

CURRICULUM VITAE

Enrique Ortiz

Associate Professor
Mathematics Education
School of Teaching, Learning and Leadership
College of Education and Human Performance
University of Central Florida
Orlando, FL 32816-1250
Office: (407) 823-5222
Email: ortiz@mail.ucf.edu

ACADEMIC BACKGROUND

- Ed.D.
1987 Louisiana State University, Baton Rouge, Louisiana
Secondary School Mathematics with Statistics
Honors: Department of Curriculum and Instruction Assistantship
Dissertation: A comparative study of a computer programming approach and a textbook approach in teaching the concept of variable. Co-Major Advisors: Drs. Kim McGregor and L. Diane Miller.
- M.A.
1981 Phoenix University, Puerto Rico Resident Center
Administration and Supervision of Schools with Statistics
Honors: Puerto Rico Department of Instruction Scholarship
- B.A.
1976 Inter-American University, Rio Piedras, Puerto Rico
Secondary Education Minor: Mathematics
Honors: Magna Cum Laude, Mathematics Achievement Medal and Received the Puerto Rico Legislative Scholarship

PROFESSIONAL EXPERIENCE

- 08/1994-Present **Associate Professor** - Department of Teaching and Learning Principles, University of Central Florida. 1999-present, Orlando Campus, and 1989-1999, Daytona Beach Campus.
- 08/89-07/94 **Assistant Professor** - Department of Instructional Programs, University of Central Florida, Daytona Beach Campus, Florida.
- 08/87-07/89 **Assistant Professor (K-12)** - Department of Curriculum and Instruction, University of New Orleans, New Orleans, Louisiana.
- 08/83-07/87 **Instructor** - Department of Curriculum and Instruction, Louisiana State University, Baton Rouge, Louisiana
- 08/86-12/86 **Mathematics Teacher** (part time) - Glen Oaks Middle School, East Baton Rouge Parish, Baton Rouge, Louisiana. Taught mathematics to sixth-grade students through computer programming.
- 04/86-05/86 **Evaluator** - Department of Mathematics, East Baton Rouge Parish, Baton Rouge, Louisiana. Evaluated elementary school teachers' performance after in-service training on using manipulatives to teach mathematics.

- 08/81-07/82 **Research Evaluator** - Project Follow Through, Puerto Rico Department of Education Central Office, Hato Rey, Puerto Rico. Developed and administered criterion-referenced elementary school mathematics tests (K-8); participated in the analysis of data and development of reports; provided in-service training to teachers; and served as Acting Assistant Superintendent for one (1) semester (January-July, 1982).
- 06/81-07/81 **Mathematics Teacher** - Facundo Bueso Intermediate School, San Juan II School District, San Juan, Puerto Rico.
- 08/80-05/81 **Mathematics Specialist** - Chapter II Federal Program, San Juan II School District, San Juan, Puerto Rico. Provided in-service training to teachers (K-12); provided performance evaluation of teachers; and developed instructional materials for mathematics teaching.
- 05/80-08/80 **Mathematics Supervisor (7-12)** - Rio Piedras IV School District, Department of Education, Rio Piedras, Puerto Rico.
- 08/76-05/80 **Mathematics Teacher (7-12)** - Rio Piedras II School District, Department of Education, Rio Piedras, Puerto Rico.

HONORS AND AWARDS

- Teaching Incentive Program (TIP) of the State University System of Florida. (2015-2016, 2009-2010, 2004-2005, 1999-2000, 1995-96).
- Scholarship of Teaching and Learning (SoTL) Award of the State University System of Florida (2013-2014, 2006-2007).
- University Excellence in Graduate Teaching Award of the University of Central Florida (2013-2014).
- College of Education and Human Performance Award for Excellence in Graduate Teaching of the University of Central Florida (2013-2014, 2004-2005).
- Medal for 20 years of Service at the University of Central Florida (Fall, 2009).
- Research Incentive Award (RIA) of the State University System of Florida (2006-2007, 2001-2002).
- Selection as one of the "Best Paper" manuscript from the annual College Teaching & Learning Conference. The manuscript was published in the College Teaching and Learning Journal (2005).
- University Excellence in Faculty Advising Award of the University of Central Florida (2003-2004).
- UCF Excellence in Research Award (2002-2003).
- UCF Award for Excellence in Undergraduate Teaching of the State University System of Florida (1999-2000, and 1995-1996).

RESEARCH AND CREATIVE ACTIVITIES

Research Foci

- Developing and investigating diagnostic/prescriptive and RtI (or Multi-tiered) assessment techniques that will help understand students' strengths and weaknesses as they learn mathematics. This research area includes the development of a new assignment and use of Optical Topography (a helmet type brain scanning devise) to study students' development of mathematics ability.
- Investigating students' use of learning levels, Concrete (C), Pictorial (P) and Abstract (A) (also known as CPA levels), with the addition of the Virtual level (V) (CPAV), as they learn mathematics (K-12 students), and develop mathematics instruction (pre-service teachers). The virtual level involves virtual manipulatives in the form of Apps and Applets.
- Developing and researching best teaching practices (e.g., using games, puzzles, manipulative materials, creative curriculum approaches and technology) that promote students' mathematics learning, and help pre- and in-service teachers develop content, pedagogical and pedagogical content knowledge (make decisions about how to help students learn). These activities include the development of the Triangle Puzzle and teaching mathematics for social justice (TMfSJ).

Publications

Articles:

- **Ortiz, Enrique** (In press, 2017). The secret life of prime numbers. Teaching Children Mathematics, x(x) pp. xxx-xxx (blind refereed reviewing process). Based on activities that were pilot tested and researched with elementary school students.
- Pace, Michelle, and **Ortiz, Enrique** (October, 2016). Get the goof. Teaching Children Mathematics, 23(3) pp. 138-143 (blind refereed reviewing process). This is a feature article that I co-authored with one of a graduate student in the K-8 mathematic and science teaching master's program. It is based on our research efforts involving students' discourse as part of the mathematics learning process.
- **Ortiz, Enrique** (Winter, 2016). The problem-solving process in a mathematics classroom. Transformations, a publication by FAMTE (online journal), 1(1), pp. 4-14. Retrieved from http://www.amazon.com/Transformations-Publication-Association-Mathematics-Educators/dp/1523495936/ref=sr_1_1?ie=UTF8&qid=1456099123&sr=8-1&keywords=Transformations%3A+FAMTE. FAMTE stands for Florida Association of Mathematics Teacher Educators. I am one of the founding members of this organization and journal.
- **Ortiz, Enrique** (Spring, 2015). The development of fraction ideas and use of learning levels: Part II. Dimension in Mathematics, 35(1), pp. 23-31 (refereed reviewing process).
- Goodwin, Chris, and **Ortiz, Enrique** (May, 2015). It's a Girl: Random Numbers, Simulations, and the Law of Large Numbers. Mathematics Teaching in the Middle School, Mathematical Explorations Department: Classroom-ready activities, 20(9) pp. 561-564 (blind refereed reviewing process). This is a feature article that I co-authored with one of a graduate student in the T-MAST master's program. This was part of MAE 6641 Problem Solving in Mathematics course. It is based on our research efforts involving students' problem solving as part of the mathematics learning process.
- Pace, Michelle, and **Ortiz, Enrique** (April, 2015). Oral language needs: Making math meaningful. Teaching Children Mathematics, 21(8) pp. 495-500 (blind refereed reviewing process). This is a feature article that I co-authored with one of my graduate students in the

K-8 mathematic and science teaching master's program. The manuscript is based on one of the MAE 6641 course activities, and is about a teacher's efforts to study her professional practice and impact on students' learning.

- **Ortiz, Enrique** (Fall, 2014). The development of fraction ideas and use of learning levels: Part I. Dimension in Mathematics 34(2) pp. 17-26 (refereed reviewing process).
- **Ortiz, Enrique** (July 8, 2014). Optical topography of evoked brain activity during mental tasks involving whole number operations. International Journal for Mathematics Teaching and Learning, 1-36. [<http://www.cimt.org.uk/journal>] (blind refereed reviewing process) (blind refereed reviewing process). This research is based on a study I carried out with undergraduate and graduate teacher candidates mathematics education methods courses. This journal, which is published only in electronic form, aims to enhance mathematics teaching for all ages (and abilities) up to 18 years, through relevant articles, reviews and information from around the world. It is aimed at practitioners and educationalists, providing a medium for stimulating and challenging ideas, offering innovation and practice in all aspects of mathematics teaching and learning. This journal acceptance rate for 2013 was 27.5%. This is a joint initiative between the Centre for Innovation in Mathematics Teaching at Plymouth University, UK and the Mathematics Education Department at College of Nyiregyháza, Hungary. This journal is indexed in both ERIC and EBSCO.
- Avila, Cheryl, and **Ortiz, Enrique** (November, 2012). Produce intrigue with Crypto! Teaching Middle School Mathematics, 18(4) 212-220 (blind refereed reviewing process). This is a feature article that I co-authored with one of my graduate students in the Ph. D. program in mathematics education. The manuscript is based on one of the MAE 6641 course activities.
- Siegel, Aryn, and **Ortiz, Enrique** (August, 2012). Perimeter and beyond! Teaching Children Mathematics, 19(1) 38-41 (blind refereed reviewing process). This is a feature article that I co-authored with one of my graduate students in the K-8 mathematic and science teaching program. The manuscript is based on one of the MAE 6641 course activities.
TCM Earns Two Excel Awards: *Teaching Children Mathematics* received two bronze EXCEL Awards from Association Media & Publishing on June 11, 2012—one for "General Excellence" and the other in the "Cover Design" category. The EXCEL Awards honor and represent the best publishing products of the association industry. This year, there were more than 1,000 entries. Of those, 180 (representing 104 associations) were recognized as the best and brightest in association media and publishing.
- **Ortiz, Enrique** (October, 2011). An analysis of Middle School Mathematics Pre-service Teachers' Assessment of Teaching Goals. International Journal for Mathematics Teaching and Learning, 1-14. ISSN 1473 – 0111 (blind refereed reviewing process). [<http://www.cimt.plymouth.ac.uk/journal/default.htm>]. This research is based on a study I carried out with teacher candidates in the Mathematics Teaching in Middle School graduate program.
 This journal, which is published only in electronic form, aims to enhance mathematics teaching for all ages (and abilities) up to 18 years, through relevant articles, reviews and information from around the world. It is aimed at practitioners and educationalists, providing a medium for stimulating and challenging ideas, offering innovation and practice in all aspects of mathematics teaching and learning. This journal acceptance rate for 2011 was 34%. This is a joint initiative between the Centre for Innovation in Mathematics Teaching at Plymouth University, UK and the Mathematics Education Department at College of Nyiregyháza, Hungary. This journal is indexed in both ERIC and EBSCO.
- Tobias, Jennifer, and **Ortiz, Enrique** (August 2007). Using science to promote preservice teachers understanding of problem solving in mathematics. Issues in the Undergraduate Mathematics Preparation of School Teachers (IUMPST): The Journal, (Pedagogy), (2) (blind

refereed reviewing process). [www.k-12prep.math.ttu.edu]. She was one of my graduate students and the manuscript is based on one of the MAE 6641 course activities.

- Thrift, Michelle L., and **Ortiz, Enrique** (2007). Memorable menu math: One teacher's journey from procedural teaching to conceptual teaching. In *From the Classroom Department of the Teaching Children Mathematics*, 14(1) 58-60 (blind refereed reviewing process). She is one of my graduate students and the manuscript is based on one of the MAE 6641 course activities.
- **Ortiz, Enrique** (2006). Roll out fractions game: Comparing fractions. *Teaching Children Mathematics*, 13(1), 56-62 (blind refereed reviewing process).

This article is based on my teaching and research work related to graduate and undergraduate mathematics methods (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) courses, and in-service teachers.

- **Ortiz, Enrique** (2005). Learning levels of learning in mathematics teaching. *Journal of College Teaching & Learning*, 2(4) 65-71 (blind refereed reviewing process). [<http://www.cluteinstitute.com/ojs/index.php/TLC/article/view/1809>]

The Journal of College Teaching & Learning welcomes articles in all areas of college level teaching, learning, and administration. The TLC Journal publishes the "Best Paper" manuscript(s) from the annual College Teaching & Learning Conference in addition to non-conference manuscripts. This paper received the "Best Paper" award in the College Teaching and Learning conference and was automatically reviewed for possible publication in one of our journals. They employ a double blind refereed reviewing process for the TLC Journal. The TLC Journal has been accepted for listing in Cabell's Directory. The TLC Journal rating is currently in the on-line version of Cabell's Directory and will be in the next printing of the hardcopy version. The overall acceptance rate is 11% to 20%.

This article is based on my teaching and research work related to graduate and undergraduate mathematics methods courses (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) and in-service teacher training, and experiences with grades K-12 students.

- **Ortiz, Enrique**, and Popovich, Angela (2005). Solving a volume problem using the Geometer's Sketchpad. *ON-Math: Online Journal of School Mathematics*, 4 (blind refereed reviewing process).

ON-Math receives contributions from readers who have successfully used technology to help children learn mathematics. Video clips, computer software, and Web applets all have the potential to enhance learning or support the professional growth of teachers. ON-Math articles help readers learn about and use interactive applications. It has a 25% acceptance rate.

This article came out of one of the MAE 5327 activities. Angela Popovich, who was enrolled in this course (during summer, 2004), developed an interesting approach to a problem given in class, and we decided to develop an article around her approach.

The Geometer's Sketchpad is one of the softwares used in the MAE 5327 course. It is an award-winning mathematics visualization environment, which features enhanced support for algebra and calculus as well as geometry, a full set of formatting tools for mathematical notation and styled text, a flexible user interface for greater ease of use, built-in Web integration (applets or virtual manipulatives), and many, many other enhancements.

Cited in the following book: Brumbaugh, & Rock (2006). *Teaching Secondary School Mathematics*, Chapter 14.

- Dixon, J., and **Ortiz, Enrique** (2004). The Florida Association of Mathematics Teacher Educators (FAMTE). Dimension in Mathematics, 24(2), 6 (blind refereed reviewing process).
- **Ortiz, Enrique** (February, 2003). Research findings from games involving basic fact operations and algebraic thinking at a PDS. Paper presented at the Annual Holmes Partnership Conference. Washington, D.C. This document is included in the ERIC Collection (<http://www.eric.ed.gov>) as ED476 699. Subject-matter experts review documents submitted via the ERIC Online Submission System for compliance with ERIC Screening Criteria. This article is based on my teaching and research work related to graduate and undergraduate mathematics methods (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) courses, and in-service teachers.
- **Ortiz, Enrique** (May, 2002). Games for teaching basic facts operations. Dimensions in Mathematics (blind refereed reviewing process).

This article is based on my teaching and research work related to graduate and undergraduate mathematics methods (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) courses, and in-service teachers.

- **Ortiz, Enrique** (January, 2000). A game involving fraction squares. Teaching Children Mathematics, 7(4), 218-222 (blind refereed reviewing process).

This article is based on my teaching and research work related to graduate and undergraduate mathematics methods (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) courses, and in-service teachers.

This game will be featured as part of a National Council of Teacher of Mathematics book, and have been used as a reference in a book published by Marilyn Burns (2004) and other teachers around the country.

- **Ortiz, Enrique** (1997). An interdisciplinary activity involving hats and show-and-tell. Dimensions in Mathematics, 17 (2), 9-13 (blind refereed reviewing process).

This article is based on my teaching and research work related to graduate and undergraduate mathematics methods (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) courses, and in-service teachers.

