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Assistant Professor
*Department of Early Childhood, Elementary, Middle,
Literacy and Special Education*
University of North Carolina Wilmington

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ACADEMIC DEGREES

Doctorate of Philosophy (Ph.D.), Educational Specialties

University of Nevada, Reno

December, 2006

Dissertation Title: The Relationship of Sixth-Grade Students' Mental Rotation Ability to Spatial Experience and Problem-Solving Strategies by Socioeconomic Status and Gender

Advisor: Lynda R. Wiest

Master of Education (M.Ed.), Elementary Education

University of Nevada, Reno

December, 1999

Bachelor of Science (B.S.), Elementary Education and Special Education

University of Nevada, Reno

May, 1996

PROFESSIONAL EXPERIENCE

Assistant Professor, University of North Carolina at Wilmington, Elementary, Middle Level, and Literacy Education (August 2008-Present)

- Foundations of Geometry, Measurement, and Data K-6 (EDN 325)
Undergraduate course focused on the curriculum, materials, and methods appropriate for the teaching of geometry, measurement, data, and probability for the kindergarten through sixth grade level. (Online and face-to-face sections)
- Foundations of Number and Algebraic Reasoning K-6 (EDN 322)
Undergraduate course focused on the curriculum, materials, and methods appropriate for the teaching of number and algebraic reasoning for the kindergarten through sixth grade level. (Online and face-to-face sections)
- Seminar in Education (EDN 419)
Seminar required while students are completing their student teaching. Provides opportunity to extend and apply understandings of the roles of the teacher as a decision-maker, particularly in the areas of planning, instruction, management, and evaluation.
- Practicum K-6 (EDN 411)
Final practicum experience for elementary licensure. Students complete their 16-week student teaching in a K-6 classroom. Generally supervise 4-6 students each semester.

- Advanced Mathematics Methods K-6 (LIC 522)
Graduate course focused on the curriculum, assessment, and instructional methods for teaching mathematics in the elementary grades. Course topics include algebraic relationships, number sense, place value, fact mastery and computation, whole number operations, fractions, geometry, measurement, data analysis, and probability.

Assistant Professor, Missouri State University, Childhood Education and Family Studies
(August 2005- August 2008)

- Methods of Teaching Mathematics in the Elementary Schools (ELE 429)
Undergraduate course focused on learning, instruction, and current issues in mathematics for grades K-6.
- Current Issues and Applications in Elementary Education (ELE 500)
Undergraduate course focused on working with diverse learners, assessment, integrated planning, classroom management, professionalism, and integrating art and music in the general education classroom. Responsibilities included coordinating workshops, course schedules, and field placements with local Title One schools, updating course manual, teaching the integrated curriculum workshops, working with a local community agency to implement a poverty simulation, and supervising a cadre of students during an intensive eight week practicum.
- Integrated Methods Class for Mathematics and Science (EEM 576)
Summer school class focused on teaching mathematics and science in the elementary schools for post baccalaureate students.

Instructor, University of Nevada, Reno, College of Education, (2003-2005)

- Teaching and Learning Mathematics: Birth to Age Eight (EDS 451)
Spring 2005, Full responsibility for instruction and assessment
- Teaching Mathematics in Grades K-8 (CI 362)
Fall 2003, Full responsibility for instruction and assessment
- Practicum in Grades K-8 Mathematics (CI 363)
Fall 2003, Full responsibility for practicum placement, supervision, instruction, and assessment

Graduate Assistant, University of Nevada, Reno, College of Education, (2003-2005)

- Course Assistant, Special Education Practicum (EDS 314)
Responsible for practicum placements, lesson plan assessment, and observation and evaluation of pre-service teachers
- Regents Award Program (RAP)
Arranging placements for math tutoring programs benefiting students in grades K-12 and tutoring students in mathematics
- Assisting professors in reviewing manuscripts, communicating with local area superintendents concerning future courses and university activities, reviewing literature for future research, seeking grant funding, and helping design a website for the Girls Math and Technology Camp.
- Teaching Assistant, Girls Math and Technology Camp (Grades 7 and 8)
Planned and implemented lessons in math and technology.

