

# CURRICULUM VITAE

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## Juli K. Dixon

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### ACADEMIC BACKGROUND

- Ph.D. UNIVERSITY OF FLORIDA, Gainesville, FL  
1995 Instruction and Curriculum – Mathematics Education
- M.S. SYRACUSE UNIVERSITY, Syracuse, NY  
1989 Mathematics Education
- B.A. STATE UNIVERSITY OF NEW YORK AT POTSDAM, Potsdam, NY  
1987 Dual Major: Mathematics and Education

### PROFESSIONAL EXPERIENCE

- 2009-present **Professor of Mathematics Education** – School of Teaching, Learning, and Leadership. University of Central Florida, Orlando, Florida.
- 2000-2009 **Associate Professor of Mathematics Education** – Department of Teaching and Learning Principles. University of Central Florida, Orlando, Florida.
- 1995-2000 **Assistant Professor of Mathematics Education** – Department of Curriculum and Instruction, University of Nevada, Las Vegas, NV.
- 1994-1995 **Long-term Substitute Teacher, Grade 8 Mathematics** – Orange County Public Schools, Orlando, FL.
- 1990-1993 **Graduate Teaching Assistant/Practicum Supervisor** – Instructor, Fundamentals of Mathematics and Elementary Mathematics Methods; Supervisor, Elementary Education Interns; Director, Calculus Tutoring Center. University of Florida, Gainesville, FL.
- 1989-1990 **Mathematics Teacher** – Middle school mathematics in a mathematics and science magnet school. Taught eighth-grade mathematics and supported integration of middle school mathematics and science, Syracuse, NY.

- 1989-1990 **Homebound Instructor and Mathematics Hotline Tutor** – Provided in-home instruction and phone-based tutoring for grades 9 – 12 students in mathematics, Syracuse, NY.
- 1988-1990 **College Algebra Instructor** – Department of Mathematics, Syracuse University, Syracuse, NY.
- 4/89-6/89 **Mathematics Instructor** – Workplace literacy program for sheet metal workers, Syracuse, NY.
- 1987-1989 **Mathematics Laboratory Specialist** – Taught mathematics to low-performing students in Kindergarten through grade 8, Syracuse, NY.
- 1987-1988 **Mathematics Intern** – Worked with university and middle school faculty on a project to integrate technology in mathematics instruction, Syracuse, NY.

## HONORS AND AWARDS

- William R. Jones Outstanding Mentor Award, Florida Education Fund, 2014.
- UCF Women Making History Award, 2014.
- UCF Research Incentive Award, 2012-2013
- UCF Scholarship of Teaching and Learning Award, 2012-2013
- UCF Teaching Incentive Program Award, 2011-2012.
- Nominee, Doctoral Student Mentor Award, 2009, 2010, 2013.
- UCF Scholarship of Teaching and Learning Award, 2005-2006.
- UCF Teaching Incentive Program Award, 2005-2006.
- Excellence in Undergraduate Teaching Award, College of Education, UCF, 2005-2006.
- Contemporary Issues in Technology and Teacher Education's (CITE's) featured mathematics education article, 2006.
- Doctoral Student Dissertation of Kim Lowry received AERA Dissertation Fellowship, Chair of dissertation committee, 2005.
- UCF Research Incentive Award, 2004-2005.
- Distinguished Researcher Award, College of Education, UCF, 2004-2005.
- Outstanding Research Award for 2003 – 2004 from the New York College Learning Skills Association (NYCLA), 2004.
- Associate Director of program receiving Christa McAulliffe Award for Excellence in Teacher Education, 2004
- Selected as one of two faculty members to represent University of Nevada, Las Vegas (UNLV) in a national television campaign, 1998-1999.
- Selected as one of five faculty members to represent University of Nevada, Las Vegas (UNLV) in a national print campaign, 1998-1999.
- Award of Supplemental Graduate Student Financial Support, 1995, 1996, 1998.
- University Faculty Travel Committee Award. 1995, 1996, 1997.
- University Research Grants and Fellowships Award, 1996.
- Bilingual Multicultural Education Fellowship, 1990-1994.
- Empire State Scholarship for Mathematics and Science Teachers, 1984-1987

## RESEARCH AND CREATIVE ACTIVITIES

### Research Foci:

- 1) Improving student achievement by focusing on deepening teachers' knowledge of mathematics for teaching;
- 2) Supporting communication and justification of mathematical ideas;
- 3) Developing mathematics curricula that is focused and meaningful; and
- 4) Integrating technology in mathematics instruction through professional development of teachers.

### Publications

Note: In the field of education, the primary author is listed first.

\* denotes graduate advisee.

### Books (refereed)

**Dixon, J. K.**, Adams, T. L., Nolan, E. C. (in press September 2014). *Beyond the Common Core: A handbook for mathematics in a PLC at work<sup>TM</sup>: Grades K-5*. T. D. Kanold (Ed.). Bloomington, IN: NCTM and Solution Tree Press.

Larson, M., Fennell, F., Adams, T. L. **Dixon, J. K.**, Kobett, B., & Wray, J. (2012). *Common core mathematics in a PLC at work<sup>TM</sup>: Grades 3-5*. T. D. Kanold (Ed.). Bloomington, IN: Co-published with NCTM and Solution Tree Press.

Larson, M., Fennell, F., Adams, T. L. **Dixon, J. K.**, Kobett, B., & Wray, J. (2012). *Common core mathematics in a PLC at work<sup>TM</sup>: Grades K-2*. T. D. Kanold (Ed.). Bloomington, IN: Co-published with NCTM and Solution Tree Press.

Hynes, M. C. & **Dixon, J. K.** (Eds.) (2005). *Mission mathematics II: Linking aerospace and the NCTM Standards in grades 6-8*. Reston, VA: NCTM.

### Chapters, and Monograph (refereed)

**Dixon, J. K.**, Andreasen, J. B., \*Roy, G. J., \*Wheeldon, D. A. & \*Tobias, J. M. (2011). The role of manipulatives in motivating preservice teachers to develop a deep understanding of multiplying and dividing fractions. *Motivation and Disposition: Pathways to Learning Mathematics*. NCTM Seventy-third Yearbook, 279 - 289.

**Dixon, J. K.** & \*Falba, C. J. (1999). Graphing in the information age: Using data from the World Wide Web. Reprint in K. E. Easterday, F. M. Simpson, & T. Smith (Eds.) *Activities for junior high school and middle school mathematics, vol. 2*, 264–268.

**Dixon, J. K.** (1995). Effects of English proficiency, visualization, and instructional environment in constructing concepts of reflection and rotation *Monograph of the Florida Educational Research Council*, 26(4).

### Journal Articles (refereed)

\*Roy, G. J., \*Tobias, J., \*Safi, F., & **Dixon, J. K.** (in press). Sustaining social and sociomathematical norms with prospective elementary teachers in mathematics content course. *Investigations in Mathematics Learning*.

**Dixon, J. K.**, Andreasen, J. B., \*Avila, C. L., \*Bawatneh, Z., \*Deichert, D., \*Howse, T., \*Sotillo Turner, M. (2014). Redefining the whole: Common errors in elementary preservice teachers' self-authored word problems for fraction subtraction. *Investigations in Mathematics Learning* 7(1), 1-22.

**Dixon, J. K.** & \*Tobias, J. M. (2013). The “whole” story: Understanding fraction computation. *Mathematics Teaching in the Middle School* 19, 156-163.

\*Brooks, L. A. & **Dixon, J. K.** (2013). Changing the rules to increase discourse. *Teaching Children Mathematics* 20, 84-89. **Cover Article.**

Haciomeroglu, E. S., Chicken, E. & **Dixon, J. K.** (2013). Relationships between gender, cognitive ability, preference, and calculus performance. *Mathematical Thinking and Learning* 15, 175-189.

\*Akyuz, D. **Dixon, J. K.**, & Stephan, M. (2013). Improving the quality of mathematics teaching with effective planning practices. *Teacher Development: An International Journal of Teachers' Professional Development* 17(1), 92-106.

\*Akyuz, D., Stephan, M., & **Dixon, J. K.** (2012). The role of the teacher in supporting imagery in understanding integers. *TED Education and Science* 37(163), 268 - 282.

**Dixon, J. K.**, Andreasen, J. B. & Stephan, M. (2010). Establishing social and sociomathematical norms in an undergraduate mathematics content course for prospective teachers: The role of the instructor. *AMTE Monograph VI: Scholarly practices and inquiry into the mathematics preparation of teachers*, 43 - 66.

**Dixon, J. K.**, \*Egendoerfer, L. A., & \*Clements, T. (2009). Do they really need to raise their hands? Challenging a traditional social norm in a second grade mathematics classroom. *Teaching and Teacher Education* 25, 1067 - 1076.

Selected for listing on *MOFET ITEC: International portal of teacher education*. This portal consists of abstracts of “the best papers on teacher education topics from the leading journals in the world in the field” (<http://itec.macam.ac.il/portal/>).

**Dixon, J. K.** (2009). Understanding the K-8 mathematics standards: Connecting area formulas. *Dimensions in Mathematics* 29(1), 5-10.

\*Akyuz, D. & **Dixon, J. K.** (January, 2009). Quadratic equations and “cut-and-paste” geometry: A technological approach to a historical problem. *ON-Math: On-line Journal of School Mathematics*.

**Dixon, J. K.** (2009). Understanding the K-8 mathematics standards: Re-examining our practice: The case of long division. *Dimensions in Mathematics* 28(2), 7-12.

- Dixon, J. K.** (2008). Tracking time: Representing elapsed time on an open timeline. *Teaching Children Mathematics* 15(1), 18-24.
- Dixon, J. K.** (2008). Understanding the K-8 mathematics standards: An example of depth: Comparing fractions. *Dimensions in Mathematics* 28(1), 5-8.
- Dixon, J. K.** & Kersaint, G. (2008). Uncharted territory: Using the Curriculum Focal Points as a basis for designing state standards. *NCSM Journal of Mathematics Education Leadership* 10(1), 22-26.
- Kersaint, G. & **Dixon, J. K.** (2008). Understanding the K-8 mathematics standards: What's new about the new K-8 mathematics standards? *Dimensions in Mathematics* 27(2), 13-16.
- \*Andreasen, J. B., \*Swan, B. A. & **Dixon, J. K.** (2007). A framework for identifying stages of teacher change resulting from extended mathematics professional development. *Focus on Learning Problems in Mathematics* 29(4), 13-29.
- \*Bray, W. S., **Dixon, J. K.**, & Martinez, M. (2006). Fostering communication about measuring area in a transitional language class. *Teaching Children Mathematics Focus Issue on Teaching and Learning Measurement* 13, 132-138. **Cover Article.**
- \*Swan, B. & **Dixon, J.** (2006). The effects of mentor supported technology professional development on middle school teachers' attitudes and practice. *Contemporary Issues in Technology and Teacher Education* [Online Serial], (6)1. Available: <http://www.citejournal.org/vol6/iss1/mathematics/article1.cfm>
- Dixon, J. K.**, \*Swan, B. A., \*Andreasen, J. B., Bamberger, A. & Yoder, D. (2004). MSPD, a statewide program that improves mathematics teachers' knowledge. *Dimensions in Mathematics* 24(2) 28-32.
- Dixon, J. K.** & Ortiz, E. (2004). The Florida Association of Mathematics Teacher Educators (FAMTE). *Dimensions in Mathematics* 24(2) 6.
- Dixon, J. K.**, \*Swan, B. A., \*Andreasen, J. B., Bamberger, A. & Yoder, D. (2004). MSPD, a statewide program that improves science teachers' knowledge. *The Florida Science Teacher*, 16(4), 11-14. reprint.
- Dixon, J. K.** (2004). MSPD, a statewide program that improves science teachers' knowledge. *The Florida Science Teacher*, 16(3), 11-14.
- Dixon, J. K.** (Winter, 2002). Movements in the plane: Conjecturing about properties of transformations. *ON-Math: On-line Journal of School Mathematics*.
- \*Glickman, C. L. & **Dixon, J. K.** (2002). Teaching intermediate algebra using reform computer assisted instruction. *The International Journal of Computer Algebra in Mathematics Education* 9, 75-88.