- **Ortiz, Enrique**, Everett, R., and Holt, L. (1994). Results of a College of Education technology survey: A follow-up study. Florida Science Teacher Journal, 9 (2), 18-20 (blind refereed reviewing process).

This study included graduate and undergraduate courses.

- **Ortiz, Enrique** (1994). Teacher to Teacher: A geometry game. Teaching Children Mathematics. 1 (4), 231-233 (blind refereed reviewing process).

This article is based on my teaching and research work related to graduate and undergraduate mathematics methods (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) courses, and in-service teachers.

- **Ortiz, Enrique** (June, 1993). “Vevo, vevo” game: Practicing vocabulary in a fun way. Journal of Reading Education (blind refereed reviewing process).

- **Ortiz, Enrique**, Holt, L., and Everett, R. (1993). InTech training final report: The infusion of technology in the methods courses (graduate and undergraduate). Florida Science Teacher Journal, 8 (2), 16-22 (blind refereed reviewing process).
- **Ortiz, Enrique** (1992). Talking about connections: The NCTM Standards, some human developments and the mathematics curriculum needs for change. Dimensions in Mathematics, 12 (3), 17-21 (blind refereed reviewing process).
- **Ortiz, Enrique** (1990). Using Logo to teach the mathematics concept “variable”. Dimensions in Mathematics, 10 (2), 13-20 (blind refereed reviewing process).
- **Ortiz, Enrique**, and MacGregor, K. (1990). Effects of Logo programming on understanding of variables. Journal of Educational Computing Research, 7 (1), 37-49 (blind refereed reviewing process).

Articles Published from Proceedings:

- **Ortiz, Enrique** and Pace, Michelle (February 18–20, 2016). Wealth distribution as a context for teaching mathematics for social justice. Proceedings of the International Conference on Poverty, Globalization and Schooling: A Holistic Approach. University of Central Florida campus, Orlando, FL.
- **Ortiz, Enrique** (January 4–6, 2016). A framework for using virtual manipulative tools such as apps and applets. Proceedings of the 2016 International Education Conference in Orlando.
- **Ortiz, Enrique** (February 26–28, 2015). Challenges and opportunities of teaching mathematics for social justice. Proceedings of the International Conference on Poverty, Globalization and Schooling: A Holistic Approach. University of Central Florida campus, Orlando, FL. http://education.ucf.edu/form/PGS_reg.cfm?id=4, http://education.ucf.edu/form/docs/2015PGS_proceedings.pdf, or http://education.ucf.edu/form/docs/2015PGS_papers.pdf.
- **Ortiz, Enrique** (April 8–12, 2011). How the brain's performance during mathematics and reading fluency tests compare. The ERIC Clearinghouse on Teaching and Teacher Education. Washington, D.C. This article is included in ERIC as ED520161 <http://eric.ed.gov/?q=enrique+ortiz&id=ED520161>, and AERA Online Paper Repository (<http://www.aera.net/repository/>). Subject-matter experts review documents submitted via the ERIC Online Submission System for compliance with ERIC Screening Criteria. This article is based on research paper presentation at the 2011 Annual Meeting of the American Educational Research Association, Denver, Colorado. Also, it is based on my brain-based research related to graduate and undergraduate mathematics.
- **Ortiz, Enrique** (April 30–May 4, 2010). The Use of Neuroimaging to clarify how human brains perform mental calculations. The ERIC Clearinghouse on Teaching and Teacher Education. Washington, D.C. This article is included in ERIC as ED511223 <http://eric.ed.gov/?q=enrique+ortiz&id=ED511223>, and AERA Online Paper Repository (<http://www.aera.net/repository/>). This article is based on brain-based research related to graduate and undergraduate mathematics development of mathematics computation ability.
- **Ortiz, Enrique** (2007). Using CRA levels for the development of learning activities and SoTL. Proceedings of the 5th International Conference on the Scholarship of Teaching and Learning (SoTL). London, England.

Articles Submitted:

- **Ortiz, Enrique** (2016). Polya’s Problem-Solving Process in the Classroom. Teaching Children Mathematics.

- **Ortiz, Enrique** (2016). A Framework For Using Virtual Manipulative Tools. International Journal for Mathematics Teaching and Learning.
- **Ortiz, Enrique** (2016). Pre-service teachers' ability to identify and implement cognitive levels in mathematics learning. Issues in the Undergraduate Mathematics Preparation of School Teachers (IUMPST): The Journal, (Pedagogy).
- **Ortiz, Enrique** (2016). A framework for using virtual manipulative tools such as apps and applets.
- **Ortiz, Enrique, Eisenreich, Heidi and Tapp, Laura** (2016). Pre-service teachers' conceptions and misconceptions of physical and virtual manipulatives. CITE journal, xxx, xx, pp. xxx-xxx.
 After acceptance in the 2017 Association of Mathematics Teacher Educators (AMTE) Annual Conference, this paper was invited for submission and submitted for the National Technology Leadership Initiative Fellowships. Since Fall 2000, the Society for Information Technology and Teacher Education (SITE) has been collaborating with four teacher education associations representing the content areas of mathematics, science, English language arts, and social studies education through the National Technology Leadership Initiative (NTLI). The NTLI fellowships were established to recognize exemplary presentations related to integration of technology in core content areas at the annual meetings of each participating association. AMTE identifies the winner of its NTLI fellowship through a competitive process that includes the requirement of submitting a paper in advance of the conference. The winner of the award receives travel funding (\$1200, made possible by a donation by Texas Instruments) for presenting at the [SITE Annual Conference](#). The paper is forwarded and recommended for publication in the [CITE journal](#) by the AMTE Technology committee after additional review.
- Avila, Cheryl, and **Ortiz, Enrique** (2015). Calculus instructors' assumptions of their students' prior knowledge of functions: A multiple-case study. Journal for Research in Mathematics Education, xx, xxx (blind refereed reviewing process). This is an article based on her Ph. D. dissertation, which involved university, state college and high school calculus instructors.
- **Ortiz, Enrique** (2015). Pre-service Teachers' Understanding of Learning Levels in Mathematics Education. Dimensions in Mathematics (refereed reviewing process).
- **Ortiz, Enrique** (2015). An interpretive framework for using virtual-learning tools. Contemporary Issues in Technology and Teacher Education (CITE Journal) – Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2015). Levels of learning in the mathematics classroom. Teaching Children Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Effects of instructional games on students' knowledge of operation facts and use of variables. (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Pre-service teachers' understanding of learning levels in Mathematics Education. Issues in the Undergraduate Mathematics Preparation of School Teachers (IUMPST): The Journal, (Pedagogy), (2). [<http://www.k-12prep.math.ttu.edu>] (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Using CRA levels for the development of learning activities and SoTL. The Journal on Excellence in College Teaching (blind refereed reviewing process).
- **Ortiz, Enrique** (April, 2014). Games for teaching addition and subtraction operations and algebraic thinking. Teaching Children Mathematics (blind refereed reviewing process).
 This article is based on my teaching and research work related to graduate and undergraduate mathematics methods (MAE 4326, MAE 2801, MAE 6517, MAE 5318, and MAE 5327) courses, and in-service teachers.

- **Ortiz, Enrique** (2014). Aviation math: Using paper airplanes. Teaching Children Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Math hopscotch: Students practice basic facts as they hop. Teaching Children Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). The calculator mat. Dimensions in Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Diagnosing students' algebraic knowledge. Mathematics Teacher (blind refereed reviewing process).

Articles in Preparation:

- **Ortiz, Enrique** (2014). A comparison of students' optical topography imaging during the performance of reading comprehension and arithmetic mental calculation tasks. Mind, Brain and Education Journal. <http://www.imbes.org/>
- **Ortiz, Enrique** (2014). Differences in students' optical topography imaging during different difficulty levels of arithmetic mental calculation tasks. Mind, Brain and Education Journal.
- **Ortiz, Enrique** (2014). How participants' mental strategies related to optical topography of evoked brain activity during mental tasks involving whole number operations. Mind, Brain and Education Journal.
- **Ortiz, Enrique** (2014). Games for teaching multiplication and division operations, and algebraic thinking. Teaching Children Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Alternative assessment methods used in a graduate level course. Focus on Learning Problems in Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Music! Computers! Mathematics? Teaching Children Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique** (2014). Songs integrating mathematics, music, and multicultural education. Teaching Children Mathematics (blind refereed reviewing process).
- **Ortiz, Enrique**. (2014). IDEAS: Money Dominoes Game. Teaching Children Mathematics (blind refereed reviewing process).

Reviews:

- **Ortiz, Enrique** (2011). Review of Math Jokes 4 Mathy Folks by Patrick Vennebush. In *Reviewing and Viewing: Mother, May I Read Math Books?* of Teaching Children Mathematics.
- **Ortiz, Enrique** (2008). Review of Math Matters en Español Books: Henry Lleva la Cuenta by Daphne Skinner, and ¡A Limpiar el Campamento! by Lucile Recht Penner. In *Reviewing and Viewing: Mother, May I Read Math Books?* of Teaching Children Mathematics. 14 (9), 547-548.
- **Ortiz, Enrique** (2007). Review of Math Matters en Español Books: La limonada de Lulú by Barbara deRubertis, and ¡Ya era hora, Max! by Kitty Richards. In *Reviewing and Viewing: Mother, May I Read Math Books?* of Teaching Children Mathematics. 13 (7), 398.

Books:

- **Ortiz, Enrique**, (2015). Samuel has a dollar to spend. Morrisville, NC: Lulu Publishing. ISBN: 978-1-329-39363-9. LCCN: TBA. This is a children's picture book written and illustrated by the Enrique Ortiz. It provides a research-based approach to teach the value of a dollar available as paperback copy. 16 pages. <http://www.lulu.com/shop/enrique-ortiz/samuel-has-a-dollar-to-spend/paperback/product-22290181.html>

- Andraesen, J., Spalding, Lee-Anne, and **Ortiz, Enrique**. (February, 2015). CliffsNotes FTCE: Elementary Education K-6: Test Prep, Second Edition. Boston, MA: Houghton Mifflin Harcourt. 360 pages, and online exam. ISBN-13: 978-0544313538, Paperback: http://www.amazon.com/CliffsNotes-FTCE-Elementary-Education-Second/dp/0544313534/ref=sr_1_1?ie=UTF8&qid=1425833226&sr=8-1&keywords=enrique+ortiz. Graduate and undergraduate candidates use this book as they prepare to take the Florida Teacher Certification Exam (FTCE) for Elementary Education, Grades K-6.
- **Ortiz, Enrique**, (2011). Ten elephants and a spider's web: eBook version. Morrisville, NC: Lulu Publishing (<http://www.lulu.com/product/ebook/ten-elephants-and-a-spiders-web/18702017>). ISBN: 978-1-105-22677. This is a children's picture eBook written and illustrated by the Enrique Ortiz. It is a bilingual counting book based on a Latin-American rhyme available as an eBook. 21 pages. 978-1-105-22677-9:
- **Ortiz, Enrique** (2011). Samuel tiene un dólar para comprar. Morrisville, NC: Lulu Publishing http://www.lulu.com/author/content_revise.php?fCID=10453688. ISBN: TBA. LCCN: TBA. This is a Spanish translation of the children's picture book Samuel has a dollar to spend. 16 pages.
- Andraesen, J., Spalding, Lee-Anne, and **Ortiz, Enrique**. (2010). CliffsNotes FTCE: Elementary Education K-6: Test Prep. Indianapolis, IN: Wiley Publishing, Inc. 360 pages. ISBN: 978-0-470-49906-1, Paperback.
- **Ortiz, Enrique**, Little, Mary and Robertson, Shelby (2009). Mathematics Concepts and Skills Checklist by Grade Level (Grades K-8). Effective Instruction Practices Grant, RtI Teaching Learning Connections. Exceptional Education and Student Services, Florida Department of Education. Tallahassee, FL. This document is available online at <http://www.fldoe.org/ease> and <http://rtitlc.ucf.edu/>.

I use this document as a resource for undergraduate and graduate courses. This is one of many publications available through the Bureau of Exceptional Education and Student Services, Florida Department of Education, designed to assist school districts, state agencies that support educational programs, and parents in the provision of special programs for exceptional students.

This document was developed by RtI Teaching Learning Connections, a special project funded by the State of Florida, Department of Education, Division of Public Schools and Community Education, Bureau of Exceptional Education and Student Services, through federal assistance under the Individuals with Disabilities Education Act (IDEA), Part B.

- **Ortiz, Enrique** (2009). Natalie y la máquina de bolas de mascar: Un modelo para entender el valor de las monedas. Morrisville, NC: Lulu Publishing (<http://www.lulu.com/content/4888738>). ISBN: 978-0-578-00134-0. LCCN: 2008908997. This is a Spanish translation of a children's picture book written and illustrated by the Enrique Ortiz Natalie and the gumball machine: A counting model for understanding the value of quarters. 24 pages.
- **Ortiz, Enrique**, (2009). Ten elephants and a spider's web. Morrisville, NC: Lulu Publishing (<http://www.lulu.com/content/4618650>). ISBN: 978-0-615-26124-9. LCCN: 2008908590. This is a children's picture book written and illustrated by the Enrique Ortiz. It is a bilingual counting book based on a Latin-American rhyme available as electronic or paperback copy. 20 pages.
- **Ortiz, Enrique**, (2008). Natalie and the gumball machine: A counting model for understanding the value of quarters. Morrisville, NC: Lulu Publishing (<http://www.lulu.com/content/4280796>). ISBN: 978-0-578-00135-7. LCCN: 2008908591. This is a children's picture book written and illustrated by the Enrique Ortiz. It provides a

research-based approach to teach the value of coins available as electronic or paperback copy. 24 pages.

- **Ortiz, Enrique**, Gresham, Gina, and Brumbaugh, Douglas (2008). TAG-Middle school math is it! Morrisville, NC: Lulu Publishing (<http://www.lulu.com/content/4221270>). ISBN: 978-0-615-25637-5. LCCN: 2008908593.
- Feldman, C., Heeres, D., **Ortiz, Enrique**, Kallemeyn, E., Regis, T., and Singer, M. (2008). Pre-Transition Mathematics. Usiskin, A., Project Director and McConnell, J., Team Leader. University of Chicago School Mathematics Project (UCSMP). Upper Saddle River, New Jersey: Prentice Hall Publishing Company.

This is a new mathematics textbook intended for 7th grade to be used nationally. I was selected a one of the authors out of 6 finalists for this writing team from 70 applicants from around the world. The Pilot Version of the book was written during eight weeks at the University of Chicago, summer 2005. Pilot testing occurred during the fall and spring 2005. Revisions of the Pilot Test version of the book were completed during eight week at the University of Chicago, summer 2006. A Trial Version of the book was completed and will be tried out during the fall and spring 2006. The Final Version is to be ready by August 2007. The UCSMP includes mathematics textbooks for all the other K-12 grades except for this new book for grade 8. Their elementary school mathematics textbooks (K-6) are best sellers around the country.

