacher Candidates' Perceived Competence in Implementing Evidence Based Practices with Students with Learning and Behavior Disabilities. In M. Searson & M. Ochoa (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2014* (pp. 2402-2404). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
- Paliwal, V. (2013). Fostering Fluency with Basic Addition and Subtraction Facts. Doctoral dissertation. University of Illinois at Urbana-Champaign.

- Paliwal, V., Baroody, A. J., & Purpura, D. J. (2012). Young children's use of a shortcut. *Proceedings of Society for Research on Educational Effectiveness*. Washington, D.C.
- Paliwal, V., & Sharma, V. (2011). The impact of the digital divide on education and health. *International Journal of Computer Science and Emerging Technologies*, 2 (1).
- Baroody, A. J., Eiland, M., Paliwal, V., Bajwa, N., & Baroody, S. (2010). Fostering at-risk primary-grade children's fluency with basic addition combinations. *Proceedings of Society for Research on Educational Effectiveness*. Washington, D.C.

Book Chapters

- Paliwal, V., & Fain, A. C. (2020). The How, What, Why, and When of Teaching Mathematics in the K-12 Inclusive Classroom. In A. Singh, M. Viner, & C. Yeh (Eds.), *Special Education Design and Development Tools for School Rehabilitation Professionals (pp. 1-20)*. Hershey, PA: IGI Global. doi:10.4018/978-1-7998-1431-3.ch001
- Paliwal, V. (2018). Keeping your head held high. In A. T. Kemp (Ed.), *The dignity of the calling: Educators share the beginnings of their journeys, 173-177*. Charlotte, NC: Information Age Publishing.
- Baroody, A. J., Purpura, D. J., Reid, E., Paliwal, V., & Bajwa, N. P. (2012). Early childhood mathematics education. In P. Schuermann (Ed.), *Oxford Bibliographies Online*. New York: Oxford University Press.

TEACHING EXPERIENCE

Department of Mathematics, UWG	2013-Present
Instructor, MATH 1001, Quantitative Skills and Reasoning	
Instructor, MATH 2008, Foundation of Numbers & Operations	
Instructor, MATH 3803, Algebra for P-8 Teachers	
Instructor, MATH 4713, Probability and Statistics for P-8 Teachers	
Department of Mathematics and Statistics, MSU	2012
Instructor, MAT 115, Mathematics for Middle and Elementary Teachers I	
Instructor, MAT 145, Trigonometry	
Instructor, MAT 215, Mathematics for Middle and Elementary Teachers II	
Department of Curriculum and Instruction, UIUC	2009
Instructor, CI 432, Investigative Approach to Teaching Mathematics	
Department of Mathematics, UIUC	2006-2008

Teaching Assistant, MATH 461, Probability Theory
Instructor, MATH 115, Pre-Calculus
Instructor, MATH 234, Calculus for Business
Instructor, Calculus, Minority Affairs Department

Department of Mathematics, SIUC

2002-2004

Instructor, MATH 101, Trigonometry and Analytical Geometry
Instructor, MATH 109, Trigonometry and Analytical Geometry
Instructor, MATH 150, Calculus-I
Instructor, MATH 140, Short course in Calculus

Mathematics Teacher at R. L. S. School, India

Taught mathematics to K-12 students

2000-2002

INVITED TALKS AND PRESENTATIONS

- Paliwal, V., Baroody, A. J., & Das, A. (2019). *Meaningfully Learning the Subtraction-as-Addition Reasoning Strategy*. American Educational Research Association, Toronto, ON.
- Paliwal, V., Gaquere, A., Schroer, T., & Fain, A. (2019). Improving student success using growth mindset. *Innovations in Pedagogy Conference, UWG*.
- Paliwal, V. (2018). *Effectiveness of Manipulatives in a Probability Instruction*. Innovations in Pedagogy Conference, UWG.
- Paliwal, V., Baroody, A. J., & Das, A. (2018). *Teaching preschoolers cardinality principle by building on their subitizing ability*. American Educational Research Association, New York, NY.
- London, S. Das, A. & Paliwal, V. (2018). *Self-Efficacy and Motivation in Graduate College Students*. American Educational Research Association, New York, NY.
- Paliwal, V. (2018). *Fostering Pre-service Teachers' Understanding of Basic Arithmetic Principles*. Paper presented at Georgia STEM Conference, Savannah, GA.
- Paliwal, V. (2017). *A comparison of American and Indian education system*. Invited lecture series, Birla College, Kalyan, India.
- Paliwal, V. (2017). *Pre-service teachers' understanding of arithmetic principles*. Innovations in Pedagogy Conference, UWG.
- Paliwal, V. & Baroody, A. J. (2017). *How best to teach the cardinality principle?* American Educational Research Association, San Antonio, TX.
- Paliwal, V. (2016). *Do manipulatives help pre-service teachers in understanding Probability?* Paper presented at Georgia STEM Conference, Statesboro, GA.
- Paliwal, V. (2015). *Mathematics instruction for students across the world*. Global Education Conference.
- Paliwal, V. (2014). *My professional journey*. American Association for Teaching & Curriculum, 21st conference, Tampa, FL.
- Das, A., Epler-Brooks, P., & Paliwal, V. (2014). *Teacher Candidates' Perceived Competence in Implementing Evidence Based Practices with Students with Learning and Behavior Disabilities*. Association for the Advancement of Computing in Education.

- Paliwal, V. (2012). *Young children's use of strategies to solve addition problems*. Mathematics Colloquium, North Dakota State University
- Paliwal, V. (2012). *Young children's understanding of make-ten and near doubles*. GS Conference, UIUC
- Paliwal, V. (2011). *Young children's use of shortcut*. GS Conference, UIUC.
- Paliwal, V. (2008). *Random perturbation of canards*. GS Conference, University of Wisconsin-Madison.

REVIEWER

Academic Journals

- *Early Childhood Research Quarterly*
- *Georgia Journal of Science*
- *Journal of Early Years Education*

Book

- Teaching Children Mathematics

Conference Proposals

- American Education Research Association
- National Council of Teachers of Mathematics
- Psychology of Mathematics Education-North American Chapter

Grant Proposal

- Improving Teacher Quality State Grants