- \*Glickman, C. L. & **Dixon, J. K.** (2002). Teaching algebra in a situated context through reform computer assisted instruction. *Research and Teaching in Developmental Education* 18(2), 57-84.
- Heflich, D. A., **Dixon, J. K.**, & Davis, K. S. (2001). Taking it to the field: The authentic integration of mathematics and technology in inquiry-based science instruction. *Journal of Computers in Mathematics and Science Teaching* 20(1), 99-112.
- Dixon, J. K.** (2000). A collaborative model for the use of technology by preservice and inservice mathematics teachers in their teaching practices. *Focus on Learning Problems in Mathematics* 22(3 & 4), 100-110.
- Usnick, V., **Dixon, J. K.**, & Ford, M. S. (2000). Using calculators to promote discourse for diagnostic purposes. *Focus on Learning Problems in Mathematics* 22(3 & 4), 93-99.
- \*Grove, K. J. & **Dixon, J. K.** (2000). Providing leadership in professional development: Exploring instructional models for teachers that integrate technology in mathematics. *Journal of Mathematics Education Leadership* 4(1), 13-19.
- Dixon, J. K.**, \*Glickman, C. L., \*Wright, T. L., & \*Nimer, M. T. (2000). Function-ing in a world of motion. *Mathematics Teacher* 93, 180-185. **Cover Article.**
- Dixon, J. K.** & \*Ruetten, M. M. (1999). A slice of data. *Learning & Leading with Technology* 27(2), 22-27.
- \*Falba, C. J., Strudler, N., Bean, T. W., **Dixon, J. K.**, Markos, P. A., McKinney, M., & Zehm, S. J. (1999). Choreographing change one step at a time: Reflections on integrating technology into teacher education courses. *Action in Teacher Education* 21(1), 61-73.
- Dixon, J. K.** (1997). Computer use and visualization in students' construction of reflection and rotation concepts. *School Science and Mathematics* 97, 352-358.
- Dixon, J. K.** & \*Falba, C. J. (1997). Graphing in the information age: Using data from the World Wide Web. *Mathematics Teaching in the Middle School*, 298-304. **Cover Article.**
- Dixon, J. K.** (1996). A logical journey for grades 4 - 12. *The Mathematician* (October), 13.
- Speer, W. R. & **Dixon, J. K.** (1996). Investigations: Reflections of mathematics. *Teaching Children Mathematics* 2, 537-543.
- Dixon, J. K.** (1995). Limited English proficiency and spatial visualization in middle school students' construction of concepts of reflection and rotation. *Bilingual Research Journal* 19, 221-247.

**Proceedings (refereed)**

Nolan, E. C. & **Dixon, J. K.** (2008). Technology applications in *Student Math Notes*. In *Proceedings of International Conference of the Society for Information Technology and Teacher Education* (pp. 4521-4524). Available on CD-ROM.

**Dixon, J. K.** & Johnson, J. (2001). Cyber spaces and learning places: The role of technology in inquiry. In *Proceedings of the International Conference of the Society for Information Technology and Teacher Education*. Available on CD-Rom.

Heflich, D., Govett, A., & **Dixon, J.** (2000). Technology and field-based learning: Efforts to bring about change in schools. In Crawford, C., Willis, D., Carlson, R., Gibson, I. McFerrin, K., Price, J., & Weber, R. (Eds.), *Proceedings of Society for information Technology and Teacher Education International Conference 2000* (pp. 1845-1850). Chesapeake, VA: AACE.

**Dixon, J. K.** (1995). Construction of concepts of transformations using technology in a language diverse classroom. In proceedings of the *Seventeenth Annual Meeting: North American Chapter of the International Group for the Psychology of Mathematics Education*.

Kantowski, M. G., Robinson, S., Adams, T. L., **Dixon, J. K.**, & Issacson, J. (1993). Assessing mathematical problem solving from multiple perspectives. In proceedings of the *Florida Educational Research Council William F. Breivogel conference on alternative/ portfolio assessment*.

### **Grants and Other Funded Projects**

Schoen, R. (FSU), **Dixon, J. K.** (UCF), & Secada, W. (UM). (2012-2015). *Replicating the CGI experiment in diverse environments*. Institute of Education Sciences (IES) Education Effective Teachers and Effective Teachers Program, Efficacy and Replication Study, **funded \$3,480,000**.

Lobo, N., **Dixon, J. K.**, Shah, M., & Gresham, G. (2007-2011). *PROFIT: Pictures represent opportunities for inspirations in technology*. National Science Foundation Information Technology Experiences for Students and Teachers (ITEST), **funded \$1,200,000**.

Dieker, L. A., **Dixon, J. K.**, & Jeanpierre, B. (2008). *Providing doctoral leadership to the Toni Jennings Exceptional Education Institute Teaching and Research Clinic*. Toni Jennings Exceptional Education Institute, funded, \$9,000.

**Dixon, J. K.** (2007). *Partnership to support doctoral students in mathematics education*. Harcourt School Publishers, funded, \$15,000.

Dieker, L. A. & **Dixon, J. K.** (2007). *Providing doctoral leadership to the Toni Jennings Exceptional Education Institute Teaching and Research Clinic*. Toni Jennings Exceptional Education Institute, funded, \$10,000.

- Dixon, J. K.** (2006). *Partnership to support doctoral students in mathematics education*. Harcourt School Publishers, funded, \$15,000.
- Dieker, L. A., **Dixon, J. K.** & Jeanpierre, B. (2006). *Providing doctoral leadership to the Toni Jennings Exceptional Education Institute Teaching and Research Clinic*. Toni Jennings Exceptional Education Institute, funded, \$10,000.
- Dixon, J. K.** & Swan, B. (2004). *Middle school teacher preparation, certification and students' mathematics achievement in a large urban district*. Multi-University Reading, Mathematics and Science Initiative, Learning Systems Institute, Florida State University, funded, \$3,000.
- Dixon, J. K.** (2003). *Mathematics and Science Professional Development Program*. Florida Department of Education, **funded, \$2,840,000.**
- Dixon, J. K.**, Ortiz, E. & Brumbaugh, D. (2003). *Undergraduate materials grant for mathematics methods*. University of Central Florida, funded, \$10,522.
- Leinsing, D. & **Dixon, J. K.** (2002). *Mathematics and Science Professional Development Program*. Florida Department of Education, **funded, \$2,200,000.**
- Dixon, J. K.** (2000). *Tools for teaching the Nevada Mathematics Standards: A collaborative project for pre- and inservice middle school teachers*. Dwight D. Eisenhower Mathematics and Science Education Act, Nevada Higher Education Programs, funded, \$31,217.
- Dixon, J. K.** & Speer, W. R. (1999). *Nevada Mathematics Standards collaborative geometry/technology project for pre and inservice middle school teachers*. Dwight D. Eisenhower Mathematics and Science Education Act, Nevada Higher Education Programs, funded, \$26,157.
- Speer, W. R. **Dixon, J. K.** (1999). *Development and implementation of a school-to-careers curriculum project*. Center for Educational Research and Planning, University of Nevada, Las Vegas, funded, \$4,000.
- Dixon, J. K.** (1998). *Integrating dynamic drawing technology into the geometry classroom through experience and modeling*. Dwight D. Eisenhower Mathematics and Science Education Act, Nevada Higher Education Programs, funded, \$14,240.
- Heflich, D. A., Davis, K. S. & **Dixon, J. K.** (1998). *The authentic integration of science and technology in field-based settings*. Dwight D. Eisenhower Mathematics and Science Education Act, Nevada Higher Education Programs, funded, \$28,364.
- Dixon, J. K.** (1998). *Using technology and innovative approaches in preservice teacher education*. University of Nevada, Las Vegas Planning Initiative Award, funded, \$9,900.
- Dixon, J. K.** (1994). *Research Grant*. Florida Educational Research Council, funded \$2,500.



**Books/Chapters/Other Contributions**

- Dixon, J. K.**, Burger, E. B., Kanold, T. D., Larson, M. R., Leinwand, S. J (2015). *Go Math for Middle School. (Grades 6-8 regular and advanced Student and Teachers' Editions for the Common Core State Standards for Mathematics)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Dixon, J. K.**, Burger, E. B., Kanold, T. D., Larson, M. R., Leinwand, S. J (2015). *Algebra 1: Analyze, Connect, Explore. (Student and Teachers' Editions for the Common Core State Standards for Mathematics)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Burger, E. B., Kanold, T. D., **Dixon, J. K.**, Larson, M. R., Leinwand, S. J (2015). *Algebra I, Geometry, Algebra II, Integrated I-III. (Student and Teachers' Editions for the Common Core State Standards for Mathematics)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Dixon, J. K.** Dixon, J. R. (2013). *A stroke of luck: A girl's second chance at life*. Finding Words Press: Chuluota, FL.
- Dixon, J. K.**, Adams, T. L., Larson, M., Leiva, M. (2012). *GO MATH! (Grades K – 6 Student and Teachers' Editions for the Common Core State Standards for Mathematics)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Dixon, J. K.**, Adams, T. L., Larson, M., Leiva, M. (2011). *GO MATH! (Grades K – 6 Student and Teachers' Editions)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Dixon, J. K.**, Adams, T. L., Larson, M., Leiva, M., McLeod, J. (2010). *GO MATH! Florida (Grades K – 6 Student and Teachers' Editions for Florida)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Maletsky, E. M., McLeod, J., Andrews, A. G., Bennett, J. M., Cordera-Epperson, M., **Dixon, J. K.**, Epperson, J. A., Luckie, L., Larson, M., Molina, D. D., Norwood, K. S., Newman, V., Scheer, J. K., Roby, T., Wright, D. (2010). *North Carolina Math (Grades 1 – 6 Student and Teachers' Editions)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Maletsky, E. M., McLeod, J., Andrews, A. G., Bennett, J. M., Cordera-Epperson, M., **Dixon, J. K.**, Epperson, J. A., Luckie, L., Larson, M., Molina, D. D., Norwood, K. S., Newman, V., Scheer, J. K., Roby, T., Wright, D. (2010). *South Carolina Math (Grades 1 – 6 Student and Teachers' Editions)*. Houghton Mifflin Harcourt Publishing Company: Orlando, FL.
- Maletsky, E. M., McLeod, J., Andrews, A. G., Cordero-Epperson, M., Epperson, J. A., Montalto, B., Norwood, K. S., Scheer, J. K., Wright, D. G., Bennett, J. M., **Dixon, J. K.**, Luckie, L., Molina, D. D., Newman, V., Roby, T. (2009). *HSP Math: Texas Edition (Grades 1 – 6 Student and Teachers' Editions)*. Harcourt School Publishers: Orlando, FL.