- Gresham, Gina, **Ortiz, Enrique**, Brumbaugh, and Douglas (2008). TAG-Math is it! Grades 3-5. Morrisville, NC: Lulu Publishing (<http://www.lulu.com/content/4250285>). ISBN: 978-0-615-25622-1. LCCN: 2008908592.
- **Ortiz, Enrique**, and Andreasen, J. (2007). CliffsTest Prep CSET Mathematics. Indianapolis, IN: Wiley Publishing, Inc. 240 pages.
- Feldman, C., Heeres, D., Kallemeyn, E., **Ortiz, Enrique**, Regis, T., and Singer, M. (Field-Test Version, 2006-2007). Pre-Transition Mathematics. Usiskin, A., Project Director and McConnell, J., Team Leader. University of Chicago School Mathematics Project (UCSMP). Upper Saddle River, New Jersey: Prentice Hall Publishing Company.
- Feldman, C., Kallemeyn, E., **Ortiz, Enrique**, Regis, T. P., and Singer, M. F. (Pilot Version, 2005). Pre-Transition Mathematics. Usiskin, Z., Project Director and McConnell, J., Team Leader. University of Chicago School Mathematics Project (UCSMP). Upper Saddle River, New Jersey: Prentice Hall Publishing Company.
- **Ortiz, Enrique**, and Davenport, T. (2006). CliffsTest Prep FCAT Grade 10 Math and Reading. Indianapolis, IN: Wiley Publishing, Inc. 298 pages. This book is to be used to prepare for the FCAT Grade 10 around Florida.
- Brumbaugh, D., **Ortiz, Enrique**, and Gresham, G. (2006). Teaching Middle School Mathematics. Mahwah, NJ: Lawrence Earbaum Associates, Inc. (blind refereed reviewing process). 328 pages. This book is being used for graduate and undergraduate middle school mathematics methods courses (including MAE 5327 at UCF). The royalties received from the sales of this book at UCF are donated to charity to avoid conflict of interest.
- **Ortiz, Enrique**, and others (2006). The Best Teachers' Test Preparation for the Florida Teacher Certification Exam (FTCE): Professional Education Test, 4th Ed. Piscataway, NJ: Research & Education Associates.

Graduate and undergraduate students applying for teacher certification in Florida, and planning to take the FTCE – Professional Education Test, could use this book.

The 4th edition of REA's test prep for the FTCE's Professional Education Test comes from a team of Florida educators who know the FTCE from the ground up. The subject reviews, covering all

the key pedagogical concepts, theories and relevant laws, enable students to refresh and reinforce their knowledge of Florida teaching competencies.

- **Ortiz, Enrique**, and others (2006). The Best Teachers' Test Preparation for the Florida Teacher Certification Exam (FTCE) with CD-ROM: Professional Education Test, 4th Ed. Piscataway, NJ: Research & Education Associates.

This version of the Best Teachers' Test Preparation for the FTCE comes with REA's TESTware, 4th Edition. Research and Education Association's (REA's) TESTware (CD- ROM) includes the book's three practice exams in an interactive TESTware format. TESTware software features:

- Full-length, timed, computerized practice exams
 - The closest experience to the actual exam on test day
 - Automatic and instant scoring for immediate feedback
 - Detailed, on-screen explanations for all exam questions and essays.
- **Ortiz, Enrique**, and others (2005). The Best Teachers' Test Preparation for the Florida Teacher Certification Exam (FTCE): Professional Education Test, 3rd Ed. Piscataway, NJ: Research & Education Associates.
 - **Ortiz, Enrique**, and others (2005). The Best Teachers' Test Preparation for the Florida Teacher Certification Exam (FTCE) with CD-ROM: Professional Education Test, 3rd Ed. Piscataway, NJ: Research & Education Associates.
 - **Ortiz, Enrique** (2001). Logo computer language. In Louisen S. Grinstein, and Sally Lipsey, Editors. Encyclopedia of Mathematics Education. New York, NY: Garland Publishing. (Peer reviewed.) I was invited to write an entry for this work because of my research background in this area.

The following books are used for as resources in methods courses and workshops (graduate and undergraduate):

- Young, S., and **Ortiz, Enrique** (1987). Mathematics with calculators: Resources for teachers, Fifth Grade. California: Addison-Wesley.
- Young, S., and **Ortiz, Enrique** (1987). Mathematics with calculators: Resources for teachers, Sixth Grade. California: Addison-Wesley.
- Young, S., and **Ortiz, Enrique** (1987). Mathematics with calculators: Resources for teachers, Seventh Grade. California: Addison-Wesley.
- Young, S., and **Ortiz, Enrique** (1987). Mathematics with calculators: Resources for teachers, Eighth Grade. California: Addison-Wesley.

Infographics

- **Ortiz, Enrique** (2016). Problem Solving Process – Second Edition. Canvas Infogram. Retrieved from https://www.canva.com/design/DACAPA2cSg8/YvjQLAqxBudWdUH-4c7zIA/view?utm_content=DACAPA2cSg8&utm_campaign=designshare&utm_medium=link&utm_source=sharebutton.
- **Ortiz, Enrique** (2016). Proceso de Solución de Problemas. Canvas Infogram. Retrieved from https://www.canva.com/design/DACA6z4dj6w/5zlfV5VDKAWnDTdZJpRYgQ/view?utm_content=DACA6z4dj6w&utm_campaign=designshare&utm_medium=link&utm_source=sharebutton.
- **Ortiz, Enrique** (2016). Problem Solving Process. Canvas Infogram. Retrieved from https://www.canva.com/design/DACAPA2cSg8/YvjQLAqxBudWdUH-4c7zIA/view?utm_content=DACAPA2cSg8&utm_campaign=designshare&utm_medium=facebook&utm_source=publish.

Activity in a Book:

- **Ortiz, Enrique** (2006). Calculus Activity. In Douglas K. Brumbaugh, and David Rock, Authors. Teaching Secondary Mathematics, 3rd Edition. Mahwah, NJ: Lawrence Earbaum Associates, Inc. (blind refereed reviewing process).

This book is used for graduate and undergraduate mathematics methods courses nationally.

Monographs:

- **Ortiz, Enrique** (1992). Perceived robustness in a computer-managed learning environment. In B. Fraser (Ed.). The Study of Learning Environments Monographs, 7 (blind refereed reviewing process).
- **Ortiz, Enrique**, and Ellett, C. (1990). Learning, retention, and perceived robustness in a computer-assisted learning environment. In B. Fraser (Ed.). The Study of Learning Environments Monographs, 4, 32-39 (blind refereed reviewing process).

Newsletters:

- **Ortiz, Enrique**. (Summer Issue, 2008). Vice President for College Report. In Additional Dimensions: Official Newsletter of the Florida Council of Teachers of Mathematics, 17 (2).
- **Ortiz, Enrique**. (Fall Issue, 2008). Vice President for College Report. In Additional Dimensions: Official Newsletter of the Florida Council of Teachers of Mathematics, 17 (1).
- **Ortiz, Enrique**. (Fall Issue, 2007). Vice President for College Report. In Additional Dimensions: Official Newsletter of the Florida Council of Teachers of Mathematics, 16 (1).

Modules:

- **Ortiz, Enrique** (2010). Problem Solving Modules: UCARE Inventory. Project Central. Florida Department of Education. This is a Liker scale for assessing activities based on the book *Adding it up!* UCARE stands for the following: understanding, computing, assessing, reasoning, and engaging. It used as a resource for graduate and undergraduate courses. We use it to evaluate commercially available resources and original activities.
- **Ortiz, Enrique** (2008). Assessment of algebraic thinking. Project Central. State of Florida, Department of State.
- **Ortiz, Enrique** (2008). Introduction to Lesson Plans for Algebra Success Keys. In Algebra Success Keys (ASK): Lesson Plans for ASK Facilitators. Project Central. Florida Department of Education.
- **Ortiz, Enrique** (in preparation, 2008). Assessment of algebraic thinking. Project Central. Florida Department of Education.

This is an assessment guide for teachers in the area of algebraic thinking.

- **Ortiz, Enrique** (2007). Lesson plans for Tabula's Mission Electronic Games.

Lesson plans that cover Missions 1 – 20 (of the Single Player Pre-Algebra Tabula Digita product) and include the following items: objectives, alignment with NCTM and Florida Sunshine State Standards, definition of important concepts, assessment items, teacher-directed lesson plans, and inquiry-based lesson plans. NY: Tabula Digita, Inc.

- Ringler, M., **Ortiz, Enrique**, and Little, M. (2007). Algebra Success Keys (ASK) (grades K-12). Project Central. Florida Department of Education.

This is a teacher-training guide for grades K-12. It will be used to train teachers that will in turn train other teachers in the area of algebraic thinking.

- Kitchen, Richard, Rodriguez, Rita, and **Ortiz, Enrique** (Editors) (Spring, 2007). **TODOS: Mathematics for ALL: Bibliography of Diversity and Equity in Mathematics Education**, Second Edition.

The second edition of the bibliography was published as part of volunteer work for the TODOS: Mathematics for ALL, which is an international organization. <http://www.todos-math.org/>

- **Ortiz, Enrique** (2003). Algebraic thinking checklist: A section of the algebraic thinking toolbox. Project Central. Florida Department of Education
- **Ortiz, Enrique** (2003). Using manipulative and ESOL strategies in Math Education: A section of the algebraic thinking toolbox. Project Central.
- **Ortiz, Enrique** (1992). Module for MAE 4326, and MAE 5318. In Multicultural teaching modules: A curriculum source of multicultural experiences for pre-school through high school students. Margaret G. Miller, Project Director. Sponsored by Dr. Phillips Foundation and the College of Education, University of Central Florida, Orlando, Florida.

Report

- Kersaint, Gladis, **Ortiz, Enrique**, and Adams, Thomasenia L. (Summer 2007). Final Report: Voyages Elementary Mathematics Program: The Florida Standards-Based Mathematics Program Research Evaluation Grant. School District of Hillsborough County, Tampa, Florida.

Non-Print Production:

- **Ortiz, Enrique** (2008). Educational audio-tape: Songs for learning the multiplication basic facts.
- **Ortiz, Enrique** (2008). Multicultural video: A visit to a family in Puerto Rico.
- **Ortiz, Enrique** (1987). Instructional Software: Circles - A sample tutorial, using Apple computers, designed to teach the concept of circle. The lesson provides student-computer interaction with remedial feedback and graphics simulations.

Books In Preparation:

- **Ortiz, Enrique** (In preparation, 2014). Teaching Elementary School Mathematics. McGraw Hill. In the process of submitting two chapters for review.
- **Ortiz, Enrique**, (In Preparation, 2014). Natalie and the value of a dollar: A model for understanding the value of dollars. Morrisville, NC: Lulu Publishing. This is a children's picture book written and illustrated by Enrique Ortiz. It provides a research-based approach to teach the value of a dollar available as electronic or paperback copy.
- **Ortiz, Enrique**, (In preparation, 2014). Natalie y el valor de un dolar: Un modelo para entender el valor de los dolares (a Spanish translation of Natalie and the value of a dollar: A model for understanding the value of dollars). Morrisville, NC: Lulu Publishing. This is a Spanish translation of a children's picture book written and illustrated by the Enrique Ortiz.

Presentations/Workshops at Meetings or Conferences

International:

- **Ortiz, Enrique**, and Pace, Michelle (February 18–20, 2016). Wealth distribution as context for teaching mathematics for social justice. Research paper presentation at the International Conference on Poverty, Globalization and Schooling: A Holistic Approach. University of Central Florida campus, Orlando, Florida.
- **Ortiz, Enrique** (January 4–6, 2016). A framework for using virtual manipulative tools such as apps and applets. 2016 International Education Conference in Orlando. Disney's Boardwalk Inn, Lake Buena Vista, Florida.
- **Ortiz, Enrique** (February 26–28, 2015). Challenges and opportunities of teaching mathematics for social justice. Research paper presentation at the International Conference on Poverty, Globalization and Schooling: A Holistic Approach. University of Central Florida campus, Orlando, Florida.
- **Ortiz, Enrique** (May 31–June 3, 2012). Important Ideas Related to Matching Teaching Goals to Teaching and Assessment Practices. Paper presentation at the 2012 Lilly Conference on College and University Teaching. Washington, D.C.
- **Ortiz, Enrique** (September 24–27, 2009). How the Human Brain Performs Mental Calculations. Poster presentation at the Ninth Annual Lilly Conference on College Teaching. Traverse City, Michigan.
- **Ortiz, Enrique** (December 4–5, 2009). A Study of How the Human Brain Performs Basic Mental Calculations. Oral and Poster presentations at the Third International Brain Conference: New Frontiers sponsored by the Orlando Health, Florida Hospital and University of Central Florida. Lake Buena Vista, Florida.
- **Ortiz, Enrique** (May 28–30, 2009). How the Human Brain Performs Mental Calculations. Poster presentation at the Second Biennial of the International Mind, Brain and Education Society. Philadelphia, Pennsylvania.
- **Ortiz, Enrique** (November, 2006). Assessing the development of teaching goals of pre-service teachers. Paper presentation at the Lilly Conference on College Teaching. Miami University, Oxford, Ohio.
- **Ortiz, Enrique** (October 13-15, 2005). Using CRA levels for the development of learning activities and SoTL. Poster presentation at the 35th Annual Conference of the International Society for Exploring Teaching and Learning. Hilton Cocoa Beach Oceanfront, Cocoa Beach.
- **Ortiz, Enrique** (May 12 and 13, 2005). Learning levels of teaching and learning. Paper presentation at the 5th International Conference on the Scholarship of Teaching and Learning (SoTL). London, England.

National:

- **Ortiz, Enrique**, Eisenreich, Heidi, and Tapp, Laura (April 27-May 1, 2017). Pre-service Teachers Understanding of an Interpretive Framework for Analyzing Virtual Manipulatives in the Mathematics Classroom. Research roundtable presentation at the 2017 American Educational Research Association (AERA) Annual Meeting. San Antonio, Texas.
- **Ortiz, Enrique**, Eisenreich, Heidi, and Tapp, Laura (April 3-5, 2017). Pre-service teachers' conceptions of virtual manipulatives. Research paper presentation at the National Council of Teachers of Mathematics (NCTM) 2017 Research Conference. San Antonio, Texas.
- **Ortiz, Enrique**, Eisenreich, Heidi, and Tapp, Laura (February 9-11, 2017). Pre-service teachers' conceptions and misconceptions of physical and virtual manipulatives. Paper presentation at the Twenty-First Annual Association of Mathematics Teacher Educators (AMTE) Conference. Orlando, Florida.
- **Ortiz, Enrique**, and Pace, Michelle (April 13-16, 2016). Wealth distribution as a context for mathematics for social justice. Annual Meeting of the National Council of Teachers of Mathematics and TODOS Annual Conference strand. San Francisco, CA.