Teacher, Washoe County School District, (1996-2005)

- Mathematics Specialist, Virginia Palmer Elementary
(Fall 2004-Spring 2005)
Responsible for teaching mathematics to struggling students in grades 4-6 and providing instructional support to classroom teachers.

- Classroom Teacher, Virginia Palmer Elementary (1999-2004), Grades 2 and 3
Responsible for all academic subjects
- Classroom Teacher, George Westergard Elementary (1997-1999), Grade 1
Responsible for all academic subjects
- Summer School Teacher, Virginia Palmer Elementary (2000-2002), Grades 1, 2, and 3 & Grades 4, 5, and 6
Readiness program focusing on mathematics and literacy instruction

PUBLICATIONS

- Yang, C., Tzuo, P., Higgins, H. J., & Tan, C. (2012). Information and communication technology as a pedagogical tool in teacher preparation and higher education. *Journal of College Teaching & Learning*. 9(4), 327-338.
- Ritzhaupt, A.D. & Higgins, H. J. (2012) Effects of data visualization exercises on data analysis and measurement skills, attitudes towards mathematics, and computer self-efficacy. *Journal of Technology Integration in the Classroom*. 4(3) 13-23.
- Ritzhaupt, A. D., Higgins, H. J. & Allred, S. B. (2011). Effects of modern educational game play on attitudes towards mathematics, mathematics self-efficacy, and mathematics achievement. *Journal of Interactive Learning Research*. 22(2), 277-297.
- Ritzhaupt, A. D., Higgins, H., & Allred, S. B. (2010). Teacher experiences on the integration of modern educational games in the middle school mathematics classroom. *Journal of Computers in Mathematics and Science Teaching*. 29(2), 189-216.
- Powell, D., Higgins, H. J., Aram, R., & Freed, A. (2009). Impact of No Child Left Behind on curriculum and instruction in rural schools. *The Rural Educator*. 31(1) 19-28.
- Ritzhaupt, A. D., Higgins, H. J. & Allred, S. B. (2009). *Evaluation of the DimensionM game series in the middle school mathematics classroom*. Tabula Digita: Educational Gaming Company.
- Higgins, H. J. & Powell, D. (2007). *Pre-service teachers' philosophies & intellectual development for planning and teaching problem-solving in an integrated context*. Proceedings of the North American Chapter of the International Group for the Psychology of Mathematics Education conference.
- Higgins, H. J. (2009). Reasoning with Rekenrek, [Book Review]. *Teaching Children Mathematics*. 15(6) 384
- Higgins, H. J. (2009). One odd day and My even day. [Book Review]. *Teaching Children Mathematics*. 15(5) 314-315.
- Wiest, L. R., Higgins, H. J., & Frost, J. H. (2007). Quantitative literacy for social justice. *Equity and Excellence in Education*. 40, 1-9.

Higgins, H. J. & Wiest, L. R. (2006). Individual interviews as insight into children's computational thinking. *Australian Primary Mathematics Classroom*. 11(1) 25-29.

PRESENTATIONS

Higgins, H. J. Wiest, L. R., Thomas, T. R., & Duncan, T. (Submitted 07/18/14). *Student preparation in mathematics for elementary/middle grades licensure*. Brief Research Report at the annual meeting of National Council of Teachers of Mathematics Research Preconference. Boston, MA. (April, 2015).

Higgins, H. J. & Hargrove, T. (Submitted 04/28/14). *Enhancing social presence in online math methods courses*. Presentation at the annual meeting of National Council of Teachers of Mathematics, Boston, MA. (April, 2015).

Higgins, H. J. & Hargrove, T. (November, 2014). *Promoting pre-service teachers' use of mathematical discourse in the classroom*. Presentation at the annual School Science and Mathematics Association conference. Jacksonville, FL.

Higgins H. J. (November, 2014) *Foundations of teaching geometry, data, and measurement*. Syllabus share at the annual School Science and Mathematics Association conference. Jacksonville, FL.

Higgins, H. J. & Hargrove, T. (April, 2014). *Blazing a trail through the Common Core*. Presentation at the annual meeting of National Council of Teachers of Mathematics, New Orleans, LA.

Hargrove, T. & Higgins H. J. (April, 2014). Look who's talking: Using math talk to promote number sense. Presentation at the annual meeting of National Council of Teachers of Mathematics, New Orleans, LA.