- Maletsky, E. M., McLeod, J., Andrews, A. G., **Dixon, J. K.**, Norwood, K. S., Roby, T., Scheer, J. K., Bennett, J. M., Luckie, L., Newman, V., Scarcella, R. C. & Wright, D. G. (2009). *HSP Math: California Edition (Grades 1 – 6 Student and Teachers' Editions)*. Harcourt School Publishers: Orlando, FL.
- Maletsky, E. M., McLeod, J., Norwood, K. S., Roby, T., Epperson, J. A., **Dixon, J. K.**, Scheer, J. K., Wright, D. G., Molina, D. D., Bennett, J. M., Luckie, L., Andrews, A. G., Newman, V., Montalto, B., Cordero-Epperson, M. (2009). *HSP Math: National Edition (Grades 1 – 6 Student and Teachers' Editions)*. Harcourt School Publishers: Orlando, FL.
- Dixon, J. K.** (2006). *Math Professional Development: Place Value and Operations – Decimals*. Orlando: Harcourt Inc. [with accompanying video]
- Dixon, J. K.** (2006). *Math Professional Development: Place Value and Operations – Whole Numbers*. Orlando: Harcourt Inc. [with accompanying video]
- Dixon, J. K.** (2005). *Math Professional Development: Fraction Operations*. Orlando: Harcourt Inc. [with accompanying video]
- \*Swan, B. A., **Dixon, J. K.** & Subedi, B. R. (2005). Middle-school teacher preparation, certification and students' mathematics achievement in a large urban school district. A Technical Report for The Multi-University Reading, Mathematics and Science Initiative. Tallahassee, FL: Florida State University, Learning Systems Institute.
- Dixon, J. K.** (2004). Florida's mathematics and science professional development program: 2003 final report for MSPD. Bureau of Grants and Management, Florida Department of Education.
- Dixon, J. K.** (2004). *Math Professional Development: Fraction Concepts*. Orlando: Harcourt Inc. [with accompanying video]
- Dixon, J. K.** & Adams, T. L. (2002). *Living spaces & learning places: Geometry in the city*. Professional Development Module. Orlando, FL: UCF Academy for Teaching, Learning, and Leadership.
- Hynes, M. E., **Dixon, J. K.**, & Adams, T. L. (2002). Investigations: Rubber-band rockets. *Teaching Children Mathematics* 8, 390-395. **Cover Article.**
- Dixon, J. K.**, Adams, T. L., & Hynes, M. E. (2001). Investigations: Controlling variables. *Teaching Children Mathematics* 8, 160-164.
- Dixon, J. K.** (2001). Technology tools for enhancing teaching, learning, and assessing mathematics. In J. Heddens & W. Speer *Today's mathematics*. New York, NY: John Wiley & Sons, Inc. 45-60.

**Dixon, J. K.** & Usnick, V. (1996). Reflections from research. In G. Musser & Burger, W. (Eds.) *Mathematics for elementary teachers: A contemporary approach*. Upper Saddle River, NJ: Prentice Hall.

**Dixon, J. K.** (1995). *English language proficiency and spatial visualization in middle school students' construction of the concepts of reflection and rotation using the Geometer's Sketchpad*. Unpublished doctoral dissertation. University of Florida.

### **Papers Presented at Professional Conferences**

#### **National/International Conferences (Peer Reviewed/Refereed)**

Dixon, A. P. & **Dixon, J. K.** (April 2014). *Key words help, inquiry won't work, and other myths*. Presentation at the annual meeting of the National Council of Teachers of Mathematics, New Orleans, LA.

**Dixon, J. K.** (April 2014). *What to expect when you're expecting – preparing middle school teachers*. Paper presented at the annual meeting of the National Council of Supervisors of Mathematics, New Orleans, LA.

**Dixon, J. K.** (April 2013). *When arguing is a good thing: The case of fractions*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Denver, CO.

**Dixon, J. K.** (April 2012). *Mathematical practices in action: Using video-supported professional learning communities*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Philadelphia, PA.

\*Sotillo-Jorge, M., \*Howse, T. & **Dixon, J. K.** (April 2012). *Fraction computation: Do we have the right story?* Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Philadelphia, PA.

**Dixon, J. K.** (April 2012). *Building professional learning communities around the mathematical practices through the use of video cases*. Paper presented at the annual meeting of the National Council of Supervisors of Mathematics, Philadelphia, PA.

**Dixon, J. K.** (April 2011). *Transforming teaching: Examples that take us from dissonance to depth*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Indianapolis, IN.

**Dixon, J. K.** (April 2011). *Transforming teaching: Examples that support taking teachers from dissonance to depth*. Paper presented at the annual meeting of the National Council of Supervisors of Mathematics, Indianapolis, IN.

\*Tobias, J., **Dixon, J. K.**, & Andreasen, J. B. (April 2010). *Telling the "whole" story: Making sense of fraction language*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. San Diego, CA.

- \*Roy, G. J., \*Tobias, J. M., \*Safi, F., & **Dixon, J. K.** (January 2010). *Prospective teachers' development of whole number concepts and operations*. Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Irvine, CA.
- Dixon, J. K.** (April 2009). *A leap of faith: Transitioning to a focused curriculum*. Paper presented at the annual meeting of the National Council of Supervisors of Mathematics. Washington, D.C.
- Dixon, J. K.** (April 2009). *Divide and conquer: Making sense of long division*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Washington, D.C.
- Dixon, J. K.** (April 2008). *Keeping track of time: Representing elapsed time on an open timeline*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Salt Lake City, UT.
- Nolan, E. C. & **Dixon, J. K.** (March 2008). *Technology applications in Student Math Notes*. Paper presented at the international conference of the Society for Information Technology and Teacher Education. Las Vegas, NV.
- Andreasen, J. B. \*Roy, G. \*Safi, F., \*Tobias, J. & **Dixon, J. K.** (January 2008). *Prospective teachers' development of mathematical knowledge for teaching related to number and operations*. Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Tulsa, OK.
- Dixon, J. K.** (September 2007). *Classroom teaching experiments in the background: A framework for preparing doctoral students as reflective teachers and researchers*. Poster presented at the National Conference for Doctoral Programs in Mathematics Education. Kansas City, MO.
- Dixon, J. K.** and \*Bray, W. S. (March 2007). *Using mental imagery as a framework for comparing fractions*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Atlanta, GA.
- Dixon, J. K.**, Andreasen, J. B., and Stephan, M. (March 2007). *Establishing norms in an undergraduate elementary mathematics content course*. Paper presented at the research pre-session of the annual meeting of the National Council of Teachers of Mathematics. Atlanta, GA.
- Dixon, J. K.**, \*Andreasen, J. B., \*Wheeldon, D., Stephan, M., and \*Roy, G. (April 2006). *Implementing design-based research: Research that changes practice*. Paper presented at the research pre-session of the annual meeting of the National Council of Teachers of Mathematics. St. Louis, MO.
- Dixon, J. K.**, (February 2006). *Putting research INTO practice: Design research in preservice mathematics education*. Paper presented at the annual meeting of the Research Council on Mathematics Learning. Las Vegas, NV.

\*Andreasen, J. B., \*Roy, G., and **Dixon, J. K.** (January 2006). *Explaining algorithms: What do preservice teachers need to know?* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. Tampa, FL.

**Dixon, J. K.** & \*Roy, G. J. (January 2005). *Examining preservice teachers' selection of and facility with three models for fraction operations.* Paper presented at the annual conference of the Association of Mathematics Teacher Educators. Dallas, TX.

**Dixon, J. K.** (October 2004). *Mathematics and science teacher authors: Writing stories – posing problems.* Paper presented at the annual convention of the School Science and Mathematics Association. Atlanta, GA.

**Dixon, J. K.** (January 2004). *Lessons learned from a three-year statewide mathematics and science professional development program.* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators. San Diego, CA.

**Dixon, J. K.** (October 2003). *Mathematics and science professional development: A statewide model for increasing student achievement.* Paper presented at the annual convention of the School Science and Mathematics Association. Columbus, OH.

Hynes, M. C., **Dixon, J. K.**, & Lewis, N. S. (October 2003). *Locating and benchmarking integrated mathematics and sciences Masters' Degrees.* Paper presented at the annual convention of the School Science and Mathematics Association. Columbus, OH.

Hynes, M. & **Dixon, J. K.** (April 2003). *Motivating math with Mission Math II.* Paper presented at the annual meeting of the National Council of Teachers of Mathematics. San Antonio, TX.

Adams, T. L. & **Dixon, J. K.** (April 2003). *What shape are you in? Geometry in the City.* Paper presented at the annual meeting of the National Council of Teachers of Mathematics. San Antonio, TX.

**Dixon, J. K.** (April 2002). *What questions do you have? Students' questions as part of the problem-solving experience.* Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Las Vegas, NV.

Hynes, M. C. & **Dixon, J. K.** (April 2002). *NASA and NCTM's New Mission Mathematics and Principles and Standards.* Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Las Vegas, NV.

**Dixon, J. K.** (November 2001). *An inquiry approach to graphing.* Paper presented at the annual meeting of the School Science and Mathematics Association. Downer's Grove, IL.

**Dixon, J. K.** (April 2001). *Tool time: Using technology and manipulatives to introduce concepts.* Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Orlando, FL.

- Dixon, J. K.** & Johnson, J. (March 2001). *Cyber spaces and learning places: The role of technology in inquiry*. Paper presented at the international meeting of the Society for Information Technology and Teacher Education. Orlando, FL
- Dixon, J. K.** & \*Govett, A. (October 1999). *Integrating technology into preservice teacher education*. Paper presented at the annual meeting of the School Science and Mathematics Association. Greensboro, NC.
- Dixon, J. K.** & Speer, W. R. (October 1999). *A collaborative model for integrating dynamic drawing technology into geometry classrooms*. Paper presented at the annual meeting of the School Science and Mathematics Association. Greensboro, NC.
- Dixon, J. K.** & \*Ruetten, M. M. (April 1999). *A logical journey - Connecting computer-based activities to the classroom*. Paper presented at the National Council of Teachers of Mathematics. San Francisco, CA.
- Dixon, J. K.** (February 1999). *Establishing relationships between pre and inservice teachers to facilitate the integration of technology in geometry instruction*. Paper presented at the annual meeting of the Research Council on Mathematics Learning. College Station, TX.
- Speer, W. S., **Dixon, J. K.** & \*Falba, C. (April 1998). *Harvesting the WWW for student-generated investigations*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Washington, D.C.
- Dixon, J. K.** & \*Ruetten, M. M. (April 1998). *Meeting the national challenge: Leading teachers to algebraic reasoning*. Paper presented at the annual meeting of the National Council of Supervisors of Mathematics. Washington, D.C.
- Dixon, J. K.** (February 1998). *Enhancing secondary teachers' manipulative-based teaching repertoire*. Paper presented at the annual meeting of the Research Council for Diagnostic and Prescriptive Mathematics. College Park, MD.
- Dixon, J. K.** (April 1997). *Ours is to reason why, not just invert and multiply*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Minneapolis - Saint Paul, MN.
- Dixon, J. K.** (March 1997). *Cybersurfing: A new professor catches the wave*. In C. Falba (Chair), *Choreographing change one step at a time: Integrating technology in teacher education*. Symposium conducted at the annual meeting of the American Educational Research Association. Chicago, IL.
- Usnick, V., **Dixon, J. K.** & Ford, M. S. (February 1997). *Calculated responses: Identifying teachers' misconceptions through calculator-based activities*. Paper presented at the annual meeting of the Research Council for Diagnostic and Prescriptive Mathematics. Oklahoma City, OK.

**Dixon, J. K.** (April 1996). *The changing role of the teacher in the computer lab*. Paper presented at the annual meeting of the National Council of Supervisors of Mathematics. San Diego, CA.

**Dixon, J. K.** (February 1996). *Diagnosing middle school students' interactions with multiple representations in the context of geometry*. Paper presented at the annual meeting of the Research Council for Diagnostic and Prescriptive Mathematics. Melbourne, FL.