- **Ortiz, Enrique** (February 25-27, 2016). Pre-service teachers' implementation of physical and virtual manipulatives. Paper presentation at the Research Council for Mathematics Learning Annual Conference. Orlando, Florida.
- **Ortiz, Enrique** (January 4-7, 2016). A framework for using virtual manipulative tools such as apps and applets. Paper presentation at the Annual Meeting of the College Teaching and Learning Conference. Orlando, Florida.
- **Ortiz, Enrique** (November 6-8, 2015). Teacher Efficacy Academy II. Delta Foundation Conference. Teaching mathematics for social justice. University of Central Florida, Florida. This presentation was presented twice.
- **Ortiz, Enrique** (February, 2015). Challenges and Opportunities of Teaching Mathematics for Social Justice. Association of Mathematics Teacher Educators (AMTE) Annual Conference. Orlando, Florida.
- **Ortiz, Enrique** (April, 2014). Teaching Mathematics for Social Justice as a context for CCSS. Annual Meeting of the National Council of Teachers of Mathematics and TODOS Annual Conference strand. New Orleans, Louisiana.
- **Ortiz, Enrique** (April 15–April, 19, 2013). How the brain's performance during mathematics and reading fluency tests compare. Research poster and paper presentation at the Annual Research Pre-session Meeting of the National Council of Teachers of Mathematics. Denver, Colorado.
- **Ortiz, Enrique** (April 25-28, 2012). Using Origami Activities to Teach Mathematics. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Philadelphia, Pennsylvania.
- **Ortiz, Enrique** (April 8–April 12, 2011). How the brain's performance during mathematics and reading fluency tests compare. Research poster and paper presentation at the Annual Meeting of the American Educational Research Association. New Orleans, Louisiana.
- **Ortiz, Enrique** (April, 2011). The Problem Solving-Response to Intervention alternative to meet students' needs. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Indianapolis, Indiana.
- Little, Mary and **Ortiz, Enrique** (July 19-21, 2010). Response to Intervention (RtI) developments at a higher education institution. Invited presentation at the Annual OSEP Project Directors' Conference of the U.S. Office of Special Education (OSEP) Programs. Washington, D.C.
- **Ortiz, Enrique** (July 7–9, 2010). Using a teaching goals inventory to analyze Noyce Scholars' development of teaching and assessment practices. Workshop presentation at the Noyce Foundation Principal Investigators Conference. Washington, D.C.
- **Ortiz, Enrique** (July 7–10, 2010). Update of Research Findings Related to the Transition into Mathematics and Science Teaching (T-MAST) Scholars. Poster presentation at the Noyce Foundation Principal Investigators Conference. Washington, D.C.
- **Ortiz, Enrique** (April 30–May 4, 2010). Use of Neuroimaging to Clarify How Human Brains Perform Mental Calculations. Research paper presentation at the Annual Meeting of the American Educational Research Association, Denver, Colorado.
- **Ortiz, Enrique** (April 30–May 4, 2010). How the Human Brain Performs Mental Calculations. Poster presentation at the Annual Meeting of the American Educational Research Association, Denver, Colorado.
- **Ortiz, Enrique** (July 1–3, 2009). Noyce Scholars' Perceived Teaching Goals and Implementation. Paper presentation at the Noyce Foundation Principal Investigators Conference. Washington, D.C.
- **Ortiz, Enrique** (July 1–3, 2009). Research Findings Related to the Transition into Mathematics and Science Teaching (T-MAST) Scholars. Poster presentation at the Noyce Foundation Principal Investigators Conference. Washington, D.C.

- **Ortiz, Enrique** (April 22–25, 2009). Optical Topography of Evoked Brain Activity During Mental Tasks Involving Whole Number Operations. Research paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Washington, D.C.
- **Ortiz, Enrique** (June 27-June 29, 2008). Assessing the development of teaching goals of pre-service teachers. Paper presentation at the Noyce Foundation Principal Investigators Conference. Washington, D.C.
- **Ortiz, Enrique** (June 27-June 29, 2008). Research Findings Related to the Transition into Mathematics and Science Teaching (T-MAST) Scholars. Poster presentation at the Noyce Foundation Principal Investigators Conference. Washington, D.C.
- **Ortiz, Enrique** (April, 2008). Pre-service Teachers' Use of Representation Models for Mathematics Learning. Research paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Salt Lake City, Utah.
- **Ortiz, Enrique** (June 27-June 29, 2007). Transition into Mathematics and Science Teaching (T-MAST) Scholars. Poster presentation at the Noyce Foundation Principal Investigators Conference. Washington, D.C.
- **Ortiz, Enrique** (April, 2007). Research finding related to pre-service middle school mathematics teachers' development of teaching goals. Research paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Atlanta, Georgia.
- **Ortiz, Enrique** (January 26-28, 2006). Using the levels of learning as an interpretive framework for mathematics methods. Poster presentation at the Association of Mathematics Teacher Educators. Tampa, Florida.
- **Ortiz, Enrique** (April, 2005). Roll out fractions game: Comparison and equivalent fractions. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Anaheim, California.
- **Ortiz, Enrique** (January 3-7, 2005). Levels of learning in mathematics teaching and learning. Paper presentation at the Annual Meeting of the College Teaching and Learning Conference. Orlando, Florida. This paper was selected as one of the Best Conference Papers.
- **Ortiz, Enrique** (April, 2004). Research findings involving number operations and algebraic thinking games. Research paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics.
- **Ortiz, Enrique** (April, 2003). Algebraic thinking in the elementary schools. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. San Antonio, Texas.
- **Ortiz, Enrique** (March, 2003). Research findings from games involving basic fact operations and algebraic thinking at a Professional Development School (PDS). Paper presentation at the 2003 Professional Development Schools National Conference. Orlando, Florida.
- **Ortiz, Enrique** (March, 2003). Roundtable discussant during the Professional Development Schools National Conference, Orlando, Florida.
- **Ortiz, Enrique** (February, 2003). Research findings from games involving basic fact operations and algebraic thinking at a Professional Development School (PDS). Tabletop presentation at the Holmes Partnership Seventh Annual Conference. Washington, D.C.
- **Ortiz, Enrique** (April, 2002). Strategies and games for memorizing basic facts. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Las Vegas, Nevada.
- **Ortiz, Enrique** (June, 2002). Research findings from games involving basic fact operations and algebraic thinking. Paper presentation at the Renaissance Group annual meeting. Washington, D.C.

- **Ortiz, Enrique** (February, 2002). Development and validation of the concept of variable instrument. Paper presentation at the Research Council for Mathematics Learning. Las Vegas, Nevada.
- **Ortiz, Enrique** (April, 2001). Fraction squares: A game involving fraction concepts and operations. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (February, 2000). Assessing pre-service teachers' learning to use manipulatives to teach operations involving fractions and decimals. Paper presentation at the Research Council for Mathematics Learning. Nevada, Las Vegas.
- **Ortiz, Enrique** (February, 1999). Pre-service teachers' learning to use manipulatives to teach operations involving fractions and decimals. Paper presentation at the Research Council for Mathematics Learning. Annual Conference. College Station, Texas.
- **Ortiz, Enrique** (April, 1998). A geometry game that involves problem solving and cooperative learning. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Washington, DC.
- **Ortiz, Enrique** (February, 1998). Pre-service teachers' learning to use manipulatives to teach whole number operations. Paper presentation at the Research Council of Diagnostic and Prescriptive Mathematics Annual Conference. College Park, Maryland.
- **Ortiz, Enrique** (February, 1997). Assessing pre-service teachers' knowledge of the concept of variable. Paper presentation at the Research Council of Diagnostic and Prescriptive Mathematics (RCDPM) Annual Conference. Oklahoma City, OK.
- **Ortiz, Enrique** (April, 1995). Computers! Music! Fractions?!. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Boston, Massachusetts.
- **Ortiz, Enrique** (February, 1995). Diagnosing the environmental robustness of the mathematics classroom. Paper presentation at the Research Council of Diagnostic and Prescriptive Mathematics Annual Conference. Nevada, Las Vegas
- **Ortiz, Enrique** (February, 1994). A trip to Puerto Rico: A simulation activity developed to raise awareness of cultural pluralism and diversity in the classrooms. Paper presentation at the Fourth Annual National Conference of the National Association of Multicultural Education. Detroit, Michigan.
- **Ortiz, Enrique** (April, 1994). Learning environments and problem solving. Roundtable discussion leader at the Annual Meeting of the American Educational Research Association, New Orleans, Louisiana.
- **Ortiz, Enrique** (April, 1994). Linking music, mathematics and multicultural education. Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics. Indianapolis, Indiana.
- **Ortiz, Enrique** (February, 1993). Alternative assessment methods used in a graduate level diagnostic/prescriptive mathematics course. Paper presentation at the Research Council of Diagnostic and Prescriptive Mathematics Annual Conference. Melbourne, Florida.
- **Ortiz, Enrique** (April, 1992). Perceived robustness in a computer-managed learning environment. Paper presentation at the Annual American Educational Research Association: Special Interest Group meeting of the Study of Learning Environments, San Francisco.
- **Ortiz, Enrique** (February, 1992). Using Logo to help students overcome difficulties with variables. Paper presentation at the Research Council of Diagnostic and Prescriptive Mathematics Annual Conference. New Jersey.
- **Ortiz, Enrique**, and Miller, D. (April, 1991). A comparison of a Logo computer programming and a textbook approach in teaching the mathematics concept "variable". Paper presentation at the Annual Meeting of the National Council of Teachers of Mathematics, New Orleans, Louisiana.

- **Ortiz, Enrique** (February, 1991). Assessing students' algebraic knowledge. Paper presentation at the Annual Conference of the Research Council for Diagnostic and Prescriptive Mathematics, Pomona, California.
- **Ortiz, Enrique**, and Ellett, C. (April, 1988). Environmental robustness and the use of computers on the mathematics classroom. Paper presentation at the Annual Meeting of the American Educational Research Association, New Orleans, Louisiana.
- **Ortiz, Enrique**, and MacGregor, K. (April, 1988). A comparative study of a computer programming approach and a textbook approach in teaching the concept of variable. Paper presentation at the Annual Meeting of the American Educational Research Association, New Orleans, Louisiana.

Regional:

- **Ortiz, Enrique** (October, 1989). Using Logo to teach mathematics concepts. Paper presentation at the Annual Meeting of the Southeastern Regional National Council of Teachers of Mathematics, San Juan, Puerto Rico.

Florida State:

- **Ortiz, Enrique** (April 7, 2017). Reading in a mathematics context: What do we mean by mathematics language? Paper presentation at the 19th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique** (January 24-27, 2017). Analyzing Virtual Manipulatives used for Teaching and Learning. Poster presentation at the 37th Annual National Future of Education Technology Conference (FETC). Orange County Convention Center in Orlando, FL.
- **Ortiz, Enrique** (October 20-22, 2016). Using a new triangular pieces puzzle to teach mathematics. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (April 1, 2016). Going bananas with mathematics: Challenges children may have when learning the language of mathematics. Paper presentation at the 18th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique** (October 15-17, 2015). Using a new triangular pieces puzzle to teach mathematics. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (April 3, 2015). Possible connections between writing and mathematical thinking. Paper presentation at the 17th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique** (October 23-25, 2014). Supporting creative and innovative thinking with outside the box mathematical reasoning. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (October 17-19, 2013). Teaching Mathematics for Social Justice (TMfSJ) as a context for the CCSS Mathematics Practice Standards. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (July 23-24, 2013). Content-Based English Language Learning Strategies: Mathematics: Workshop. English Language Certificate Program. Business Administration Building, University of Central Florida, Orlando, Florida. (51 participants from Brazil)
- **Ortiz, Enrique** (July 22, 2013). Teaching Mathematics for Social Justice (TMfSJ) as a context for implementing the CCSS Mathematical Practices. Presentation for the LAE 5337 students who are part of the RTP3 Grant: STEM Science 6-12: Mathematics and Science. Teaching Academy, University of Central Florida, Orlando, Florida. (80 participants)

- **Ortiz, Enrique** (April 5, 2013). Teaching Mathematics for Social Justice (TMfSJ) as a context for implementing the CCSS Mathematical Practices. Paper presentation at the 15th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique**, Levin, Judith, Walker-Hopp, Carolyn, Stewart-Lue, Martha, and (April 5, 2013). Common Core, Diverse and Urban Learners: Challenges and Opportunities. Presentation at the 15th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- Ehren, Barbara, Clements, Taylor, Skipper, Suzanne (SCPS Representative), **Ortiz, Enrique**, Puig, Enrique, Alvarez, Jasmin (April 5, 2013). Common Core State Standards (CCSS) Panel Presentation. Invited panel presentation at the 15th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique** (October 18-20, 2012). Games That Support Students' Development of Reasoning and Proof. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (April 6, 2012). Brain activity and students' efficiency with solving arithmetic mental tasks. Paper presentation at the 14th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique** (November 1-4, 2011). Optical Topography of Evoked Brain Activity during Mental Tasks Involving Whole Number Operations. 56th Annual Meeting of the Florida Educational Research Association. Orlando, Florida.
- **Ortiz, Enrique** (October 13–15, 2011). Using Origami Activities to Teach Math. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Jacksonville, Florida.
- Chancellor, Carrie (Brevard Schools), Hoover, John (University of Colorado at Boulder), Little, Mary, Kelley, Michelle, Puig, Enrique, Oliver, Edwards, **Ortiz, Enrique** (April 1, 2011). Response to Instruction/Intervention (RtI) Panel Presentation and Town Hall Celebration. Panel presentation at the 13th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique** (April 1, 2011). Problem Solving, RtI and Mathematics Education. Invited paper presentation at the 13th Annual Literacy Symposium. University of Central Florida, Orlando, Florida.
- **Ortiz, Enrique** (Sept. 30–Oct. 2, 2010). How to use the Problem Solving-Response to Intervention alternative. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. ChampionsGate, Florida.
- **Ortiz, Enrique** (June 29-30, 2010). Mathematics Concepts and Skills Checklist by Grade Level (Grades K-8). Presentation at the Summer Mathematics Institute 2010 of the RtI-TLC Grant. Lake Buena Vista, Florida.
- **Ortiz, Enrique** (April 7, 2009). Pre-service Teachers' Use of Learning Levels for Categorizing Learning Activities. Round table presentation and discussion at the UCF SoTL Conference: Faculty Showcase, Orlando, Florida.
- Schnackenberg, Joerg, and **Ortiz, Enrique** (October, 26, 2010). Near Infra Red Spectroscopy and Optical Topography Research Opportunities. Presentation sponsored by Hitachi Medical Corporation, Japan and UCF/**Toni Jennings Exceptional Education Institute**. UCF Teaching Academy, Room 117.
- **Ortiz, Enrique** (October 1–3, 2009). Using Tangrams and Fraction Tiles to Teach Fraction Concepts. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. West Palm Beach, Florida.
- **Ortiz, Enrique** (October 1–3, 2009). How the Brain Works During Mental Tasks Involving Whole Number Operations. Research paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. West Palm Beach, Florida.

- **Ortiz, Enrique** (April 15, 2009). How the Human Brain Performs Mental Calculations. Poster presentation at the UCF-CED 2nd Annual Faculty and Student Research Symposium, UCF Academy for Teaching, Learning, and Leadership.
- **Ortiz, Enrique** (April 1, 2009). How the Human Brain Performs Mental Calculations. Poster presentation at the UCF SoTL Conference: Faculty Showcase, Orlando, Florida.
- **Ortiz, Enrique** and Hunt, Jessica (November, 2008). Whole number computation and logic games. Paper presentation at the “Speak with Hank Kepner, NCTM President at UCF: Teaching to Depth: Implementing the Next Generation mathematics Standards” Conference, Orlando, Florida.
- **Ortiz, Enrique** (October, 2008). Using Origami Activities to Teach Math. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Jacksonville, Florida.
- **Ortiz, Enrique** (April, 2008). Transition into Mathematics and Science Teaching (T-MAST) Scholars. Poster presentation at the Florida Association of Mathematics Teacher Educators Conference at UCF, Orlando, Florida.
- **Ortiz, Enrique** (April, 2008). Transition into Mathematics and Science Teaching (T-MAST) Scholars. Poster presentation at the UCF SoTL Conference: Faculty Showcase, Orlando, Florida.
- **Ortiz, Enrique** (October, 2007). Algebraic Thinking Ideas for Middle School Mathematics. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (April, 2007). Elementary Education Pre-service Teachers’ Use of CRA Levels for Categorizing Mathematics Instructional Activities. Poster presentation at the UCF SoTL Conference: Faculty Showcase, Orlando, Florida.
- **Ortiz, Enrique** (October, 2006). Activities for teaching fraction operations. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (January, 2006). Continuous learning: Self-assessment and action. Invited keynote speaker at the Algebra Success Keys Update Conference as part of the Project Central initiatives. Orlando, Florida.
- **Ortiz, Enrique** (March, 2006). Research efforts in mathematics education. Poster presentation at the Faculty Research Appreciation Day and Vendor Fair. Faculty Showcase, 2006 UCF Research Week: The Best Minds in Action. Orlando, Florida.
- **Ortiz, Enrique** (April, 2006). Middle school mathematics pre-service teachers’ assessment of teaching goals. Poster presentation at the UCF SoTL Conference: Faculty Showcase, Orlando, Florida.
- **Ortiz, Enrique** (April, 2005). Levels of learning in mathematics teaching and learning. Poster presentation at the UCF SoTL Conference: Year of the Scholarship of Teaching and Learning: Faculty Showcase, Orlando, Florida.
- **Ortiz, Enrique** (November, 2005). Using the levels of teaching and learning as an interpretive framework of instructional activities. Paper presentation at the First Fall Drive-In Conference. Orlando, Florida.
- **Ortiz, Enrique** (October, 2005). Using the CRA Levels in the Mathematics Classroom. Paper presentation at the Annual Meeting of the Florida Council of Teacher of Mathematics. Palm Beach, Florida.
- **Ortiz, Enrique** (October, 2004). Roll out fractions game: Comparison of fractions for grades 3-5. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Indialantic, Florida.