Higgins, H. J. (November, 2013). *Math trails as an avenue to explore the Common Core Standards*. Presentation at the annual School Science and Mathematics Association conference. San Antonio, TX.

Higgins, H. J. & Morge, S. P. (November, 2013). *Using blogs to enhance the teaching and learning of mathematics*. Presentation at the annual School Science and Mathematics Association conference. San Antonio, TX.

Rhodes, G., Morge, S. P., & Higgins, H. J. (January, 2013). *Prospective elementary teachers' interpretations of a classroom scenario*. Brief report at the annual meeting of the Association of Mathematics Teacher Educators, Orlando, FL.

Rhodes, G., Morge, S. P., & Higgins, H. J. (April, 2012). *Elementary teachers' perceptions of mathematical and pedagogical authority*. Work session at the annual meeting of National Council of Teachers of Mathematics, Philadelphia, PA.

Powell, D. A. & Higgins, H. J. (February, 2012). *Pre-service teachers' intellectual development may impede their ability to learn effective pedagogy*. Paper presentation at the annual meeting of The Association of Teacher Educators. San Antonio, TX.

- Higgins, H. J., Morge, S. P., & Rhodes, G. (2011, November). *Elementary teachers' definitions and characterizations of "Good" mathematics teaching*. Presentation at the annual meeting of the School Science and Mathematics Association, Colorado Springs, CO.
- Ritzhaupt, A.D. & Higgins, H. J. (June, 2011). *Data visualization exercises and their effects on learning*. Paper presented at the International Society for Technology in Education. Philadelphia, PA.
- Higgins, H.J. & Powell, D. A. (April, 2011). *Pre-service teachers' epistemological beliefs about teaching and learning mathematics*. Paper presented at the National Council of Teachers of Mathematics conference, Indianapolis, IN.
- Ritzhaupt, A. D., Higgins, H. J. & Allred S. B. (June, 2010). *Modern educational games and middle school mathematics*. Paper presented at the International Society for Technology in Education, Denver, CO.
- Ritzhaupt, A. D., Higgins, H. & Allred S. B. (June, 2010). *Teacher voices on integrating games in middle school classrooms*. Paper presented at the International Society for Technology in Education, Denver, CO.
- Ritzhaupt, A. D., Higgins, H. & Allred S. B. (May, 2010). *Effects of modern educational game play on attitudes towards mathematics, mathematics self-efficacy, and mathematics achievement*. Paper presented at the American Educational Research Association, Denver, CO.
- Ritzhaupt, A. D., Higgins, H. & Allred S. B. (May, 2010). *Teacher experiences on the integration of modern educational games in the middle school mathematics classroom*. Paper presented at the American Educational Research Association, Denver, CO.
- Ritzhaupt, A. D., Higgins, H.J. & Allred S. B. (October, 2009). *Effects of serious gameplay on mathematics achievement and self-efficacy*. Paper presented at the Association of Educational and Communication Technology, Louisville, KY.
- Morge, S. P. & Higgins, H. J (October, 2009). *Is online a good substitute for face-to-face in mathematics methods courses?* Presentation at the School Science and Mathematics Association conference. Reno, NV.
- Higgins, H. J. & Morge, S. P. (August, 2009). *Online vs. face-to-face: What works for undergraduate mathematics methods courses?* Presentation at the Association of Teacher Educators conference. Reno, NV.
- Powell, D., Aram, R. Higgins, H. J., & Freedman, A. (January 2009). *Six years of No Child Left Behind: Impacts on science curriculum and instruction*. Paper presented at the International Conference for the Association for Science Teacher Education, Hartford, Connecticut.
- Higgins, H. J. & Powell, D. (October 2007). *Pre-service teachers' philosophies & intellectual development for planning and teaching problem-solving in an integrated context*.

Discussion group conducted at the North American Chapter of the International Group for the Psychology of Mathematics Education conference, Lake Tahoe, Nevada.

Higgins, H. J., Corbin, J. F., & Wiest, L. R. (July 2004). *Quantitative literacy for social justice*. Workshop conducted at the 2nd International Conference of Teacher Education and Social Justice, San Francisco, California.