**Dixon, J. K.** (October 1995). *Construction of concepts of transformations using technology in a language diverse classroom*. Paper presented at the annual meeting of the Psychology of Mathematics Education - North American Chapter. Columbus, OH.

**Dixon, J. K.** (April 1995). *The effectiveness of The Geometer's Sketchpad in teaching students with limited English proficiency*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Boston, MA.

### **Regional/State/Local Conferences (Peer Reviewed/Refereed)**

**Dixon, J. K.** & Dixon, A. P. (October 2013). *"Key words help," "inquiry won't work," and other myths*. Paper to be presented at the annual meeting of the Florida Council of Teachers of Mathematics. Orlando, FL.

**Dixon, J. K.** (November 2013). *It's not about you: Shifting the focus of instruction*. Paper presented at the National Council of Teachers of Mathematics Regional Conference. Louisville, KY.

**Dixon, J. K.** (October 2013). *It's not about you: Shifting the focus of instruction*. Paper presented at the National Council of Teachers of Mathematics Regional Conference. Baltimore, MD.

**Dixon, J. K.** (November 2011). *Making sense of multiplication and division*. Paper presented at the Orange County Council of Teachers of Mathematics Mini Conference. Orlando, FL.

**Dixon, J. K.** (November 2011). *Making sense of fractions in the Common Core*. Paper presented at the Orange County Council of Teachers of Mathematics Mini Conference. Orlando, FL.

**Dixon, J. K.** (October 2011). *Empowering young learners through the standards for mathematical practice*. Paper presented at the Florida Council of Teachers of Mathematics. Jacksonville, FL.

**Dixon, J. K.** (October 2010). *Making sense of word problems*. Paper presented at the Florida Council of Teachers of Mathematics. Orlando, FL.

Akyuz, D. & **Dixon, J. K.** (October 2009). *Supporting teachers as they develop technology-based lessons for geometry instruction*. Paper presented at the Florida Association of Teacher Educators Annual Conference. Daytona Beach, FL.

- Dixon, J. K.** (October 2008). *Teaching to greater depth: Making sense of the new math standards*. Paper presented at the Florida Council of Teachers of Mathematics Annual Conference. Jacksonville, FL.
- Dixon, J. K.** (October 2008). *Keeping track of time: Representing elapsed time on an open timeline*. Paper presented at the Florida Council of Teachers of Mathematics Annual Conference. Jacksonville, FL.
- Dixon, J. K.** & \*Bray, W. (August 2007). *Using mental imagery as a framework for comparing fractions*. Paper presented at the Orange County Public Schools' Back-to-School Professional Development Conference. Orlando, FL.
- Dixon, J. K.,** Clark, T. & Schoen, R. (August 2007). *Getting to know the new Florida math standards*. Paper presented at the Orange County Public Schools' Back-to-School Professional Development Conference. Orlando, FL.
- Dixon, J. K.** & Andreasen, J. B. (April 2007). *Establishing social norms in an undergraduate elementary mathematics class*. Poster presented at the Scholarship of Teaching and Learning Showcase for the Faculty Center for Teaching and Learning. University of Central Florida. Orlando, FL.
- Dixon, J. K.,** \*Andreasen, J. B., & \*Swan, B. A. (October 2003). *Mathematics and Science Professional Development Program*. Paper presented at the annual meeting of Florida Council of Teachers of Mathematics. Indialantic, FL.
- Dixon, J. K.** & Bamberger, A. W. (January 2003). *Mathematics and Science Professional Development Program*. Report Presented at the Annual Curriculum and Assessment Leadership Conference of the Florida Department of Education, the Florida Association of Instructional Supervisors and Administrators, and the Florida Association of School Administrators. St. Petersburg, FL.
- Bamberger, A. W. & **Dixon, J. K.** (January 2003). *MSPD*. Report Presented at the annual meeting of the Joint Statewide Provider's. Daytona Beach, FL.
- Dixon, J. K.** (October 2002). *Mathematics and Science Professional Development Program*. Report presented at the annual meeting of the Florida Association of Mathematics Supervisors. Orlando, FL.
- Adams, T.L. & **Dixon, J. K.** (October 2002). *What shape are you in? Geometry in the city*. Paper presented at the annual meeting of the Florida Council of Teachers of Mathematics. Orlando, FL.
- Dixon, J. K.** (October 2001). *Folding a truncated tetrahedron for FCAT practice*. Paper presented at the annual meeting of the Florida Council of Teachers of Mathematics. Orlando, FL.



- Dixon, J. K.** (October 2000). *Classifying, sorting, and predicting activities for a one-computer classroom*. Paper presented at the annual meeting of the Florida Council of Teachers of Mathematics. Sarasota, FL.
- Dixon, J. K.** & \*Glickman, C. L. (November 1998). *A cooperative model for preservice and inservice collaboration using technology in geometry*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Western Region. Reno/Sparks, NV.
- Dixon, J. K.** (November 1998). *Modeling algebraic concepts*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Western Region. Reno/Sparks, NV.
- Speer, W. S. & **Dixon, J. K.** (March 1998). *Student-generated investigations on the WWW*. Paper presented at the annual meeting of the Southern Nevada Mathematics Council. Las Vegas, NV.
- Dixon, J. K.** (March 1997). *Zoombinis: What a trip!* Paper presented at the annual meeting of the Southern Nevada Mathematics Council Annual Conference. Las Vegas, NV.
- Dixon, J. K.** (October 1996). *An adventure in logic: The Logical Journey of the Zoombinis*. Paper presented at the annual meeting of the Computer Using Educators of Southern Nevada. Las Vegas, NV.
- Dixon, J. K.** (October 1995). *Introduction to The Geometer's Sketchpad*. Paper presented at the annual meeting of the Computer Using Educators of Southern Nevada. Las Vegas, NV.
- Dixon, J. K.** (September 1995). *Strategies for teaching mathematics to limited English proficient students*. Paper presented at the annual meeting of the California Association of Teachers of Speakers of Other Languages. Las Vegas, NV.
- Dixon, J. K.** (March 1995). *English language proficiency and spatial visualization in middle school students' construction of the concepts of reflection and rotation using The Geometer's Sketchpad*. Paper presented at the University of Florida Graduate Student Forum. Gainesville, FL.
- Kantowski, M. G., Robinson, S., Adams, T. L., **Dixon, J. K.**, & Issacson, J. (March 1993). *Assessing mathematical problem solving from multiple perspectives*. Paper presented at the Florida Educational Research Council William F. Breivogel Conference on Alternative/Portfolio Assessment. Gainesville, FL.

### **Invited Presentations**

- Dixon, J. K.** (August, 2013). *Transitioning to the content of the Common Core*. Keynote presentation for the School District of Palm Beach County K-12 Mathematics Preschool Conference. Palm Beach, FL.

- Dixon, J. K.** (January, 2013). *Transforming teaching: Choreographing change one step at a time*. Presentation for the Florida Association of Mathematics Supervisors. Orlando, FL.
- Dixon, J. K.** (October, 2012). *Engaging students in the Standards for Mathematical Practice of the Common Core*. Featured presentation for the Georgia Mathematics Conference. Eatonton, GA.
- Dixon, J. K.** (October, 2012). *Transforming teaching through the Standards for Mathematical Practice in Grades K-5*. Featured presentation for the Florida Council of Teachers of Mathematics. Orlando, FL.
- Dixon, J. K.** (October, 2012). *Transforming teaching through the Standards for Mathematical Practice in Grades 6-12*. Featured presentation for the Florida Council of Teachers of Mathematics. Orlando, FL.
- Dixon, J. K.** (September, 2012). *The Lockheed Martin Academy for K-8 Mathematics and Science*. Presentation for the American Association of Colleges of Teacher Education (AACTE). Orlando, FL.
- Dixon, J. K.** (July, 2012). *Transitions to the CCSS Mathematics in a PLC: The impact on your K-8 mathematics program*. Presentation at the 2012 PLC Institute for Solution Tree. Orlando, FL.
- Dixon, J. K.** (May, 2012). *Making sense of the Common Core State Standards for Mathematics*. Presentation at the UCF Summer Faculty Development Conference. Orlando, FL.
- Dixon, J. K.** (April, 2012). *Errors as springboards to teacher change*. Ignite! Presentation at the Key Press Ignite! Session at the National Council of Supervisor of Mathematics Annual Meeting. Philadelphia, PA.
- Dixon, J. K.** (January, 2012). *Drilling down: Using learning trajectories to make sense of data*. Presentation at the Florida Association of Mathematics Supervisors Biannual Meeting. Orlando, FL.
- Dixon, J. K.** (January, 2012). *Creating videos: Qualitative complements to data teams*. Presentation at the Florida Association of Mathematics Supervisors Biannual Meeting. Orlando, FL.
- Dixon, J. K.** (November, 2011). *Engaging students in the standards for mathematical practice of the common core*. Keynote presentation at Superintendents Day. Elmont, NY.

- Dixon, J. K.** (March, 2011). *Teaching for depth across the grades: A natural progression*. Presentation at Framing the future: Common Core State Standards symposium for mathematics. Philadelphia, PA.
- Dixon, J. K.** (February, 2011). *Teaching for depth across the grades: A natural progression*. Presentation at Framing the future: Common Core State Standards symposium for mathematics. Scottsdale, AZ.
- Dixon, J. K.** (February, 2011). *Teaching for depth across the grades: A natural progression*. Presentation at Framing the future: Common Core State Standards symposium for mathematics. Chicago, Ill.
- Dixon, J. K.** (February, 2011). *Empowering young learners through the Standards for Mathematical Practice*. Paper presented at the Florida Association of Mathematics Supervisors. Orlando, FL.
- Dixon, J. K.** (April 2010). *Transforming teaching: From dissonance to depth*. Keynote presentation at the annual meeting of the National Council of Supervisors of Mathematics. San Diego, CA.
- Dixon, J. K.** (June 2009). *Digging deeper with the Next Generation Sunshine State Standards*. Keynote presentation for the first annual Northwest Florida STEM Conference. Niceville, FL.
- Dixon, J. K.** (November 2008). *Teaching to depth: Implementing the Next Generation Sunshine State Standards*. Keynote presentation for the annual conference of the Santa Rosa County Council of Teachers of Mathematics. Milton, FL.
- Dixon, J. K.** (May 2008). *Issues related to implementation of the new K-8 Florida Mathematics Standards*. Invited presentation to the Executive Board of the Florida Council of Teachers of Mathematics. Orlando, FL.
- Fennell, F., Reys, B., Milgram, R. J. **Dixon, J. K.**, & Kersaint, G. (April 2008). *The Focal Points and curriculum coherence: What's needed? What's going on?* Paper presented at the annual meeting of the National Council of Teachers of Mathematics. Salt Lake City, UT.
- Dixon, J. K.** (April 2008). *Making "cents" of mathematic*. Invited presentation for the Houghton Mifflin Harcourt Publishers Exhibit Hall Booth. Presented at the annual meeting of the National Council of Teachers of Mathematics. Salt Lake City, UT.
- Dixon, J. K.** & Clark, T. (February 2008). *Florida's New World Class Education Mathematics Standards Overview*. Countywide meeting of Seminole County Public School District Principals, Assistant Principals, and Teacher Leaders. Lake Mary, FL.