- **Ortiz, Enrique** (October, 2003). Using Geoboards to Teach Fraction Concepts and Operations. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Indialantic, Florida.
- **Ortiz, Enrique** (February, 2002). Algebraic thinking in the elementary school grades (K-6). Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (February, 2001). Strategies and games for memorizing basic facts. Paper presentation at the Annual Meeting of the Florida Council of Teachers of Mathematics. Sarasota, Florida.
- **Ortiz, Enrique** (October, 2000). Proportional coins using a dollar bill as a base. Paper presentation at the annual conference of the Florida Council of Teachers of Mathematics. Sarasota, Florida.
- **Ortiz, Enrique** (October, 1999). A new game involving fraction concepts and operations. Paper presentation at the annual conference of the Florida Council of Teachers of Mathematics. Miami, Florida.
- **Ortiz, Enrique** (October, 1998). Counting on coins. Paper presentation at the annual conference of the Florida Council of Teachers of Mathematics. Orlando, Florida.
- **Ortiz, Enrique** (October, 1997). Using tangrams to teach area ideas. Paper presentation at the annual conference of the Florida Council of Teachers of Mathematics. Fort Lauderdale, Florida.
- **Ortiz, Enrique** (October, 1996). Using music to teach math: A multicultural approach. Paper presentation at the annual conference of the Florida Council of Teachers of Mathematics. Daytona Beach, Florida.
- **Ortiz, Enrique** (February, 1994). The TechnoZoo activity: Integrating mathematics, science and technology. Paper presentation at the 14th Annual Florida Educational Technology Conference. Tampa, Florida.
- **Ortiz, Enrique** (October, 1993). Math hopscotch: Students practice basic facts as they hop. Paper presentation at the annual conference of the Florida Council of Teachers of Mathematics. Jacksonville, Florida.
- **Ortiz, Enrique** (October, 1993). Multicultural education and the teaching of mathematics activities. Workshop presentation at the annual conference of the Florida Council of Teachers of Mathematics. Jacksonville, Florida.
- **Ortiz, Enrique, Everett, R., and Holt, L.** (February, 1993). Integration of technology into teacher education programs. Paper presentation at the Florida Educational Technology Council Annual Conference. Tampa, Florida.
- **Ortiz, Enrique** (October, 1992). An exploratory study of a computer-managed instructional and a regular mathematics instructional environment. Paper presentation at the annual conference of the Florida Council of Teachers of Mathematics. Ft. Walton Beach, Florida.
- **Everett, Robert, Holt, Larry and Ortiz, Enrique** (October, 1992). The integration of educational technology into the undergraduate teacher education curriculum. Paper presentation at the annual conference of the Florida Association of Science Teachers.
- **Ortiz, Enrique** (October, 1991). Assessing students' algebraic knowledge. Paper presentation at the Annual Conference of the Florida Council of Teachers of Mathematics. St. Petersburg, Florida.
- **Ortiz, Enrique** (February, 1991). Using Logo programming to teach the mathematics concept "variable". Paper presentation at Florida Educational Technology Conference, Tampa, Florida.

Research Grants/Funds

Proposals Funded:

- **Ortiz, Enrique** (Summer, 2017). Integration of Case Study Research Methods in an Undergraduate Mathematics Education Course. UCF FCTL Summer Faculty Development Conference 2017. Quality Enhancement Plan (QEP) track. Theme, *What's Next: Integrative Learning for Professional and Civic Preparation*, and that seek to improve undergraduate student learning at UCF. This project supported the development of a research study involving the use case studies as a research method in undergraduate elementary education mathematics methods course (MAE 4326 Helping children learn mathematics. \$800.00
- **Ortiz, Enrique** (Fall 2016). Research Coach Scholarships for High-Impact Undergraduate Research Experiences. \$300.00 for an undergraduate student work as a research coach. Research coaches are undergraduate or graduate students who are hired by faculty exclusively to assist undergraduate students with course-integrated research projects. Similar successful research coach programs are in place at Florida State University and University of North Carolina-Chapel Hill.
- PI: Little, Mary; Co-PIs: Drs. Wenzel, Taylor, Farshid Safi & **Ortiz, Enrique** (Fall 2016-Summer 2017). Implementing Intensive Interventions in Reading and Mathematics to Improve Student Learning. Toni Jennings Grant. White Paper. \$15,000.00
- PI: **Ortiz, Enrique**; Co-PIs: Drs. Wenzel, Taylor & Little, Mary (Fall 2015-Summer 2016). Improving Rigor and Impact of Reading and Mathematics Interventions with Students. Toni Jennings Grant. White Paper. \$3,500.00
- **Ortiz, Enrique** (Fall, 2015). UFF-UCF Travel Gap Grant Program. \$500.00
- **Ortiz, Enrique** (Summer, 2015). Integrating research methods into an undergraduate elementary education mathematics methods course. UCF FCTL Summer Faculty Development Conference 2015: Office of Undergraduate Research. This project supported the implementation of undergraduate research involving mathematics with elementary education undergraduate students. \$800.00
- **Ortiz, Enrique** (Summer, 2014). UCF FCTL Summer Faculty Development Conference 2014: STEM Proposal Writing Track. This project supported the development of a research grants involving the use Optical Topography to study mathematics fluency. \$800.00
- **Ortiz, Enrique** (Spring, 2014-Summer 2014). Use of the concrete, pictorial, abstract and virtual levels in mathematics teaching by pre-service teachers. (Two Doctoral students participated in the data collection and analyses of the data from this study, including writing and article and research paper presentations). Toni Jennings Grant, \$3,587.00
- **Ortiz, Enrique** (Spring, 2014-Summer, 2014). Brain activity of students during mental calculations. CEDHP Major Grants Development Stimulus Initiative. (Graduate and undergraduate students will participate). One course reassignment and \$500.00 for travel to interview grant agent.
- Dicker, L., **Ortiz, E.**, and Jeanpierre, B. (Summer, 2002-present). Transition to Mathematics and Science Teaching (T-MAST) program. I coordinate the mathematics portion of the T-MAST program. \$2.5 million endowment from Lockheed Martin Corporation. We meet regularly to coordinate the offerings of this program. It serves as a support program for students in the MAT in middle school mathematics graduate program.

This grant is part of the Lockheed/UCF Academy/Endowment programs. It is a new graduate program that brings a cohort of students to complete the middle school mathematics or science teacher certification. These are students who have complete bachelor's degrees in an area other than mathematics or science education, and will complete a Master of Arts in Middle School

Mathematics or Science Education.

AACTE President Cites TMAST Program as Exemplary (2011): AACTE President, Sharon Robinson cited the STLL Mathematics Education master's degree program, TMAST, as an example of a program that is responsive to achievement goals for PK-12 students and related needs for the teacher workforce. She made this comment in her response to the movement that master's degree attainment will no longer be considered as part of the reward system for teachers. While she lauded the UCF program, she warned that there *should be* a "rethink" of many master's programs. AACTE is collaborating with the Data Quality Campaign to encourage state collection of reliable impact data and in research on their proper use to evaluate preparation programs.

AASCU Innovations Exchange (2011): TMAST is noted nationally by the American Association of State Colleges & Universities (AASCU) Innovations Exchange.

- Dicker, L. (Director), and Associate Directors: **Ortiz, E.**, Dixon, J., and Jeanpiere, B. (Spring, 1992-present.) Lockheed/UCF Academy for Teaching Science and Mathematics.

Awards: Christa McAuliffe Award for Excellence in Teacher Education. UCF received this national award from the American Association of State Colleges and Universities. This was given in recognition of its efforts to improve mathematics and science education.

Lockheed/Martin (LM) agreed to contribute \$1,005,000 over four years to the UCF foundation for the purpose of endowing the Academy. UCF has been granted to the State University System through its Eminent Scholars Program for money (\$758,000) to match the LM gift when it is complete. Funds for start-up phase of the Academy have been received through the Teacher Enhancement program of NSF (\$875,000), and additional partners have been sought to support the start-up phase of the Academy and to augment the planned activities of the Academy. The purpose Academy is to assist school districts in the improvement of the teaching and learning of mathematics and science. In the program elementary and middle school teachers known as Martin Marietta Scholars will be trained to serve as school-based leaders in mathematics and science education. While in the Academy, Scholars will improve their content knowledge, learn about new methods of instruction, and receive leadership training. This partnership involves LM and UCF as sponsors, Orange, Seminole and Osceola Counties (other counties will be involved in the future), the State University System, and the National Science Foundation. The funding concept provides for the longevity of the program. The candidate's involvement and association with the Academy has been in terms of curriculum, research and program developments. He has taught and adapted a course (SCE 6616 - Mathematics/Science Curriculum and Instruction, Spring and Summer 1993) for this program. As a result of the LM/UCF Program, the Math/Science Group has been formed and meets regularly in order to create and take action in different initiatives. He has participated in development of the Strategic Plan and the LM/UCF Program Brochure. The Small Rocket Applications for Teachers Grant (Florida Space Grant Consortium, \$10,000) is part of an initiative for finding new partners and creating a new course for the LM/UCF program. In terms of research, he is in the process of collecting and analyzing qualitative data regarding some of the Martin Marietta Scholars' personal curriculum knowledge. Paper presentations and articles are being developed based on research efforts and curriculum developments.

- **Ortiz, Enrique** (Spring 2014). UCF College of Education, Coyle Fund for Professional Development to present research paper at the 2014 NCTM Meeting and Exposition, Philadelphia. \$500.00
- **Ortiz, Enrique** (Spring 2013). UCF College of Education, Coyle Fund for Professional Development to present research paper at the 2013 NCTM Meeting and Exposition,

- Philadelphia. \$500.00
- **Ortiz, Enrique** (Spring 2012). UCF College of Education, Coyle Fund for Professional Development to present research paper at the 2012 NCTM Meeting and Exposition, Philadelphia. \$1,000.00
- **Ortiz, Enrique** (June 28-30, 2011). POGIL Southeast Regional Meeting at Franklin and Marshall College, Lancaster, PA. Scholarship provided for participation in the meeting and workshops by the POGIL Project, NSF Grant, including housing, meals, and materials for workshops. \$1,000.00
- **Ortiz, Enrique** (Summer, 2011). UCF FCTL *Writing Your Journal Article in 12 Weeks* Workshop. This project supported the development and publication of a professional article. \$500.00

The article developed using these funds was the Optical Topography of Evoked Brain Activity during Mental Tasks Involving Whole Number Operations. This is a report of a study using Functional Near-Infrared Spectroscopy (fNIRS) imaging system to measure changes in the relative concentration of hemoglobin in the cerebral cortex as individuals retrieve arithmetic facts from memory. By illuminating the surface of the brain with near-infrared light, changes in the concentrations of oxygenated and deoxygenated hemoglobin were monitored and studied in order to make assertions related to brain activation during cognitive tasks. Eleven undergraduate and graduate college-level students participated in scanning sessions, and mentally solved as many arithmetic facts as possible during twelve 30-second tasks (two per operation) with 20 seconds resting periods between tasks. The research findings support previous reports related to the areas of brain activation during arithmetic fact retrieval from memory and indicate that participants had different levels of brain activation (from low to significant). More “efficient” performers presented lower activation levels. Exit interviews revealed that participants used different mental strategies, which were related to levels of brain activation. Pedagogical implications were explored.

- **Ortiz, Enrique** (Summer, 2011). UCF FCTL Summer Faculty Development Conference 2011. This project supported the development of a research study involving the use of clickers in an undergraduate elementary education mathematics methods course. \$800.00

This study was developed to investigate the effectiveness of my efforts to promote more students' involvement in learning as part of an undergraduate mathematics methods course (MAE 4326 Elementary Education Mathematics Methods) I teach, and students' incorporation of inquiry-based activities in their own teaching activities during field experiences at elementary schools. These efforts were supported by incorporating the use of Process-Oriented Guided-Inquiry Learning (POGIL) in three class activities, and the use of the Promethean Interactive Whiteboards and clickers available in one of the Teaching Academy classrooms (TA 203). I wanted to know if the use of POGIL helped students improve their (1) attitudes toward mathematics, (2) perception of the environmental robustness of the classroom, and (2) implementation of inquiry-based activities in their mathematics activities (lesson plans and case studies) developed for field experiences at elementary schools during the fall 2011 and spring 2012 semesters. I also wanted to know if the environmental robustness as perceived by participants improves (before and after the study). The construct of environmental robustness comes from research carried out by Licata and Willower (1978).

- Little, Mary, **Ortiz, Enrique**, and Scharlach, Tabatha (Fall 2009-Summer 2010). Response to Intervention - Teaching Learning Connections (RtI-TLC) - Account Number: 14277072. NSF Grant managed by FL Department of Education. \$887,000.00

Materials from this grant are being used as resources in my graduate and undergraduate courses.

- **Ortiz, Enrique** (Fall 2009-present). Optical Topography of Evoke Brain Activity During Mental Arithmetic Tasks Involving Different Operations and Procedure Complexity. Follow-up research study involving the Optical Topography System (\$350,000.00) from the Hitachi Medical Corporation, Japan. Hitachi Medical Corporation provided access to the Optical Topography System at no to UCF, including training from an expert from Japan. Toni Jennings Exceptional Education Special Initiative Award. \$4,000.00

I have used findings from this study to analyze my teaching practices. I am in the process of developing follow up study involving the implementation of the findings from this study.

- **Ortiz, Enrique** (2006-2010). Noyce Foundation Grant for Transition to Mathematics and Science Teaching (T-MAST) candidates. This is an NSF managed grant that is renewable each year. \$352,939.00. PI - #14-23-6004. Extensions of the grant were allowed for years 2007-20010. The PI has applied for an extension of the grant for 2008-2010.

Funding from this grant was used to provide graduate students in the MAT in middle school mathematics program. I was involved as a recruiter, academic advisor and mentor for the participants.

The Noyce Foundation is completely dedicated to improving instruction in math, science, and early literacy in U.S. public schools. The Foundation funds and develops organizations that support the improvement of teaching in these core areas as well as research and policy initiatives to inform and support policymakers at all levels to use resources wisely to build strong teacher corps. The Foundation's work is geographically focused where Noyce family members live -- primarily in the Silicon Valley and Massachusetts. All work is designed around the following principles:

- Great accomplishments are realized when optimism guides and inspires bold learning.
- Creativity and risk taking are the bedrock of innovation and essential to forging a healthy democracy.
- Determination to reach high levels of achievement is fundamental to attaining excellence.
- Social innovation requires commitment to stay the course.
- Flexibility and speed allow us to respond to new opportunities and changing situations.

Noyce Fellowships for \$10,000 are available for 10 candidates with a degree in mathematics, science, engineering, or technology. The recipients of the Noyce Fellowships must agree to teach in a high-needs school district for two years within six years of graduation.