MANUSCRIPTS UNDER REVIEW ---

Higgins, H. J. & Powell, D. (Submitted August 14, 2014). Pre-Service teachers' intellectual development may impede their ability to learn effective pedagogy, *Action in Teacher Education*.

Higgins, H. J. & Hargrove, T. (Submitted July 24, 2014). Hitting the Math Trail. *Teaching Children Mathematics*.

MANUSCRIPTS IN PROCESS ---

Rhodes, G., Higgins, H. J., & Morge, S. P. (Anticipated Submission October 2014). *Pre-Service teachers' mathematical and pedagogical authority*, *Teacher Education & Practice*.

GRANTS RECEIVED ---

Higgins, H. J. & Hargrove, T. (2014). *Illuminating children's understanding of early number concepts*. Sponsored by Watson College of Education Mini-Grant. \$1,975.

Higgins, H. J. (2012). *Travel funds for conference presentation at the Association for Teacher Educators or National Council of Teachers of Mathematics conference*. Sponsored by Watson College of Education Professional Travel Mini-Grant, \$1,000.

Morge, S.P., Higgins, H. J. & Rhodes, G. (2012) *Summer research assistance for mathematical and pedagogical authority research*. Sponsored by Watson School of Education. \$1,800.

Higgins, H. J., Morge, S. P., & Rhodes, G. (2011). *Pre-service teachers' mathematical and pedagogical authority*. Sponsored by Cahill Grant, University of North Carolina Wilmington, \$2997.55.

Higgins, H. J. (2009). *Is online a good substitute for face-to-face in mathematics methods courses?* Sponsored by Watson School of Education Mini-Grant. \$1,000.

Higgins, H.J. & Ritzhaupt, A. D. (2009). *Integrating Data Visualization and Analysis into the Middle School Mathematics Classroom*. Sponsored by Watson School of Education Mini-Grant. \$1,500.

Powell, D., Higgins, H. J., Patterson, D., & Calhoun, D. (2008). *Partnership and professional development to collaboratively improve a diverse school and teacher education with video podcasts*. Sponsored by Watson School of Education Mini-Grant. \$1,000.

GRANTS SUBMITTED BUT NOT FUNDED

- Hargrove, T., & Higgins, H. J. (2013). *Using video to illuminate children's understanding of early number concepts*. Cahill Grant, University of North Carolina Wilmington. \$3,000.
- Higgins, H.J., Ritzhaupt, A. D., Allred, S. E. & Moallem, M. (2009). *Efficacy of modern educational games on mathematics performance, attitudes towards mathematics, and classroom dynamics*. U.S. Department of Education. \$1,740,000.
- Higgins, H.J. & Ritzhaupt, A.D. (2009). *Integrating Data Visualization and Analysis into the Elementary and Middle School Mathematics Classroom*. Cahill Grant, University of North Carolina Wilmington. \$2,750
- Richardson, J., Walser, T.M., Ertzberger, J. G., & Higgins, H. J. (2009). *Building model eliciting activities (MEAs) and simulations in the middle grades: Supporting teachers and enhancing student learning thought*. U. S. Department of Education. \$1,496,413.
- Powell, D. & Higgins, H.J., Parker, P., Catapano, S., & Taggart, J. (2009). *Janus: Creating 21st century elementary STEM classrooms*, National Science Foundation Discovery Research Project. \$449,000.

PROFESSIONAL MEMBERSHIPS

- National Council of Teachers of Mathematics (since 1997)
- American Educational Research Association (since 2003)
- North American Chapter of the International Group for the Psychology of Mathematics Education (since 2007)
- School Science and Mathematics Association (since 2009)

RELATED EXPERIENCE

- Reviewer and Referee for *Teaching Children Mathematics* published by the National Council of Teachers of Mathematics (2002-present)
- Reviewer and Referee for *Australian Mathematics Primary* published by the Australian Association of Mathematics Teachers Inc (2008-present)
- Reviewer for *Mathematics Teacher Educator* – journal published by the Association of Mathematics Teacher Educators and the National Council of Teachers of Mathematics (2011 – present)
- Assistant Chair and Committee Member for the University Studies Committee (Fall 2010-Spring 2013).
- Faculty Senate (Fall 2011-Spring 2013).

Undergraduate Coordinator for Elementary Education Extension Campus (Fall 2012 – Present)