- Kepner, H. S., Waits, B., Clark, T., & **Dixon, J. K.** (November 2007). *Reforms, challenges, and Florida's revised mathematics standards*. Professional development for district leaders focused on national and state perspectives. The University of Central Florida Academy for Teaching, Learning and Leadership. Orlando, FL.
- Dixon, J. K.** (January 2007). *K – 8 mathematics standards: The writing process, intent of the document, organizational structure, and work remaining*. Presentation to the Board Meeting of the Florida Association of Mathematics Supervisors and the Florida Council of Teachers of Mathematics. Orlando, FL.
- Dixon, J. K.** (May 2006). *Supporting student learning through classroom discourse*. Paper presented for the Teacher Excellence Panel at the Faculty Development Summer Institute for the Faculty Center for Teaching and Learning. University of Central Florida. Orlando, FL.
- Dixon, J. K.** & Stephan, M. (February 2006). *Implementing design-based research in a university setting*. Paper presented at a workshop for the Faculty Center for Teaching and Learning. University of Central Florida. Orlando, FL
- Dixon, J. K.** (June 2003). *Mathematics and Science Professional Development Program*. Report presented to the Executive Committee of the Florida Education Standards Commission. Orlando, FL
- Dixon, J. K.** (October 2001). *Paper folding for FCAT practice*. Invited paper presented at the Professional Development Day for Senior Interns, University of Central Florida. Orlando, FL.
- Dixon, J. K.** (November 1998). *The Nevada Mathematics Standards: Impact on grades 5-8*. Panelist at the annual meeting of the National Council of Teachers of Mathematics, Western Region. Reno/Sparks, NV.
- Dixon, J. K.** (June 1996). *Computer assisted instruction: Ideas and programs*. Keynote address presented at the K - 12 Math Leaders Institute on Technology. Las Vegas, NV.
- Dixon, J. K.** *Guess my job*. (March 1996). Invited panelist for the annual meeting of Expanding Your Horizons. Las Vegas, NV.
- Dixon, J. K.** (November 1995). *Introduction to the World Wide Web*. Invited Paper presented at the annual meeting of the Nevada League of Middle Level Education. Las Vegas, NV.
- Dixon, J. K.** (October 1995). *The mathematics instruction of LEP students*. Invited paper presented at the joint meeting on Teaching and Teacher Education sponsored by Nevada AACTE, ATE, ASCD, PDK, and Accelerated Schools. Las Vegas, NV.
- Dixon, J. K.** (July 1995). *Geometer's Sketchpad activities*. Invited paper presented at the Nevada High School Mathematics Institute for the State of Nevada Department of Education. Reno, NV.

## Consultations

### Selected Professional Development

- Dixon, J. K.** (2012 - 2014). *Engaging Students in the Standards for Mathematical Practice of the Common Core*. Anchorage School District, Anchorage, AK; Manatee County, Bradenton, FL; Bridgeport, CT; Broward County, Fort Lauderdale, FL; Seminole County, Sanford, FL; Islip, Long Island, NY; Pinellas, County, FL; Pasco County, FL; Norwalk, CT; Okaloosa County, Niceville, FL; Escambia County, Pensacola, FL; Osceola County, FL; Polk County, FL.
- Dixon, J. K.** (2011). *The Common Core State Standards for Mathematics*. Tewksbury Public Schools, Tewksbury, MA; Alabama Department of Education Mega Conference, Mobile, AL; Dover, DE; Hillsborough County Public Schools, Tampa, FL; Osceola County Public School, Kissimmee, FL, Seminole County Public Schools, Oviedo, FL; Pasco County Public Schools, Land-O-Lakes, FL; Birmingham, AL.
- Dixon, J. K.** (2008 - 2011). *The Next Generation Sunshine State Standards for Mathematics*, Bay County Public Schools, Broward County Public Schools, Clay County Public Schools, Columbia County Public Schools, Duval County Public Schools, Escambia County Public Schools, Hillsborough County Public Schools, Imagine Charter Schools, Lake County Public Schools, Leon County Public Schools, Martin County Public Schools, Miami-Dade County Public Schools, Nassau County Public Schools, Okaloosa County Public Schools, Osceola County Public Schools, Palm Beach County Public Schools, Pasco County Public Schools, Pinellas County Public Schools, Santa Rosa County Public Schools, Sarasota County Public Schools, Seminole County Public Schools, St. John's County Public Schools, and Volusia County Public Schools. Presented new Florida mathematics standards to administrators and/or elementary mathematics teachers at each of the aforementioned districts.
- Dixon, J. K.** (2009), *Teaching Geometry and Measurement with Depth*. School District of Broward County, FL. Provided a half-day workshop to Elementary Mathematics Specialists.
- Dixon, J. K.** (2009), *Making Sense of the Depth of Content Knowledge by Exploring Fractions and Elapsed Time*. School District of Broward County, FL. Provided two half-day workshops to Elementary Mathematics Specialists.
- Dixon, J. K.** (2008), *Fraction Concepts and Operations Professional Development Series*. School District of Indian River County, FL. Provided four full-day workshops to grades 3 – 8 teachers based on Harcourt Professional Development Series (Dixon, 2004, 2005).

- Dixon, J. K.** (2008). *Mathematics Professional Development Program*. Wendell Gifted and Talented Magnet Elementary School and York Elementary School, Wake County Public Schools, NC. Provided support through monthly grade-level (2-5) specific meetings focused on teacher content knowledge and model teaching in teachers' classes.
- Dixon, J. K.** (2008). *Mathematics Professional Development for New Florida Mathematics Standards*, Martin County Public Schools, FL. Presented new Florida mathematics standards to a group consisting of superintendent and all principals in the county and then provided follow-up, school-based professional development at the school level.
- Dixon, J. K.** (2008). *Mathematics Professional Development for New Florida Mathematics Standards*, Seminole County Public Schools, FL. Presented new Florida mathematics standards to a group consisting of all principals and assistant principals in the county and then provided follow-up, school-based professional development for elementary school teachers of several principals in attendance.
- Dixon, J. K.** (January 2008). *QUEST for access to meaningful mathematics knowledge through co-teaching*. Urban Special Education Leadership Collaborative, Education Development Center, Inc., Madison WI. Presentation provided to middle school special education and mathematics teachers and administrators related to supporting students' mathematics learning.
- Dixon, J. K.** (2007-2008), *Fraction Concepts and Operations Professional Development Series*. Orange County Public Schools, FL. Provided three sets of 3-5 day workshops based on Harcourt Professional Development Series (Dixon, 2004, 2005). Repeat workshops were offered as a result of positive feedback from grades 3-8 teachers and administrators.
- Dixon, J. K.** (2007-2008). *Mathematics Professional Development Program*, Lake Weston and Rolling Hills Elementary Schools, Orange County Public Schools, FL. Provided support for two schools in a collaborative setting through monthly grade-level (3-5) specific meetings focused on teacher content knowledge.
- Dixon, J. K.** (2005-2008). *Comprehensive Mathematics Professional Development Program*, Orlo Vista Elementary School, Orange County Public Schools, FL. During year one, provided support through grade level (3-5) specific meetings focused on teacher content knowledge. Expanded support in year two to include model teaching in teachers' classes. Year three consisted of workshops for new teachers or teachers new to grade level and model/co-teaching in teachers' classes. School advanced from a "grade" of "C" by the state school grading system to a "grade" of "A" based on improvement in mathematics scores.

- Dixon, J. K.** (2006-2007). *Mathematics Professional Development Program*, Grand Avenue Primary Learning Center, Orange County Public Schools, FL. Assisted teachers and administration in transitioning from an elementary school for grades K-5 to a primary learning center for grades preK-2 by supporting developing teacher content knowledge for teaching mathematics to young learners and by overseeing selection of school-wide assessment tools for mathematics.
- Dixon, J. K.** (February 2007). *Making “cents” of mathematic*. Invited presentation for the Urban Teacher Institute, University of Central Florida, FL. Presentation provided to early career teachers focused on making mathematics instruction meaningful.
- Dixon, J. K.** (December 2006). *QUEST for access to meaningful mathematics knowledge through co-teaching*. Urban Special Education Leadership Collaborative, Education Development Center, Inc., Madison WI. Presentation provided to middle school special education and mathematics teachers and administrators related to supporting students’ mathematics learning.
- Dixon, J. K.** (2006), *Mathematics Professional Development Program*, Palmetto Elementary School, Orange County Public Schools, FL. Provided support for teachers and administrators to restructure school schedule and professional development plans based on student performance data in mathematics.
- Dixon, J. K.** (2005-2006). *Mathematics Professional Development Program*, Central Learning Community, Orange County Public Schools, FL. Provided monthly full-day grade-level specific workshops focused on content knowledge for teaching mathematics for all grades 3-5 teachers in all schools that did not receive “passing” grades on state grading system in the Central Learning Community.
- Dixon, J. K.** (2003-2006). *Mathematics Professional Development Program*, Engelwood Elementary School, Orange County Public Schools, FL. During year one, provided support through grade band (3-5) meetings focused on teacher content knowledge. Expanded support in year two to include grade-level (3-5) specific workshops and model teaching in teachers’ classes. Year three consisted of workshops for new teachers or teachers new to grade level and model/co-teaching in teachers’ classes.
- Dixon, J. K.** (2004). *Mathematics Professional Development Program*, Lovell Elementary School, Orange County Public Schools, FL. Provided support through monthly grade band (K-2, 3-5) meetings focused on teacher content knowledge.
- Dixon, J. K.** (2003). *Making mathematics meaningful*. Invited presentation to Escambia County Mathematics Leaders, FL.
- Dixon, J. K.** (2002). *Living spaces and learning places: Geometry in the city*. Facilitated workshop for grades 3-5 teachers with the Area Center for Educational Enhancement (ACEE) Region 5, FL.

- Dixon, J. K.** (2002). *Developing the Developers*. Facilitated workshop to prepare professional development leaders for the statewide Mathematics and Science Professional Development Project. Orlando, FL.
- Dixon, J. K.** (2001). *Making mathematics meaningful*. Keynote address for the Mathematics Teacher Inservice Day, Volusia County, FL.
- Dixon, J. K.** (2001). Workshop Facilitator, Secondary Mathematics Teacher Workshop. Volusia County, FL.
- Dixon, J. K.** (2000-2001). *Mathematics Professional Development Program*. Area Center for Educational Enhancement (ACEE) Region 3, FL. Provided 4-day workshops focused on content for teaching mathematics for grades 3-5 mathematics teachers.
- Dixon, J. K.** (February 1997). *Momma said there'd be days like this: integrating technology into mathematics instruction*. Keynote presentation for the Computer Curriculum Corporation. Atlanta, GA.

### **Advisory Support**

- Dixon, J. K.** (2012-2014). *Author and Team Member*, Common Core Mathematics and School Leadership Group. Solution Tree.
- Dixon, J. K.** (2014). *Author Team Member*. Houghton Mifflin Harcourt Publishers, Open Territory, Grades 6 - 12.
- Dixon, J. K.** (2010-2011). *Conceptualizing Team Member*. Houghton Mifflin Harcourt Publishers, Grades 6 – 12.
- Dixon, J. K.** (2009-2012). *Author Team Member*. Houghton Mifflin Harcourt Publishers, Open Territory, Grades K – 6.
- Dixon, J. K.** (2008-2010). *Author Team Member*. Houghton Mifflin Harcourt Publishers. Florida Mathematics Program, Grades K – 5.
- Dixon, J. K.** (2007-2008). *Florida Standards Alignment*. Houghton Mifflin Harcourt Publishers. Florida Mathematics Program, Grades K – 5.
- Dixon, J. K.** (2006-2008). *Research Advisor for HSP Math*. Harcourt School Publishers.
- Dixon, J. K.** (2003-2004). *Advisory Board Member, Professional Development Symposium for Mathematics*. Harcourt, Inc.
- Dixon, J. K.** (2004). *Advisory Board Member, Problem Solving Summit for Mathematics*, Harcourt, Inc.
- Dixon, J. K.** (2002). *Focus Group Participant*. Key College focus group on middle level mathematics certification.