- **Ortiz, Enrique** (Fall 2009). UCF College of Education, Coyle Fund for Professional Development to present research paper at the Lily 2009 Conference at Traverse City. \$900.00
- **Ortiz, Enrique** (Fall 2008). UCF College of Education, Coyle Fund for Professional Development to present research paper at the National Council of Teachers of Mathematics 2009 Annual Conference. \$1,000.00
- Kersaint, Gladis, **Ortiz, Enrique**, and Adams, Thomasenia L. (Spring 2007 – Summer 2007). Voyages Elementary Mathematics Program: The Florida Standards-Based Mathematics Program Research Evaluation Grant. School District of Hillsborough County, Tampa, Florida. \$45,000.00
- Hynes, Mike, **Ortiz, Enrique**, Lewis, Nancy, and Jeanpierre, B. (Fall 2005 – Spring 2008). Provost's Targeted program award. \$69,000.00 for three years.
- Little, Mary (Principal Investigator), and **Ortiz, Enrique**. (Summer 2000-Spring 2009). Project Central. Bureau of Instructional Service and Community Support at the Department of Education, Florida Department of Education. Multi-Year: 900,000.00

- Liker scale for assessing an activity level of accomplishment based on the *Adding it up!* framework: Understanding, Computing, Assessing, Reasoning, and Engaging.
- Help in the development of a module for teacher development in the area of problem solving (Fall, 2008).
- Develop a concept and skills checklist aligned with the New Generation Florida Sunshine State Standards (Fall 2008).

This is a comprehensive, statewide project designed to identify and disseminate information about resources, professional development, and research related to current and emerging effective instructional practices. The main focus of recent efforts has been algebraic thinking. The ultimate goals are to provide professional development activities, products, and other resources to ensure quality outcomes for all students in Florida, including students with disabilities. The audience includes special and regular education teachers of students with disabilities eligible under Section 504, and students at risk for referral to programs for students with disabilities. As part this project, the researcher has served as Co-principal Investigator and Mathematics Consultant, developed a workshop involving algebraic thinking, and is in the process of collecting data as part of a research study. The purpose of the study is to provide evidence of the impact of the Algebra Key to Success: Algebraic Thinking Strategies, developed by this project, on PK-12 students' learning. Also, the participating teachers will be trained and use Action Research in their classrooms.

- **Ortiz, Enrique** (Summer 2005, and Summer 2006). SoTL Section of The FCTL Summer Conference Grant. \$1,000.00 each.
- **Ortiz, Enrique** (Fall 2001-Summer 2002). The Renaissance Group Research Fellowships for Faculty, 2001-2002. \$4,500 + \$1,225 UCF matching funds = \$5,725 total funds.
- **Ortiz, Enrique**, and others (Fall 2000-Spring, 2001). Graduate Studies Recruitment and Enhancement Grant. UCF. \$5,000.00

This grant provided support to develop a web-site (<http://reach.ucf.edu/~elemed2>), recruit new student, research the needs of graduate students, hire a graduate assistant to help in the collection of data, and revise the program sequence and offerings within the Master of Education in Elementary Education.

- **Ortiz, Enrique** (Fall, 2000-Spring, 2001). IDL 6543: UCF Course Development Grant. \$2,000.

This included training in the use and development of webpage and internet technology to enhance and support teaching for EDE 6933 Elementary Education Seminar I, and EDE 6935 Elementary Education Seminar II. The participant learned how to use Web-CT and Dreamweaver (among other instructional software). A laptop computer was given to the department to be used by the participant.

- West, Gail, Principal Investigator, Blanes, Maria, **Ortiz, Enrique**, Pagan, Magie, Hutchinson, Cyndee, and others (2000-2004). Jericho Project. \$150,000.00

Several faculty developed this grant for a new federal grant (USOE) related to infusion of ESOL (English for Speakers of Other Languages) strategies in the teacher certification programs. I help write the proposal and am working as a mentor for the mathematics/science faculty. A folio for review was developed and approved by the Florida Department of Education for adding the ESOL endorsement to the students' diploma and teacher certification.

- West, Gail, Principal Investigator, **Ortiz, Enrique**, Blanes, Maria, Pagan, Magie,

Hutchinson, Cyndee, and others). (2000-2005). Summer Institute Proposal. Infusing ESOL Competencies Across the Teacher Education Curriculum (Summer, 2000).

- Mitchell, Debbie, Principal Investigator. Teacher Technology Learning Community Grant. Faculty Consultant, and Participant as part of a committee of writers of lesson plans for this project (Fall 1999-Spring 2002). \$188,000.00

Objectives for this grant: 1. Assess, provide training and technical support to assist faculty (COE and A&S) in modeling technology-proficient instruction, particularly in the courses where pre-service teachers acquire subject area expertise that they will use in the classroom. 2. Develop network learning communities by expanding and enhancing consortium partnerships. The College of Education will first begin by enhancing and strengthening the cross-disciplinary partnerships between the College of Education and the College of Arts and Science.

- **Ortiz, Enrique**, and Johnson, J. (Summer, 1993). Multicultural workshop for K-8 teachers of mathematics and science. Eisenhower Grants. Florida Department of Education. \$62,595.

This project will reach K-8 teachers of mathematics in Orange, Osceola, and Seminole counties. The interface between these teachers and the project will be in the Lockheed/UCF Academy for Mathematics and Science Education. By using teachers in the Academy program and graduates of the program in a trainers of trainers model, teachers over 50 schools will receive training in multicultural issues relating to mathematics and science education.

- **Ortiz, Enrique** (Summer, 1992-December, 1994). Development and validation of the knowledge of the concept of variable instrument. DRS In-House Research Grant Program. \$4,960.00

The amount of evidence indicating students' misconceptions of the concept of variable, and the fact this concept is one of the few unifying themes in mathematics support the need for more research in this area. The development of a valid and reliable instrument that will assess students' knowledge of this concept is necessary in order to analyze the effectiveness of instructional approaches, and to analyze normative data on students' knowledge of this concept. The main purpose of this proposal is to develop a paper-and-pencil instrument that can be used to assess students' knowledge of this concept.

- Miller, Margaret (Director) (Fall, 1992-Spring, 1993.) Global perspectives: In-service workshop component of the multicultural modules for Dr. Phillips High School. Dr. Phillips Foundation Grant, Orange County Public Schools, Orlando, Florida. Faculty Associates: Allen, K., Hutchinson, C., Johnson, J., **Ortiz, Enrique**, and Robinson, M. \$900.
- Miller, Margaret (Director) (Summer, 1992-Fall, 1992). Development of modules for integrating multicultural education into several of the College of Education courses. Faculty Associates and Multicultural Modules Development Team: Kay Allen, Beckey Bailey, Marty Bell, Karen Biraimah, Donna Camp, Lee Cross, Cyndee Hutchinson, Judy Johnson, **Ortiz, Enrique**, Joanne Ratliff, and Maureen Robinson. \$15,000.

A group of instructors served as advisors, reviewers, and developers of modules for the integration of multicultural concerns in the methods courses and other courses. The College of Education will use these modules as a model.

- Bozeman, Bill (Director) (Summer, 1991-Spring, 1992). Integrating technology into elementary and secondary math and science (InTech). Faculty Associates: Larry Holt, Robert Everett, and **Ortiz, Enrique**. Department of Education, Tallahassee. \$65,000.

The above instructors formed the InTech Training Team in order to: 1. participate in training programs, 2. provide initiatives in the integration of technology in the College of Education undergraduate and graduate courses, and 3. disseminate the finding of the project with the College, state and national faculty members through paper presentations, workshops, articles and reports.

- **Ortiz, Enrique** (Spring, 1988). Computer programming effects on fifth and sixth grade students' learning and retention of the concept of variable. College of Education Committee on Organized Research, University of New Orleans. New Orleans, Louisiana. \$120.

The purpose of this project was to compare fifth and sixth-grade students' learning and retention of the concept of variable in a traditional textbook approach and a Logo computer programming approach.

Proposals Submitted:

- PI: **Ortiz, Enrique**; Co-PIs: Drs. Clark, M.H. (2016), Reinerman, Lauren. Use of Optical Topography (fNRI) System to Study Mathematical Fluency NSF 13-555 - EHR Core Research (ECR). \$499,999.00. Resubmitted.
- PI: Olan, Elsie, CoPIs: **Ortiz, Enrique**, & Jeanpierre, Bobby (Fall 2016: 6/1/2017-5/31/2018). A Model for Interdisciplinary and Intergenerational Community-based Partnerships to Support Informal STEM Learning. Advisory Board for Advancing Informal STEM Learning (AISL). \$149,990
- PI: **Ortiz, Enrique**; Co-PIs: Drs. Wenzel, Taylar & Little, Mary (Fall 2015). Improving Rigor and Impact of Reading and Mathematics Interventions with Students American Honda Foundations, Honda Foundation Grant. White Paper. \$67,043.00
- PI: Dr. Biraimah, Karen; Co-PIs: Drs. Butler, Malcolm, Grissom, Donita, Haciomeroglu, Erhan, Hartshorne, Richard, Hutchinson, Cynthia, Jeanpierre, Bobby, Nutta, Joyce, **Ortiz, Enrique**, Russell, William, Waring, Scott (2016). IREX: Teaching Excellence and Achievement Program (TEA), Seminars and Workshops, University of Central Florida Proposal.
- PI: **Ortiz, Enrique**; Co-PIs: Drs. Clark, M.H. (2015), Reinerman, Lauren. Use of Optical Topography (fNRI) System to Study Mathematical Fluency NSF 13-555 - EHR Core Research (ECR). \$499,989.00.
- PI: Drs. Mouloua, Mustapha; Co-PIs: **Ortiz, Enrique**, Diziuban, Charles, Neider, Mark, Bohil, Corey, and Jeanpierre, Bobby (submitted in October, 2014). Advancing STEM Education at the Pre-K-12 school levels by integrating instructional technologies and teachers mentoring programs. NSF 13-601: Discovery Research K-12. \$2,000,000.00
- PI: Drs. Jeanpierre, Bobby, Co.PIs: **Ortiz, Enrique**, and Olan, Elsie (2013). Algebra One: The Gatekeeper to STEM Careers: Preparing Teachers to Teach for Understanding. Independent Grant for Orange County Public Schools System (OCPSS).
- PI: Drs. Mouloua, Mustapha; Co-PIs: **Ortiz, Enrique**, Diziuban, Charles, Diphoye, Robert, Neider, Mark, and Bohil, Corey (November, 2012). Empowering K-12 children with innovative Technologies through STEM Learning opportunities and research experiences (STEM LORE). NSF 12-597: Innovative Technology Experiences for Students and Teachers (ITEST). \$1,145,230.70
- **Ortiz, Enrique** (January 12-14, 2013). POGIL Facilitator Training at Myrtle Beach, SC. Scholarship provided for participation in the meeting and workshops by the POGIL Project, NSF Grant, including housing, meals, and materials for workshops. Three-day POGIL professional development workshop with a focus on workshop facilitation. \$1,000.00

- Biraimah, Karen, **Ortiz, Enrique** (2012). IREX: Teaching Excellence and Achievement Program (TEA) Host University Proposal.
- Young, Cynthia, (Principal Investigator), Swanson, Jason, and **Ortiz, Enrique** (2012). UCF TUES: Assessing Impact on Student Learning and Disposition After Viewing Khan Academy (Procedural) and WHYU (Conceptual) Videos. Transforming Undergraduate Education (TUE) in Science, Technology, Engineering and Mathematics: Course, Curriculum, and Laboratory Improvement (CCLI). \$197,565
- **Ortiz, Enrique** (Principal Investigator) (2010). Use of an fNIRS System to Enhance the Area of Mind, Brain and Education Research. NSF Fostering Interdisciplinary Research on Education (FIRE) Grant. \$544,397.
- **Ortiz, Enrique** (Principal Investigator) (2010). Acquisition of an fNIRS System to Enhance the Area of Mind, Brain and Education Research. NSF Major Research Instrumentation Grant. Submitted proposal for UCF internal review. \$346,930.
- Traas, Adam, and **Ortiz, Enrique** (Submitted, Fall 2008). Visualization in students: Increasing positive visualization using dynamic imagery of orthographic and isometric representations. National Council of Teachers of Mathematics, Mathematics Education Trust (MET). Teacher-Initiated Proposals for 2009-2010 MET Awards, Grants, and Scholarships: Classroom-Based Research Grant (K-12). \$8,000
- Little, Mary (Principal Investigator), **Ortiz, Enrique**, Hahs-Vaughn, Debbie (2007, Resubmitted, 2008). Improving Pedagogical Content Knowledge of Algebra Teachers in Urban Schools. Institute of Educational Sciences US Department of Education (IES, USDOE). C&G External: \$4,408,737.94 (three years). ID: 1047849.

This Teacher Quality Research Program will test the efficacy of a fully developed intervention, Algebra Success Keys (ASK) to improve the pedagogical content knowledge in algebra of middle school teachers using online and in-class instructional coaching methods to produce increased student learning and school achievement in mathematics. The theoretical basis of ASK uses developmental, cognitive approaches to instruction (Little, in press; Mercer & Miller, 2002; Montague, 2005; Witzel, 2005). Initial validation studies suggest that students in ASK classrooms improved substantially on the Florida Comprehensive Assessment Test (FCAT) in mathematics. Classroom implementation of the fully-developed Algebra Success Keys (ASK) intervention program by middle school mathematics teachers will be researched by comparing two methods of sustaining professional development (online and in-class coaching) to determine which conditions and procedures improve teacher pedagogical knowledge in algebra and increase mathematics achievement by students with diverse needs.

- **Ortiz, Enrique** (Principal Investigator), Lewis, N., and Jeanpierre, B. (2007, Resubmitted). Pre-service teachers' transition to the mathematics and science classroom. \$300,000.00
- **Ortiz, Enrique**, and Sivo, S. (Resubmitted, 2007). Longitudinal study of algebraic thinking. Department of Education Mathematics and Science Grant. \$250,000.00
- Lewis, N., Jeanpierre, B., and **Ortiz, Enrique**. (2005). Pre-service teachers' transition to the mathematics and science classroom. \$280,000.00
- **Ortiz, Enrique**. (2004). Study of algebraic thinking (Kindergarten – Third-Grade). USF Multi-university grants. Planning proposal. \$150,000.00
- **Ortiz, Enrique**, and Harp, S. (2003). Development of a module for training teachers about brain-based research best practices in mathematics and science education. USF Multi-university grants. Planning proposal. \$5,000.00
- Johnson, J., and **Ortiz, Enrique**. (Summer, 1993.) Multicultural mathematics/science education project: A model of reform. National Science Foundation. \$496,488.

The main purpose of this project is to develop a new course integrating mathematics, science, and different multicultural concerns. The Lockheed/Martin/UCF Academy graduates will be involved in the preparation of this course. This course will become a required course for the Martin Marietta/UCF Scholars.

- **Ortiz, Enrique** (Spring, 1993). Teaching of the concept of variable to sixth through ninth grade students. National Science Foundation: Field Initiated Studies. \$103,419.

This project will extend the findings of a previous research on the development of a valid and reliable instrument that assesses students' knowledge of the concept of variable, as it relates to four different conceptions of algebra, and the use of alternative assessment methods in the area of algebra. The present proposal main objectives are the following: Sixth through ninth grade teachers will be trained in diagnostic-prescriptive and other alternative assessment techniques involving the different uses of variables, and sixth through ninth grade students will be diagnosed in their knowledge of the concept of variable and prescriptive lessons plans prepared in order to meet their needs.