## **Writing/Reviewing**

- Dixon, J. K.** (2014). *Book Review: It's TIME: A leadership framework for Common Core Mathematics*. Solution Tree Press and National Council of Teachers of Mathematics.
- Dixon, J. K.** (2012). *Book Review: What principals need to know about teaching and learning mathematics*. Solution Tree Press.
- Dixon, J. K.** (2011). *Book Review: Teaching by design in elementary mathematics, grades K-1*. National Council of Teachers of Mathematics.
- Dixon, J. K.** (2011). *Book Reviewer*. Solution Tree Press.
- Dixon, J. K.** (2007). *Book Reviewer*. Merrill, Prentice Hall.
- Dixon, J. K.** (2003, 2006). *Book Reviewer*. Pearson Addison-Wesley.
- Dixon, J. K.** (2003). *Book Reviewer*. John Wiley & Sons, Inc.
- Dixon, J. K.** (2003). *Curriculum Writer*. Area Center for Educational Enhancement (ACEE) Region 3, FL. Wrote curriculum for use by grades 3-5 mathematics professional development facilitators in central Florida.
- Dixon, J. K.** (2001-2002). *Curriculum Writer*. Mathematics Task Force for the statewide Mathematics and Science Professional Development Project, Orlando, FL. Wrote curriculum for use by grades 3-5 mathematics professional development facilitators in throughout Florida.
- Dixon, J. K.** (1998-1999). *Curriculum Developer and Workshop Facilitator*, Targeted Instructional Materials for Nevada Mathematics Standards, NV.

## **UNIVERSITY TEACHING**

### **Graduate Courses Taught at the University of Central Florida**

MAE 7795 Seminar on Research in Mathematics Education – This course is required in the doctoral program for students in mathematics education track. Course focused on topics in research in mathematics education. Seminar topics have included content knowledge for teaching mathematics and social and sociomathematical norms necessary to develop teachers who communicate mathematically by explaining and justifying mathematical ideas.

IDS 7500 Seminar in Education Research – This course is required in the doctoral program. Students in the mathematics education track participate in classroom teaching experiments. This course is centered around the research meetings that are a major component of those experiments.

IDS 6937 Reflecting on Instruction in Mathematics and Science – This course is required in the M.Ed. in K-8 Mathematics and Science program. A requirement of this program is for students to complete a thesis based on action research. This course is designed to help students conceptualize their theses and complete their proposals including seeking Institutional Review Board (IRB) approval.

IDS 6933 Seminar in Teaching Mathematics and Science – This course is required in the M.Ed. in K-8 Mathematics and Science program. Students explore inquiry-based teaching strategies and apply what they learn in their own classes.

IDS 6910 Research Seminar in Mathematics and Science Education – This course is required in the M.Ed. in K-8 Mathematics and Science program and an elective for other masters and doctoral programs in mathematics and science education. It is designed to support graduate students in mathematics and science education as they plan and/or implement research projects.

MAE 6899 Seminar in Teaching Mathematics – This course is required in the M.Ed. in K-8 Mathematics and Science program and an elective for other masters and doctoral programs in mathematics education. It is focused on content for teaching K-8 mathematics. Students explore whole number concepts and operations in base 8 and then move back to base 10 as they develop deep understanding of fraction concepts and operations. Emphasis is also placed on developing conceptual understanding of measurement and geometry.

MAE 6641 Problem Solving and Critical Thinking Skills – This course is required in the M.Ed. in K-8 Mathematics and Science program and an elective for other masters and doctoral programs in mathematics education. Students solve problems, write problem-solving based storybooks for their students, and respond to problem-solving based journal articles.

IDS 6516 Leadership Development for Math and Science Teaching – The course serves as a capstone course for students pursuing a Master's degree in K-8 Mathematics and Science in the Lockheed-Martin/UCF Academy for Mathematics and Science as well as for those pursuing a Master's degree in Mathematics Education or Science Education. Mathematics and science teachers study the roles of teacher leaders, determine their readiness to assume those roles, and identify factors within the school culture that enhance or inhibit teachers' abilities to lead from the classroom.

MAE 6318 Current Methods of Elementary School Mathematics – This course is required in the M.A. in Elementary Education. Students explore strategies of instruction grounded by the Next Generation Sunshine State Standards for Mathematics as well as the Common Core State Standards for Mathematics for computation and concepts of number, geometry, and measurement and instructional materials.

MAE 5318 Current Methods of Elementary School Mathematics – This course is required in the M.A. in Elementary Education. Students explore strategies of instruction for computation and concepts of number, geometry, and measurement and instructional materials.

## **Undergraduate Courses Taught at the University of Central Florida**

MAE 4326 How Children Learn Mathematics – This course is required in the elementary education program. It is taught concurrently with a junior internship. Students spend two days per week in schools assigned to a teacher from one of the two grade bands, k-2 or 3-5. The student is then assigned to the other grade band the second half of the semester. The students spend one full-week in the schools each half semester during which time the student teaches a lesson or combination of lessons based on materials covered in mathematics methods.

MAE 2801 Elementary School Mathematics – This course is required for elementary education and exceptional education majors. Students explore whole number concepts and operations in base 8 and then move back to base 10 as they develop deep understanding of fraction concepts and operations. Emphasis is also placed on developing conceptual understanding of measurement and geometry.

## **Graduate Courses Taught at the University of Nevada, Las Vegas**

ICS 772 Seminar in Curriculum and Instruction: Mathematics Education – This course was designed for both masters and doctoral-level students to focus on specific topics in mathematics education. Students completed and presented literature reviews on topics relative to mathematics education.

ICS 723 Applications of Technology in Secondary Mathematics – This course was focused on the exploration of technology appropriate for use in mathematics instruction along with issues related to the integration of technology in mathematics instruction. Research was examined related to these topics.

ICS 722 Instructional Methods in Secondary School Mathematics – This course emphasized research and curriculum studies dealing with content and procedures of secondary school mathematics programs as well as methods for teaching secondary mathematics.

ICS 721 Instructional Methods in Middle School Mathematics – This course emphasized research and curriculum studies dealing with content and procedures of middle school mathematics programs as well as methods for teaching middle school mathematics.

ICS 712 Special Topics: Teaching with the Geometer's Sketchpad – This course emerged from grant work focused on supporting teachers' integration of technology in geometry instruction. Students explored content for teaching geometry using dynamic drawing technology and then planned for implementation of similar experiences with their students.

ICS 712 Special Topics: Teaching Algebra in Grades 7-12 – This course focused on the use of calculator technology for teaching algebra. Students explored the use of graphing calculators and calculator-based laboratories as they deepened their knowledge for teaching algebra.

ICS 712 Special Topics: Modeling Mathematics Concepts in Grades 7-12 – This course provided opportunities for students to explore the use of manipulatives in secondary mathematics instruction. Particular attention was given to deepening teachers' knowledge for teaching mathematics through focus on representations in mathematics.

ICG 755 Computers in the Secondary Curriculum – This course was focused on the exploration of technology appropriate for use in secondary instruction along with issues related to the integration of technology in instruction.

### **Undergraduate Courses Taught at the University of Nevada, Las Vegas**

ICS 416 Teaching Secondary Mathematics – This course emphasized research and curriculum studies dealing with content and procedures of secondary school mathematics programs as well as methods for teaching secondary mathematics.

ICS 334 Survey of Computer Uses in Secondary Education – This course was focused on the exploration of technology appropriate for use in secondary instruction along with issues related to the integration of technology in instruction.

ICE 334 Survey of Computer Uses in Elementary Education – This course was focused on the exploration of technology appropriate for use in elementary instruction along with issues related to the integration of technology in instruction.

### **Doctoral Dissertation, Master's Thesis, and Honors' Thesis Committees**

\* denotes a graduate student with whom I have co-authored and/or co-presented.

### **Chair**

Glenn-White, V. (in progress). *Using phenomenology and action research to assist instructional leaders with evaluations elementary mathematics teachers*. Unpublished doctoral dissertation. University of Central Florida.

Sahin, N. (in progress). *Effects of Cognitively Guided Instruction on first and second grade students' problem solving strategies*. Unpublished doctoral dissertation. University of Central Florida.

\*Deichert, D. (2014). *Nurses internal and external representations of dosage calculations: Discovering connections*. Unpublished doctoral dissertation. University of Central Florida.

\*Brooks, L. (2014). *Changing a norm in a first grade mathematics class*. Unpublished doctoral dissertation. University of Central Florida.

- \*Sotillo, M. (2014). *The effects of targeted professional development on teachers' implementation of the Standard for Mathematical Practice construct viable arguments and critique the reasoning of others*. Unpublished doctoral dissertation. University of Central Florida.
- Childs, K. (2013). *A comparison of parental and children's mathematics attitudes and its relation to mathematics ability of first-time undergraduate degree seeking students at private historically black colleges and universities*. Unpublished doctoral dissertation. University of Central Florida.
- \*Howse, T. (2013). *A case study exploring the relationship between culturally responsive teaching and a mathematical practice of the Common Core State Standards*. Unpublished doctoral dissertation. University of Central Florida.
- William Wallace (2013). *Formative assessment: Benefit for All*. Unpublished masters thesis. University of Central Florida.
- \*Steele, B. (2012). *Examination of an online college mathematics course: Correlations between learning styles and student achievement*. Unpublished doctoral dissertation. University of Central Florida.
- Trimble, J. L. (2012). *Influencing students to become stewards of the earth's ocean through a residential marine camp experience*. Unpublished masters thesis. University of Central Florida.
- Friske, M. L. (2011). *Influence of using context supportive of the area model on sixth grade students' performance when writing word problems for fraction subtraction and multiplication*. Unpublished masters thesis. University of Central Florida.
- Jolicoeur, K. (2011). *The influence of virtual manipulatives on second grader's acquisition of place value concepts*. Unpublished masters thesis. University of Central Florida.
- \*Coskun, S. (2011). *Visualization with technology: Investigating the relationship between degree of visuality and use of technology in mathematics*. Unpublished doctoral dissertation. University of Central Florida.
- \*Akyuz, D. (2010). *Planning and classroom practices for an inquiry-based teaching and learning environment: A case study of an expert middle school mathematics teacher*. Unpublished doctoral dissertation. University of Central Florida.
- Gill, C. (2010). *An examination of overlapping curricula: The case of middle school mathematics and science*. Unpublished doctoral dissertation. University of Central Florida.
- \*Safi, F. (2009). *Analyzing pre-service elementary teachers' understanding of whole number concepts and operations from the individual perspective*. Unpublished doctoral dissertation. University of Central Florida.

- \*Tobias, J. (2009). *Examining preservice teachers' understanding of rational numbers through psychological and social perspective*. Unpublished doctoral dissertation. University of Central Florida.
- Cuffel, T. A. (2009). *Conceptually-based teaching practices of place value and their effects on student computational practices*. Unpublished masters thesis. University of Central Florida.
- Maguhn, J. (2009). *Conceptually based professional development on fractions*. Unpublished masters thesis. University of Central Florida.
- \*Roy, G. (2008). *Prospective teachers' development of whole number concepts and operations during a classroom teaching experiment*. Unpublished doctoral dissertation. University of Central Florida.
- Hoke, D. (2008). *Using manipulatives with middle school students*. Unpublished masters thesis. University of Central Florida.
- \*Wheeldon, D. (2008) *Developing mathematical practices in a social context: An instructional sequence to support prospective elementary teachers' learning of fractions*. Unpublished doctoral dissertation. University of Central Florida.
- Nardelli, M. (2007). *Examining sociomathematical norms within the context of decimals and fractions in a sixth grade classroom*. Unpublished masters thesis. University of Central Florida.
- Hensley, E. (2007). *The influence of discourse and journal writing on second graders' acquisition of multidigit addition concepts*. Unpublished masters thesis. University of Central Florida.
- \*Andreasen, J. (2006). *Classroom mathematical practices in a preservice elementary education course on mathematics content using an instructional sequence related to place value and operations*. Unpublished doctoral dissertation. University of Central Florida.
- \*Swan, B. (2006). *Middle school mathematics teacher certification, degree level, and experience, and the effects on teacher attrition and student mathematics achievement in a large urban district*. Unpublished doctoral dissertation. University of Central Florida.
- Lowry, K. (2006). *The paths to becoming a mathematics teacher*. Unpublished doctoral dissertation. University of Central Florida.
- Bale, V. (2006). *Using manipulatives to teach multiplication and division of fractions to eighth grade students*. Unpublished masters thesis. University of Central Florida.
- \*Egendoerfer (Leong), L. (2006). *Challenging a traditional social norm in a second grade mathematics class*. Unpublished masters thesis. University of Central Florida.
- Yaker, R. (2006). *E-merging technology for the emerging classroom*. Unpublished undergraduate honors thesis. University of Central Florida.

- Varn, T. (2005). *Effects of incorporating spatial reasoning activities on fifth grade students' ability to spatially reason*. Unpublished masters thesis. University of Central Florida.
- Hull, L. (2005). *Fraction models that promote understanding for elementary students*. Unpublished masters thesis. University of Central Florida.
- Allen, C. (2005). *Learning fractions through context-embedded instruction*. Unpublished masters thesis. University of Central Florida.
- Quinones, C. K. (2005). *The effects of journal writing on student performance and attitudes in problem solving*. Unpublished masters thesis. University of Central Florida.
- Washington, A. (2005). *The effects of literature on student motivation and connections*. Unpublished masters thesis. University of Central Florida.
- Clanton, B. (2004). *The effects of a project-based mathematics curriculum on middle school students' intended career paths related to science, technology, engineering and mathematics*. Unpublished doctoral dissertation. University of Central Florida.
- Somwaru, P. (2004). *The effects of problems and problem-solving tasks on students' communication and attitudes toward mathematics*. Unpublished masters thesis. University of Central Florida.
- Weaver, K. (2004). *Student-led conferences using portfolios and how they affect student attitudes and parental involvement in mathematics and science*. Unpublished masters thesis. University of Central Florida.
- Lindsey, T. (2004). *The use and effectiveness of reflective journal writing in mathematics*. Unpublished masters thesis. University of Central Florida.
- \*Swan, B. A. (2003). *The effects of a mentor-supported model of technology professional development on middle school mathematics teachers' attitudes and practice*. Unpublished masters thesis. University of Central Florida.
- McDuffie, D. L. (2003). *How problem-based learning affects students' attitudes and performance in the elementary mathematics classroom*. Unpublished masters thesis. University of Central Florida.
- Smith, C. E. (2003). *Integrating writing into the sixth grade mathematics curriculum and its effects on student attitude and performance*. Unpublished masters thesis. University of Central Florida.
- Allanson, P. E. (2003). *The effects of using graphing calculators in the middle school classroom*. Unpublished masters thesis. University of Central Florida.

Apple, S. (2003). *The effects of integrating writing with mathematics on students' mathematics on learning through problem solving*. Unpublished masters thesis. University of Central Florida.

Oglesby, K. (2003). *Using bottle math manipulatives in a first grade classroom*. Unpublished masters thesis. University of Central Florida.

\*Glickman, C. L. (2000). *The effects of computerized instruction in intermediate algebra*. Unpublished doctoral dissertation. University of Nevada, Las Vegas.

Sullivan, K. M. (2000). *Pre-service secondary mathematics teachers' attitudes about the history of mathematics*. Unpublished masters thesis. University of Nevada, Las Vegas.

\*Grove, K. J. (1997). *Instructional environments for technology inservice education*. Unpublished masters thesis. University of Nevada, Las Vegas.

### **Member of Committee**

Knote, E. (in progress). *The effects of using dynamic mathematics software on high school algebra students' knowledge of functions, and preference for solution methods*. Unpublished doctoral dissertation. University of Central Florida.

Mainali, B. (2014). *Investigating the relationships between preferences for solution methods, gender, and students' geometry performance*. Unpublished doctoral dissertation. University of Central Florida.

Avila, C. (2013). *Calculus instructors' expectations of student prior knowledge of functions*. Unpublished doctoral dissertation. University of Central Florida.

Bawatneh, Z. (2012). *The impact of using a computer algebra system in secondary school calculus on students' performance in college calculus courses*. Unpublished doctoral dissertation. University of Central Florida.

Siegel, A. (2012). *The influence of choice in manipulatives on second grade students' attitudes, achievement, and explanations of two-digit addition concepts*. Unpublished masters thesis. University of Central Florida.

Hunt, J. H. (2011). *The effects of a ration based teaching sequence on performance in fraction equivalency for students with mathematics disabilities*. Unpublished doctoral dissertation. University of Central Florida.

\*Clements, T. B. (2011). *The role of cognitive and metacognitive reading comprehension strategies in the reading and interpretation of mathematical word problem texts: Reading clinicians' perceptions of domain relevance and elementary students' cognitive strategy use*. Unpublished doctoral dissertation. University of Central Florida.

Bryson, L. L. (2011). *DRAMA + MATH = DRAMATH*. Unpublished thesis for Master of Fine Arts. University of Central Florida.



- Sasser, J. (2010). *Elementary teachers' perceived mathematics anxiety and teaching efficacy in relationship to students' mathematics achievement*. Unpublished doctoral dissertation. University of Central Florida.
- \*Bray, W. (2007). *A study of teacher transitions to a reform-based mathematics curriculum in an urban school: The interaction of beliefs, knowledge, and classroom practices*. Unpublished doctoral dissertation. University of North Carolina – Chapel Hill.
- Robinson, H. (2007). *The use of guided inquiry and its impact on student participation and attitude toward science instruction*. Unpublished masters thesis. University of Central Florida.
- Hoffman, E. (2006). *Listening to student voices: Fifth graders' perceptions of their mathematics learning within the context of a mathematics reform effort*. Unpublished doctoral dissertation. University of Central Florida.
- \*Steele, B. (2006). *What do teachers want to know: Action research in mathematics and science*. Unpublished masters thesis. University of Central Florida.
- Subramanian, L. (2005). *An investigation of high school geometry students' proving and logical thinking abilities and the impact of dynamic geometry software on student performance*. Unpublished doctoral dissertation. University of Central Florida.
- Hess, J. S. (2004). *Effects of creating meaning in mathematics through real-world activities on fourth-grade students' mathematical performance*. Unpublished masters thesis. University of Central Florida.
- Fontana, H. (2004). *The effects of inquiry on middle school science students*. Unpublished masters thesis. University of Central Florida.
- Hillsman, M. (2004). *The effects of mathematics and science integration with low-achieving fifth graders*. Unpublished masters thesis. University of Central Florida.
- Wilkinson, J. (2004). *The effects of guided inquiry on students' attitudes and academic performance*. Unpublished masters thesis. University of Central Florida.
- Woolridge, M. J. (2003). *The efficacy of Master's and Bachelor's Degree teachers relative to student achievement in mathematics*. Unpublished doctoral dissertation. University of Central Florida.
- Avila, M. G. (2003). *Improving the quality of teaching and learning through dialogue math journals*. Unpublished masters thesis. University of Central Florida.
- \*Roy, G. J. (2002). *Thematic teaching in an inner city school and its effects on 8<sup>th</sup> grade algebra students' attitudes and performance in mathematics*. Unpublished masters thesis. University of Central Florida.

- White, M. L. (2002). *Multiple intelligences with an attitude: The effects of multiple intelligences in mathematics*. Unpublished masters thesis. University of Central Florida.
- Miller, J. S. (2002). *Effects of inquiry-based technological learning on students attitudes and performance in science*. Unpublished masters thesis. University of Central Florida.
- Kraft, T. L. (2002). *The effects of using multiple intelligence mathematics instruction on primary students in a rural multi-ethnic school*. Unpublished masters thesis. University of Central Florida.
- Pearson, G. (2002). *The effect of music infused into the middle-grades mathematics curriculum on student attitudes and performance*. Unpublished masters thesis. University of Central Florida.
- Elliott, T. A. (2002). *Implementation of inquiry-based instruction on an 8<sup>th</sup> grade science classroom and its effect on students*. Unpublished masters thesis. University of Central Florida.
- Horel, P. A. (2002). *The effects of using technology on students' attitudes towards mathematics and on student performance*. Unpublished masters thesis. University of Central Florida.
- Difabio, N. N. (2001). *A study to document evidence of student learning in a constructivist kindergarten classroom*. Unpublished masters thesis. University of Central Florida.
- Cooper, B. (2001). *Problem solving: Teaching strategies to solve higher level mathematics problems*. Unpublished masters thesis. University of Central Florida.
- McCue, L. A. (2001). *Effects of small group cooperative team work on thigh school students' attitude and achievement in algebra*. Unpublished masters thesis. University of Central Florida.
- \*Falba, C. J. (1998). *Technology use by college of education faculty and factors influencing integration of technology in an undergraduate teacher preparation program*. Unpublished doctoral dissertation. University of Nevada, Las Vegas.

### **Counseling and Advisement Activities**

Undergraduate – Advise students in Elementary Education Program including portfolio review responsibilities.

Graduate – Advise all students in M.Ed. in K-8 Mathematics and Science.

Advanced Graduate – Advise all doctoral students in the mathematics education track of Ph.D. in Education related to program of studies and internships until they select dissertation chair and committee. Advise doctoral students in the mathematics education emphasis area of Ed.D. in Education.

## **Supervision of Student Teachers/Interns**

- Place and supervise mathematics education doctoral students in internship and practicum positions (2001-2007, 2011-2012)
- Supervise internship I and internship II students in secondary mathematics (1995-1999)

## **Program Development**

Lockheed Martin/UCF Mathematics and Science Academy: Work collaboratively with faculty in the academy to continue to support students funded in the academy and to continue to develop programs supported by academy funds. Specific programs revised and developed include the M.Ed. in K-8 Mathematics and Science and the Transition to Mathematics and Science Teaching (T-MAST) program, 2000-present.

Ph.D. in Education – Mathematics Track: Develop, maintain, and recruit for this program. Students in this program are receiving university, state, and national attention for their accomplishments through awards, recognition, and offers to collaborate with prominent individuals and institutions in mathematics education, 2000-present

Elementary Mathematics Education: Research leader for classroom teaching experiments responsible for initiating major change in content and delivery of courses focused on mathematics for elementary school teachers, 2003-present.

Ph.D. and Ed.D. in Curriculum and Instruction: Developed mathematics education emphases for both programs, one focused on creating instructional leaders and the other focused on creating mathematics educators prepared to enter the professoriate, 1995-1998.

## **PROFESSIONAL SERVICE**

### **International and National**

Member, Membership Services Committee, TODOS: Mathematics for All, 2012-2015.

Co-Chair, Local Arrangements Committee, Association of Mathematics Teacher Educators (AMTE), 2012-2013.

Manuscript Reviewer, *Mathematics Teacher Educator*, 2013.

Manuscript Reviewer, *Mathematics Teaching in the Middle School*, 2013.

Book Reviewer, *National Council of Teachers of Mathematics* (NCTM), 2011.