- Johnson, J., **Ortiz, Enrique**, and Musser, K. (November, 1992). Changing the odds: A model building project. Preliminary Proposal: American Honda Foundation. \$70,000.

The purpose of this project is to develop a model, which will provide experiences, promote life skill development and enhance literacy in science, mathematics, and technology. The target audience is children who live in homeless shelters, and, ultimately for all children who may have been homeless, are at risk for homelessness, or are disadvantaged by poverty and home circumstances.

- **Ortiz, Enrique** (February, 1992). Development and validation of the knowledge of the concept of variable instrument. Preliminary Proposal: National Science Foundation: Instructional Materials Development Program. \$109,500.
- **Ortiz, Enrique** (February, 1992). Knowledge of different uses of the concept of variable: Development and applications. Preliminary proposal: National Science Foundation: Research in Teaching and Learning - Division of Materials and Development, Research and Informal Science Education. \$61,667.
- **Ortiz, Enrique** (February, 1992). Development of validation of the knowledge of the concept of variable instrument. Florida Council of Teachers of Mathematics: Kenneth Kidd Grant. \$1,000.
- **Ortiz, Enrique** (January, 1992). Assessment of students' knowledge of different conceptions of algebra. National Science Foundation: Field Initiated Studies. \$61,668.
- **Ortiz, Enrique** (Spring, 1992). The Achievement Academy: Teaming and technology to improve LEP student performance in mathematics and science. Preliminary Proposal (UCF/Orange County): National Science Foundation: The Directorate for Education and Human Resources - Partnership for Minority Student Achievement. \$156,975.
- **Ortiz, Enrique** (March, 1991). Using diagnostic/prescriptive procedures to teach mathematics in grades 2-4. Preliminary Proposal: National Science; Foundation: Instructional Materials Development Program. \$236,000.
- **Ortiz, Enrique** (Summer 1991-June 1992). Development and validation of the knowledge of the concept of variable instrument. DSR In-House Research Grant Program. \$4,960.
- **Ortiz, Enrique** and others. (January, 1989). In-service training in the use of computer algebra systems. Louisiana Board of Regents: Dwight D. Eisenhower Mathematics and Science Education Grants Program. \$36,000.

Independent Research:

- Brooks, Lisa Ann, Principal Investigator (Fall, 2016-present). **Ortiz, E.**, Project Advisor. Examining the Classroom Norm of Raising a Hand to Speak in College Methods Classes.
- **Ortiz, Enrique** (Fall 2015-present). Lessons Learned from Pre-service Teacher's Assessment Reports: Response to Intervention (RtI)/Multi-Tiered Support System (MTSS) in Mathematics Case Studies and Diagnostic/Prescriptive Reports. Reports from MAE 4326 will be used to assess pre-service teachers' understanding and implementation of assessment techniques.
- **Ortiz, Enrique** (Spring 2015-present). Development and pilot testing of the triangle puzzle. I have developed an original puzzle involving triangle pieces. Activities involving the puzzle have been pilot tested in the MAE 4326 class, and fourth and fifth grade classes at Goldsboro Elementary School, Sanford, Florida. <https://www.facebook.com/triangle.puzzle;>
http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=triangle+puzzle+enrique+ortiz&rh=i%3Aaps%2Ck%3Atriangle+puzzle+enrique+ortiz
- **Ortiz, Enrique** & Pace, Michelle (Spring 2015-present). Wealth distribution as a context for mathematics for social justice. Study carried out at Goldsboro Elementary School, Sanford. This is based on an activity I developed based on a survey created by National Public Radio.
- **Ortiz, Enrique** (Spring 2015-present). Pre-service teachers' use of physical and virtual manipulative learning tools for a school-based culminating experience. The purpose of this study is to analyze pre-service teachers' use of physical and virtual manipulative learning tools during a school-based internship culminating experience. This study will investigate UCF CEDHP pre-service teachers' (graduate and undergraduate students') use of physical and virtual manipulative learning tools to meet K-12 grade students' learning needs in a capstone project previously completed during their internship (at public schools). Only the reports related to mathematics topics will be included as part of the sample. These documents are archived in the UCF CEDHP Clinical Experiences Office. The culminating experience involves the implementation of lesson plans for teaching a content area. The content area for this study is mathematics at the elementary and secondary school levels. A framework developed by the principal investigator will be used to analyze the presence of physical and virtual manipulatives.
- **Ortiz, Enrique** (Spring 2013-present). A pre- and post-test comparison of the effectiveness of physical manipulatives versus virtual manipulatives (Apps) in elementary education students' learning and implementation of cognitive levels during a mathematics methods course. Apps were installed in 50 iPads (free and other costing \$400.00 from overhead funds earned from previous grants). Two sections of MAE 4326, which is a elementary education mathematics methods course, will be involved in this projects. One group will work with Apps and the other with physical manipulatives to learn about using cognitive levels of mathematics learning during the fall 2013 semester.
- **Ortiz, Enrique**, and Little, Mary (Fall 2009-present). Enhancing Pre-/In-service Mathematics Teacher RtI Data-Based Decision Making Skills Assessment using Adaptive-Simulated Scenarios. Undergraduate and graduate students will be invited to participate in a study involving Response to Intervention (RtI) data-based decision making skills assessment using adaptive-simulated scenarios. The participant will receive an account to enter the electronic simulations. Pre- and post-survey will be completed by the participants. Participants will complete web-based activities during their own time at home or school computers, no class time will be provided. The activities were designed to simulate decision-making procedures using various data sources. Avatars (digital characters) are used to simulate virtual reality.
- **Ortiz, Enrique** (Fall 2009- present). Optical Topography of Evoke Brain Activity During Mathematics Fluency and Reading Fluency Tasks. Pilot testing of Optical Topography System (\$350,000.00) from the Hitachi Medical Corporation, Japan. Hitachi Medical

Corporation provided access to the Optical Topography System at UCF, and no to UCF, including follow-up training from an expert from Japan.

- **Ortiz, Enrique** (Fall 2007-Summer 2011). Optical Topography of Evoke Brain Activity During Mental Arithmetic Tasks Involving Different Operations Basic Facts. Pilot testing of Optical Topography System (\$350,000.00) from the Hitachi Medical Corporation, Japan. Hitachi Medical Corporation provided access to the Optical Topography System at UCF, and no to UCF, including training from an expert from Japan.
- **Ortiz, Enrique** (2005-present). Assessing the elementary education pre-service teachers use of CRA levels in teaching mathematics.
- **Ortiz, Enrique** (2005-present). Assessing the development of teaching goals of middle school mathematics pre-service teachers. This research effort has resulted in presentations, and an article that is in preparation.
- **Ortiz, Enrique** (2003-2006). Roll out fractions game.

This game was pilot tested and researched with fourth graders at the Goldsboro Elementary School, Seminole Schools County, Sanford, Florida. Modifications were made to the game for use as a training tool in graduate and undergraduate mathematics methods courses, and in-service teacher workshops. Students and teachers have used this game to develop lesson plans and instructional procedures. This research effort has resulted in presentations, and an article published in the Teaching Children Mathematics (2006).

- **Ortiz, Enrique** (1999-2000). Fraction Squares Game.

This game was pilot tested and researched with several grade levels at schools in the Seminole Schools County, Florida. Modifications were made to the game for use as a training tool in graduate and undergraduate mathematics methods courses, and in-service teacher workshops. Students and teachers have used this game to develop lesson plans and instructional procedures. This research effort has resulted in presentations and an article published in Teaching Children Mathematics journal (2000).

- **Ortiz, Enrique, Hopkins, Martha, Hutchinson, Cyndee, Little, Mary, Verkler, Karen, Miller, Kevin, and Robinson, Mike.** Experiences from Holmes Partnership Site-coordinators (Spring, 2002- Summer, 2003).

Every site-coordinator will keep a journal of day-to-day experiences at the school. This is a qualitative research we are starting to do as a group. The Holmes Partnership is a network of universities, schools, community agencies and national professional organizations working in partnership to create high quality professional development and significant school renewal to improve teaching and learning for all children. As part of the university involvement at the schools, a site-coordinator spends at least one day a week at the school working with teachers and/or interns in different projects.

- **Ortiz, Enrique** (Fall, 1999, in progress). Pre-service elementary and secondary school teachers' knowledge of variables. MAE 5318, MAE 2801, and 4326, University of Central Florida.
- **Ortiz, Enrique** (Fall, 1999). Pre-service teachers' learning to use manipulatives to teach operations involving fractions and decimals. MAE 5318, and MAE 4326, University of Central Florida.
- **Ortiz, Enrique** (Fall, 1998). Pre-service teachers' learning to use manipulatives to teach whole number operations.

Pre-service elementary school teachers (n=70) will be assessed in their knowledge of the concept of variable. This project is a spin-off from the DSR In-House Research Grant Program: Development and validation of the knowledge of the concept of variable instrument. Once the instrument is developed it will be administered to these university students.

- **Ortiz, Enrique** (Fall, 1999, in progress). An exploratory study analyzing pre-service and in-service elementary schoolteachers' knowledge and use of different cognitive levels. MAE 5318, MAE 2801 and 4326, University of Central Florida.

Pre-service elementary school teachers (35 students each section) will be assessed in their knowledge and use of different cognitive levels. An assessment instrument is being developed for this purpose.

- **Ortiz, Enrique** (1992-1994). Geometry Game.

This game was tried out with first and second graders at the several schools, Volusia Schools County, Florida. Modifications were made to the game for use as a training tool in graduate and undergraduate mathematics methods courses, and in-service teacher workshops. Students and teachers have used this game to develop lesson plans and instructional procedures. An article was developed and publishes in a refereed journal.

- **Ortiz, Enrique** (Fall, 1992). Action Research: Students' portfolio including a class journal, an autobiography, a self-diagnostic/prescriptive report and the Youth Motivator Program. MAE 2801, University of Central Florida.

The objective of this study is to gather qualitative data on prospective elementary school teachers (n=36) mathematics development. Their reflections and comments on class activities are being analyzed and explored for learning pattern. The finding of this project are being used to write case studies, formalize research hypotheses for further investigation, and make course improvements.

- **Ortiz, Enrique** (Fall, 1992). Pilot project: Development and evaluation of learning centers involving mathematics concepts. MAE 4326, and MAE 5318, University of Central Florida.

The purpose of involving prospective teachers in learning centers and cooperative learning is two folded. First, it is an excellent way to motivate and teach mathematics at any level. Second, the students might be more inclined to try similar teaching strategies if they have learned mathematics through them. Three sections were involved in this project (36 students each). The students rotated from one center to another. Each of the six centers involved probability and statistics activities. The findings of this research have used to adapt and modify the activities.

- **Ortiz, Enrique** (Summer, 1992). Pilot Project: Alternative assessment methods used in a graduate level diagnostic/prescriptive mathematics course. MAE 6517, University of Central Florida.

The reactions, reflections and comments of nine elementary and two secondary school teachers were analyzed in order to find the effects of the alternative assessment procedures used in a graduate level diagnostic/prescriptive course on this students' learning. Students' profiles were developed and analyzed. Also, the instructor's reflections on the development and implementation of this project were analyzed. The finding of this activity were reported in the RCDPM 1993 Annual Conference, and article based on the findings is in preparation.

- **Ortiz, Enrique** (Spring, 1992). Pilot project: Integration of multicultural education, music, and mathematics (First Grade Students). MAE 4326, and MAE 5318 University of Central Florida.

Latin American songs involving mathematics were prepared, developed, and pilot tested in first grade classrooms. They are songs or rhythms the researcher learned as a child in Puerto Rico. The students were taught how to sing the songs. The songs were presented in Spanish with the proper translation in English. The main purposes of this project were to enrich students' knowledge of other cultures, and learn other ways to express mathematics. Improvements based on the pilot test have been made. The finding of this activity will be presented in the 1994 National Council of Teachers of Mathematics Annual Conference, and an article based on the findings is in preparation.

- **Ortiz, Enrique**, and Ratliff, J. (Fall, 1990-Fall 1992). Pilot Project: Students' portfolio (integrated diagnostic/prescriptive approach for mathematics, language arts and social studies as part of the junior year methods block for elementary school prospective teachers). MAE 4326, University of Central Florida.

This innovative approach to teaching the Junior Block (the science, math and social studies methods courses) has been used successfully with three different sections of students (n=36 for each section). Adaptations have been made accordingly. Eventually, we will team teach and integrate other activities within the block.

- Ratliff, J., and **Ortiz, Enrique** (Summer, 1992). Pilot project: Student teaching assignments during the Summer in a year-around school program. Timbercrest Elementary School, Deltona, Florida.

The purpose of this project was to explore the possibility of providing internship experiences during the summer term in a regular basis to senior year students. Twelve students were involved in this project. The experiences provided by this project have been used to improve the quality of summer internships.

- **Ortiz, Enrique** (Spring, 1992). Pilot project: Development and pilot testing of a geometry game for K-2 grade students.

This geometry game was pilot tested with first-grade students (n=25). It was developed in order to involve students in a motivational activity and at the same time learn mathematics concepts and skills. The efforts in this pilot project resulted in an article, which was submitted for publication in the Arithmetic Teacher.

- **Ortiz, Enrique** (Spring, 1992). Pilot project: The development and pilot testing of the calculator mat for elementary school students.

This calculator mat was developed and pilot tested with first- and second-grade students (n=40, 20 each grade). An article based on this project was submitted to the Dimensions in Mathematics.

- **Ortiz, Enrique** (Spring, 1989). The environmental robustness of a structured computer mathematics laboratory. Bonner Elementary School, Volusia County, Daytona Beach, Florida.

This project was carried out at Bonner Elementary School. A complete report of the findings related to this project was presented at the AERA Annual Conference (April, 1992).

- **Ortiz, Enrique** (Summer 1988, and Summer, 1989). Tutoring Program as part of the elementary school methods course: A diagnostic-prescriptive approach to mathematics teaching. University of New Orleans.

This program provided summer instruction in mathematics for five weeks to students in the community (30 students per Summer). Group of university students taught individual students, and developed case studies using diagnostic-prescriptive procedures learned in mathematics methods class. They were advised and supervised by the instructor.

Consultation/Collaboration Activities

- Advisory Board member for Discovery Research PreK-12 (DRK-12) NSF Grant (Submitted, Fall 2016). NSF grant “Digitizing and Personalizing the Testing Effect: Increasing Capacity, Diversity, and Efficacy via Remediation-Enhanced Collaborative Learning,” PI: Richard Hartshorne Co PIs: DeMara, Campbell, Bai, and Chen.
- Review Panel Member NSF Grant (Spring, 2016). Integrative Strategies for Understanding Neural and Cognitive Systems (NSF-NCS): INTEGRATIVE FOUNDATIONS and CORE+ SUPPLEMENTS. <http://www.nsf.gov/pubs/2016/nsf16508/nsf16508.pdf>
- Intervention Specialist Advisory Committee Member (Spring 2016). Project Bridges: Special Educator Preparation in Intensive Interventions. Advisory Committee Meeting, Thursday, March 3, 2016. UCF Teaching Academy, Room 130.
- Developed Checklist for Florida Standards (Fall 2015).
- Developed Module for Delta Teacher Efficacy Campaign (Fall 2015). I developed the module for students who struggle with mathematics.

The Delta Research and Educational Foundation (DREF), in collaboration with Delta Sigma Theta Sorority, Inc. (DST), is embarking upon a potentially highly impactful educational endeavor, which aims to enhance student academic achievement by focusing on improving teacher effectiveness. The Delta Teacher Efficacy Campaign emanates from the Foundation and the Sorority’s joint commitment to ensuring that all students are educated in a manner that prepares them to enter and excel in college, and, ultimately, create a thriving life and career for themselves. DREF has received a matching grant of \$450,000 from the Bill & Melinda Gates Foundation to support The Delta Teacher Efficacy Campaign which will focus on addressing the needs of the teachers.