Panel Member, 2012 NCTM Yearbook, *Professional Learning Communities in Mathematics Teaching and Learning: Collaborating for the Success of All Learners*, 2009-2010.

Chair, *Student Math Notes (Student Explorations in Mathematics)* Editorial Panel, National Council of Teachers of Mathematics, 2008-2009.

Board of Directors Member, Association of Mathematics Teachers Educators, 2008-2010.

Sponsorship Liaison, Association of Mathematics Teacher Educators, 2008-2010.

Expert Reviewer, *Missouri K-12 Mathematics: Core Concepts, Learning Goals and Performance Indicators*. Draft of new Missouri mathematics standards, 2008.

*Student Math Notes* Editorial Panel Member, National Council of Teachers of Mathematics, 2006-2008.

Manuscript Reviewer, *Teaching Children Mathematics*, 2006-2008.

Program Committee Member, Association of Mathematics Teacher Educators, 2005-2006, 2008.

Manuscript Reviewer, *Journal for Research in Mathematics Education*, 2004-2008,

Manuscript Reviewer, *Mathematics Teaching in the Middle School*, 1999-2008.

Manuscript Reviewer, *Focus on Learning Problems in Mathematics*, 1998-2008.

Proposal Reviewer, National Council of Teachers of Mathematics Research Pre-session, 2007.

*Mission Mathematics II* Editorial Panel Member, National Council of Teachers of Mathematics, 2001-2005.

Curriculum Materials Reviewer, *Mathematics Teaching in the Middle School*, 1999-2005.

Finance Committee Member, School Science and Mathematics Association, 1998-2005.

Manuscript Reviewer, *Journal of Curriculum & Supervision*, 2003.

Editor, Investigations Department for National Council of Teachers of Mathematics Journal, *Teaching Children Mathematics*, 2000-2001.

Conference Committee Member, Research Council on Mathematics Learning, 1997-2001.

Program Committee Member, Research Council on Mathematics Learning 1999.

Field Advisory Committee Member, National Council of Teachers of Mathematics, 1998-1999.

Manuscript Reviewer, *Research in Middle Level Education Quarterly*, 1995-1999.

Advisory Board Member, National Council of Teachers of Mathematics Western Regional Conference, 1997-1998.

Proposal Reviewer, Association of Teacher Educators, 1997.

Proposal Reviewer, North American Chapter of the International Group for the Psychology of Mathematics Education, 1995.

### **State**

Advisor, Florida FCAT Mathematics Content Advisory Board, 2007.

Chair, Florida Mathematics Standards Writing Committee, 2006-2007.

Board of Directors Member, Florida Association of Mathematics Teacher Educators (FAMTE), 2004-2005, 2007.

FCAT Mathematics Item Content Review Committee Member, 2004.

Steering Committee Member, Florida Residential School for Science and Technology, 2002-2003.

Validation Committee Member, Florida Teacher Competency Exam (FTCE) (Mathematics Grades 5-9), 2001.

Vice President, Nevada Mathematics Council, 1999-2000.

Steering Committee Member, Nevada NSF Collaborative - Excellence in Teacher Preparation, 1999.

Chair, Committee on Mathematics Standards in Higher Education (Nevada), 1998-1999.

Executive Board Member, Nevada Mathematics Council, 1996-1999.

Reviewer, Nevada Standards for School Mathematics, 1998.

Writer, Nevada Performance Standards for School Mathematics, 1998.

### **Local**

Coach, Odyssey of the Mind, Lawton Chiles Middle School. Seminole County, FL, 2011-2012.

Volunteer workshop facilitator, Mathematics Faculty, Seminole County Public Schools, FL 2012.

Advisor and facilitator, Writing Committee for Task Analysis, Orange County Public Schools, FL, 2008.

Volunteer and workshop facilitator, Joan Walker Elementary School, Seminole County Public Schools, FL, 2005–2008.

Volunteer, Math Superstars, Avalon Elementary School, Orange County Public Schools, FL, 2003-2005.

Volunteer and workshop facilitator, Avalon Elementary School, Orange County Public Schools, FL, 2003.

Reviewer, Clark County (Nevada) School District Middle School Mathematics Curriculum, 1998-1999.

Advisor, Mathematics and Physical Science (MAPS) Project (Nevada), 1998-1999.

Board Member, Southern Nevada Mathematics Council, 1996-1999.

Conference Committee Chair, Southern Nevada Mathematics Council, 1995-1998.

Post-Secondary School Representative, Southern Nevada Mathematics Council, 1996-1999.

Co-Chair, University/School District Mathematics Focus Group (Nevada), 1996-1997.

### **University**

Member, Student Disability Services Faculty Advisory Board, 2013 – present.

Representative, Faculty Senate (UCF), 2012-2014.

Member, Graduate Council (UCF), 2011-2014.

Member, Graduate Policy Committee (UCF), 2011-2014.

Member, Board of Directors, UCF Creative School, 2004-2008.

Member, Graduate Council Subcommittee for Appeals and Awards (UCF), 2006-2007.

Alternate Representative, Faculty Senate (UCF), 2005, 2006-2007.

Representative, Faculty Senate (UCF), 2006.

Member, Schools Subcommittee for the UCF Medical School, 2006

Member, Undergraduate Teaching Equipment Committee (UCF), 2006.

Judge, Graduate Research Forum (UCF), 2006.

Member, University Graduate Fellowship Committee (UCF). 2002-2005.

Mathematics/Science Representative, Benchmark Committee for Programs of National Prominence (UCF), 2002-2003.

Member, Parent Advisory Council for Academic Policy, UCF Creative School, 2000-2003.

Presenter, UCF Open House, 2001.

Member, Faculty Senate Ethics Committee (UNLV), 1998-2000.

Member, Committee on Mathematics and Science Standards in Higher Education (UNLV), 1998-1999.

Member, Faculty Senate Admissions Committee (UNLV), 1995-1998.

Marshall, University of Nevada, Las Vegas graduation ceremony, 1997-1998.

Member, Response Committee for Task Force for Planning (UNLV), 1996-1997.

Member, Internal Peer Review Committee (UNLV), 1996.

Faculty Mentor, University of Nevada Las Vegas Residence Hall, 1995-1996.

Proxy Member, Faculty Senate Library Committee (UNLV), 1995.

### **College**

Coordinator, Ph.D. in Education – Mathematics Education (UCF), 2001-present.

Associate Director, Lockheed Martin/UCF Academy for Mathematics and Science (UCF), 2002-present.

Faculty Marshall, Education Doctoral Graduation Ceremony (UCF), 2013.

Member, Research Incentive Award Committee (UCF), 2013.

Member, Promotion and Tenure Committee (UCF), 2012 - 2013.

Chair, Instructor & Lecturer Promotion Committee (UCF), 2012.

Member, Promotion and Tenure Committee for Department of Educational Research, Technology, and Leadership (UCF), 2009.

Member, Research Incentive Award (RIA) Peer Committee (UCF), 2009.

Member, Advanced Graduate Admissions and Retention Committee (UCF). 2009.

Chair, Graduate Curriculum and Standards Committee (UCF), 2004-2007.

Member, Research Incentive Award Peer Review Committee (UCF), 2007.

Member, Minority Programs in Educ. Mentor-of-the-Year Selection Committee (UCF), 2007.

Member, Council of Committee Chairs (UCF), 2004–2007.

Mentor, Minority Programs in Education (UCF), 2001-2006.

Member, Special Committee to Revise Tenure and Promotion Guidelines (UCF), 2005.

Member, Ad Hoc Budget Committee (UCF), 2004.

Member, College Strategic Plan Committee (UCF), 2003-2004.

Member, Graduate Curriculum and Standards Committee (UCF), 2003-2004.

Member, Department Chair Search Committee (UCF), 2001-2003.

Member, Advanced Graduate Admission and Retention Committee (UCF), 2000-2003.

Member, Center for Educational Research and Planning (UNLV), 1999-2000.

Member, Public Relations Committee (UNLV), 1998-1999.

Member, NCATE Accreditation Preparation Team (UNLV), 1998.

Member, Center for Inservice, Training, and Educational Research (UNLV), 1996-1997.

### **Department/School**

Coordinator, M.Ed., K-8 Mathematics and Science (UCF), 2006-present.

Chair, Graduate Admissions and Retention Committee, 2014-2015.

Chair, Elementary Mathematics Education Search Committee, 2014-2015.

Chair, Promotion and Tenure Committee for School of Teaching, Learning and Leadership (UCF), 2014-2015.

Member, Elementary Education Council for School of Teaching, Learning and Leadership (UCF), 2011-present.

Co-chair, Promotion and Tenure Committee for School of Teaching, Learning and Leadership (UCF), 2011-2012.

Co-chair, Progress Towards Tenure Committee for School of Teaching, Learning and Leadership (UCF), 2011-2012.



Member, Secondary/Technology Education Search Committee for School of Teaching, Learning and Leadership (UCF), 2011.

Member, Promotion and Tenure Committee for School of Teaching, Learning and Leadership (UCF), 2010.

Member, Elementary Education Instructor Search Committee (UCF). 2009.

Member, Secondary Mathematics Education Search Committee (UCF), 2008-2009.

Member, Ad Hoc Assessment Committee (UCF), 2008.

Chair, Secondary Mathematics Education Search Committee (UCF), 2006-2007.

Coordinator, Elementary Mathematics Education (UCF), 2002-2007.

Member, Department Chair Search Committee (UCF), 2006-2007.

Member, Ad Hoc Assessment Committee (UCF), 2006.

Member, Secondary Mathematics Education Search Committee (UCF), 2002-2005.

Coordinator, Middle School Track, M.Ed.- Mathematics Education (UCF), 2003-2004.

Member, Elementary Mathematics Education Search Committee (UCF), 2002-2003.

Reviewer, Student Portfolios (UCF), 2001-2004.

Member, Content Reading Search Committee (UCF), 2000-2001.

Member, Elementary Education Program Committee (UCF), 2000-2001.

Chair, Mathematics Education Faculty Interest Group (UNLV), 1995-1999.

Member, Graduate Council (UNLV), 1998-1999.

Member, Instructional Technology Search Committee (UNLV), 1997, 1999.

Member, Subcommittee on Workload Policy (UNLV), 1998.

Member, Doctoral Admissions Committee (UNLV), 1996-1999.

Member, Secondary Faculty Interest Group (UNLV), 1995-2000.

Member, Technology Faculty Interest Group (UNLV), 1995-1998.

Member, Graduate Studies Committee (UNLV), 1995-1997.

Member, Elementary Science Education Search Committee (UNLV), 1996.

Member, Issues Committee (UNLV), 1995-1996.

**Professional Memberships and Affiliations**

American Educational Research Association (AERA), 1997-2008

Association of Mathematics Teacher Educators (AMTE), 2004-present

Florida Association of Mathematics Teachers Educators (FAMTE), 2004-present

Florida Association of Mathematics Supervisors (FAMS), 2008-present

Florida Association of Teacher Educators (FATE), 2009-present.

Florida Council of Teachers of Mathematics (FCTM), 2000-present

National Council of Supervisors of Mathematics (NCSM), 1996-present

National Council of Teachers of Mathematics (NCTM), 1987-present

Psychology of Mathematics Education (PME), 1995-1996.

Research Council on Mathematics Learning (RCML), formerly Research Council for Diagnostic  
and Prescriptive Mathematics (RCDPM), 1996-present

School Science and Mathematics Association (SSMA), 1999-2008

Society for Information Technology and Teacher Education (SITE), 1995-2001.

Southern Nevada Mathematics Council, 1996-2000.

TODOS: Mathematics for All, 2012-present.