The Delta Teacher Efficacy Campaign will support teachers serving students of color as it considers the key findings of the Measures of Effective Teaching research project conducted by the Gates Foundation. The DREF-DST collaborative will include a three-prong approach: training for teachers, conducting advocacy sessions for communities, and publishing scholarly research on teacher efficacy and student achievement in *PHILLIS: The Journal for Research on African American Women* published by DREF.

- Dieker, Lisa (PI) (Submitted, 2014). Innovative Special Education Leadership Preparation in Science, Technology, and Mathematics. This University of Central Florida’s (UCF) application is in response to CFDA 84.325D Type A, Preparation of Leadership Personnel Absolute Priority 1 of IDEA. Request is for funding to support a doctoral program designed to prepare special education leadership personnel (referred to as scholars) for university faculty positions or for service in school systems to impact the performance of students with disabilities in science, technology and mathematics (STM).
- Nutta, Joyce (PI) (June 21-August 2, 2013). Six-week English language certificate program for high school English teacher from Brazil. This is a US State Department grant that

provides ESOL and teacher training for 60 secondary English teachers from Brazil. We collaborated in the preparation and implementation of ESOL strategies. I was part of the academic team. English through teaching mathematics. Grant from the Institute of International Education.

- Consultation Committee for the development of STEM workshops and materials for Orange County, Osceola County, Seminole County, and Florida Virtual School (PIs: Drs. Rose Taylor and Joyce Nutta) (Summer, 2011-present).

Goal: To improve ELs' achievement in STEM disciplines

Objective 1: To develop and provide 60 hours of professional learning on teaching and assessing EL student learning in STEM disciplines for 220 STEM teachers

Objective 2: To develop and evaluate an EL-specific STEM instructional practices observation/reflection tool that identifies teacher behaviors that improve ELs' learning in STEM disciplines

Objective 3: To develop a UCF undergraduate minor, graduate certificate, and Ph. D. cognate in teaching STEM to ELs

Objective 4: To expand UCF's general teacher preparation ESOL infusion model and resources to the preparation of STEM teachers

The grant included a full-time project/research coordinator, two doctoral research assistants, and an advisory committee (which will meet once a semester) to represent research and best practices Math instruction.

- Consultation Committee for the development of the Intensive Mathematics curriculum: Orange County Public School System (OCPSS) personnel, Drs. Janet Andreasen, Enrique Ortiz, Mary Little and others (Fall, 2010-Spring 2011).
- Collaborator: Taylor, Rosemarye, Nutta, and Joyce (Co-Principal Investigators) (Spring 2010). Investing in Innovation Fund. Grant Application process for around \$5,000,000.
- Consultation Committee: Little, Mary, Stewart, Martha, and Martin, Suzanne (Co-Principal Investigators) (Spring, 2009-present). Building a Bridge to Support Highly Qualified Math & Science Middle School Teachers of Students with High Incidence Disabilities, Special Education Pre-service Training Improvement Project under the CFDA 84.325 T competition. ESE grant, "Special Education Preservice Training Improvement Grant" from office of Special Education programs. Total budget for 5 years is \$500,000.
- Partnership to Rejuvenate and Optimize Mathematics and Science Education in Florida (PROMISE) Review Team Facilitator. The main responsibility was to facilitate the review of the Professional Development Modules created by Design Teams to be delivered to classroom teachers across the State. Gainesville, FL (Summer, 2008). \$5,000.00
- Consultant for School District of Hillsborough County, Tampa, Florida. Kersaint, Gladis (University of South Florida), Ortiz, Enrique, and Adams, Thomasina (University of Florida, Gainesville) (Spring 2007 – Summer 2007). \$45,000.00
- Consultant for Tabula Digita. Lesson plans for Tabula's Mission Electronic Games. Development of lesson plans that cover Missions 1 – 20 (of the Single Player Pre-Algebra Tabula Digita product) to be adapted as introduction of the games (2006-2007).
- Consultant for the Project Central Algebraic Thinking Initiative (Fall, 2001-2008).
- Editor of Adult Secondary GED teachers' workshops and VPI Committee's task force. Orange County Public Schools (Fall, 2005).
- Consultant for the Polk County Mathematics and Science Summer Program (Fall and Summer, 2005). Polk County and UCF.
- Member of the Florida Teacher Certification Examination (FTCE) Specialization Section for Middle School Mathematics Education: Specification Validation Committee. Institute for

Instructional Research and Practice. Florida Department of Education. University of South Florida, Tampa, Florida (December 9 and 10, 2004). All graduate and undergraduate students who are applying for certification in the area of middle school mathematics will take this exam.

- Member (Specialist) of the Teacher Education (FTCE) Program Folio Review Team. Florida Department of Education ESOL Folio Review, University of South Florida, St. Petersburg, Florida (May 28-30, 2002).
- Member of the Florida Teacher Certification Examination General Knowledge Specification Validation Committee. Institute for Instructional Research and Practice. Florida Department of Education. University of South Florida, Tampa, Florida (November 7 and 8, 2001). All graduate and undergraduate students who are applying for certification in any of the areas of certification will take this exam.
- Consultant for the development of the Volusia County Public Schools Handbook for Placing University Interns in the Schools (Fall, 1993 - Spring, 1994).
- Consultant for the Aviation/Space Teacher Workshop Committee. Embry-Riddle University, Daytona Beach, Florida (Spring 1993 - Summer 1998).
- Consultant for the Aviation/Space Teacher Workshop Committee. Embry Riddle University, Daytona Beach, Florida (Fall 1989 - Summer 1990).
- Instructional Consultant for Red Bug Elementary School, Seminole County, Florida (1990).
- Instructional Consultant for Reedy Creek Elementary School, Osceola County, Florida (1990).
- Member of the Panel of Experts for the development of the Item Specification for the Florida Department of Education Calculator Project, The use of calculators to assess Mathematics achievement (1989-90).
- Research Consultant for the Aviation and Aerospace Education Center Program Development Proposal, Embry Riddle University, Daytona Beach, Florida (1989-90).
- Research Consultant for the University of New Orleans Metropolitan Council for Lifelong Learning. Educational and Training Survey (1988-89).
- Development of SAS-Main Frame Statistical Programs for Data Analysis (1990-94).
- Organized a Math Lecturer Symposium, and taught classes (EDCI 4744 and EDCI as part of the Chevron Project (Research Grant). University of New Orleans (1987-88).
- Outside Reviewer for the Elementary Mathematics Pilot Program. East Baton Rouge Parish Schools, Baton Rouge, Louisiana (May, 1986).

Professional Leadership Activities

- Reviewer for the NCTM Research Committee (October, 2016). National Council of Teachers of Mathematics Annual Research Conference (April, 2017).
- Reviewer for Teaching Children Mathematics Journal, National Council of Teachers of Mathematics (Fall 2013 – present).
- Co-Chair for the Conference Committee of the Association of Mathematics Teacher Educators (AMTE) Annual Conference. Orlando, Florida (February, 2015).
- Member of Editorial Team of the International Journal for Mathematics Teaching and Learning (2014- present). This is a joint initiative between the Centre for Innovation in Mathematics Teaching at Plymouth University, UK and the Mathematics Education Department at College of Nyiregyháza, Hungary. This journal is indexed in both [ERIC](#) and [EBSCO](#).
- Reviewer for Mathematics Teacher Educator Journal, Association of Mathematics Teacher Educators and National Council of Teachers of Mathematics (Fall 2013 – present).

- Referee and reviewer for the Journal for Research in Mathematics Education, National Council of Teachers of Mathematics (Fall, 20014-present). Reviewed one research article summer 2014.
 - TODOS Conference Committee: Reviewer of 2015 NCTM Annual Meeting TODOS: Equity Strand Sessions (2014-present).
 - Board Member at Large of the Florida Association of Mathematics Teacher Educators (Fall 2013 – present).
 - 2014 Research NCTM Conference Reviewer (August, 2013).
 - TODOS Conference Committee: Reviewer of 2014 NCTM Annual Meeting TODOS: Equity Strand Sessions (April, 2013).
 - Reviewer of NCSM's draft position on RTI Interventions (September, 2012).
 - Co-Chair for the Conference Committee of the Association of Mathematics Teacher Educators (AMTE) Annual Conference. Orlando, Florida (February, 2013).
 - Referee and reviewer for the Editorial Panel of the ON-Math Journal, National Council of Teachers of Mathematics (Fall, 2007-Fall, 2009).
 - Invited Reviewer of the following paper: *Improving Student Achievement in Mathematics by Addressing Response to Intervention (RTI): Interventions*. This paper is part of a series of position papers developed by the National Council of Supervisors of Mathematics (NCSM) to provide research-based practices for school and district mathematics education leaders. The idea was to provide feedback to help make NCSM's position and leader actions strong and relevant.
 - Member of the Orange County Council of Teacher of Mathematics Teacher of the Year Selection Committee (Spring, 2007, Spring 2008, Spring 2009, Spring 2010 and Spring 2011, Spring 2012).
 - Volunteer for the Conference Committee of the Association of Mathematics Teacher Educators (AMTE) Annual Conference. Orlando, Florida (February 5-7, 2009)
 - Volunteer for the Conference Committee of the TODOS: Mathematics for ALL Annual Conference. Salt Lake City, Utah (April, 2014, April, 2013, April, 2012, April, 2011, April, 2010, April, 2009, April, 2008).
 - Nominated and elected for Vice-president for College of the Florida Council of Teachers of Mathematics (FCTM) Board and FCTM Executive Board (Fall, 2006-Fall, 2008).
 - Reviewer for and co-founder of the Transformations, a Journal of FAMTE, (Fall 2015, present).
 - Reviewer for Investigations in Mathematics Learning Journal, RCML (Fall 2015, present).
 - Reviewer for Mathematics Teacher Educator Journal, AMTE (Spring, 2014-present).
 - Referee and reviewer for the Editorial Panel of the Journal for Research in Mathematics Education, National Council of Teachers of Mathematics (Spring, 2013-present).
 - Referee and reviewer for the Editorial Panel of the Teaching Children Mathematics Journal, National Council of Teachers of Mathematics (Fall, 1999-present).
- Articles review:
- Engaging Students In Functional Thinking (August 22, 2012).
 - Plugging into the MATRIX (April 2, 2010).
 - Referee and reviewer for the Editorial Panel of the Middle School Mathematics Journal, National Council of Teachers of Mathematics (Fall, 2004-present).
 - Member of Review Board of The Journal of College Teaching & Learning (Spring 2005-present).
 - Reviewer of TODOS: Mathematics for ALL: Bibliography of Diversity and Equity in Mathematics Education, Second Edition, Spring 2007.

- Co-Conference Chair of the Association of Mathematics Teacher Educators (AMTE) Annual Conference. Tampa, Florida (January, 2006).
- Development and management of a Web-site for the Florida Association of Mathematics Teacher Educators (FAMTE), (Fall, 2002-Fall 2006): <http://www.famte.org>
- Great Expectations in Mathematics and Science (GEMS) UCF/Polk County Summer Camp (Fall 2004-Summer 2005). Boone Middle School, Winter Haven, Polk County. Consultant and mentor.
- Organize the Florida Association of Mathematics Teacher Educators (FAMTE) spring 2005 meeting (February, 2005), UCF Teaching Academy building, TA 130.
- Member of Review Team for the Governor's Summer Program. Applications were reviewed and selected for the summer 2005 programs to be recommended for funding.
- Organize the Florida Association of Mathematics Teacher Educators (FAMTE) spring 2004 meeting (February 21, 2004), UCF Teaching Academy building, TA 130.
- Organize the Florida Association of Mathematics Teacher Educators (FAMTE) spring 2003 meeting (February 21, 2003), UCF Teaching Academy building, TA 130.
- Communication Director of the Florida Association of Mathematics Teacher Educators Board (Spring, 2004 – Fall, 2005).
- Design logo for the Florida Association of Mathematics Teacher Educators (FAMTE) (Fall, 2002).
- Co-organizer of the Florida Association of Mathematics Teacher Educators meeting, February 21, 2004, UCF Teaching and Learning Academy, Orlando, Florida.
- Nominated to serve as the secretary of the Research Council of Teachers of Mathematics (Fall, 2002).
- Invited reviewer (Fall, 2002). "Games Book." National Council of Teacher of Mathematics.
- Reviewer for McGraw-Hill Higher Education (A Division of the McGraw Hill Companies) (Fall, 2001): Darken, Betty. Fundamentals of Elementary Mathematics.
- Reviewer for Merrill Education/Prentice Hall (October, 1999): Cathcart, Pothier, Vance, and Bezuk, Nadine. Learning Mathematics in the Elementary and Middle Schools.
- Member of the NCTM Annual Conference Publication Committee. Orlando, Florida (4-7 April, 2001).
- Professional Development School Site-Coordinator at Goldsboro Elementary School. UCF/Orlando Science Center Holmes Partnership (Fall, 2000-present).
- Co-Program Chair of the Research Council of Teacher of Diagnostic-Prescriptive Mathematics. Melbourne, Florida (February, 1996).
- Co-Conference Chair of the Research Council of Diagnostic/Prescriptive Mathematics Annual Conference. Melbourne, Florida (February, 1996).
- Member of the School Improvement Committee, Volusia County, Florida. Elected as a member of the Conference Committee of the Research Council of Diagnostic-Prescriptive Mathematics (Summer, 1992-Summer 1996).
- Conference proposal reviewer for the American Educational Research Association (2002-present): SIG's: Mathematics Education, Technology, and Learning Environments.
- Field Reader for the Evaluation of Grant Application for the Program to Encourage Minority Students to Become Teachers. U.S. Department of Education (Spring, 1993-to Judge in the Annual Spanish Conference of Florida (April, 1993).
- Member of the UCF/Daytona Speakers' Bureau. Organized the visit of an exchange visiting professor from Venezuela. Dr. Hermes Bravo-Brito (August, 1993-August, 1994). Organizer and Judge of the Metric Estimation Component of the Louisiana Science Olympiad (April, 1989).

- Presider at the Florida Council of Teachers of Mathematics Annual Conference, St. Petersburg Beach, Florida (August, 1991). Presider at the Louisiana Association of Teachers of Mathematics Annual Conference, Monroe, Louisiana (November, 1990). Problem solving comes alive through cooperative learning and manipulative. Presider at the Florida Council of Teachers of Mathematics Annual Conference, St. Petersburg (1990, October). Using IBM Courseware in Precollege Classes.
- Presider at the Louisiana Association of Computer Using Educators Fall Conference. Using multimate advantage (October, 1988).
- Volunteer for the Membership Committee. National Council of Teachers of Mathematics Annual Conference, New Orleans, Louisiana (April, 1991).
- Volunteer in Public Schools at the Holly Hill Elementary School, Volusia County, Florida (1990-91).
- Volunteer in Public Schools at the Bonner Elementary School, Volusia County, Florida (1989-90).
- Volunteer for the National Educational Computing Conference, Orlando, Florida (June, 1993).
- Volunteer for the Research Council of Diagnostic and Prescriptive Mathematics Annual Conference Organizing Committee, Melbourne, Florida (February, 1993).
- Youth Motivator Program Organizer, Volusia County Public Schools (Fall, 1992).

TEACHING

Graduate Courses:

- ESE 6935 – Introduction Seminar in Secondary Education.** University of Central Florida. Spring 2017, Spring 2013, Fall 2012. This is a mixed mode course, which is offered using online activities and face-to-face approaches.
- ESE 6936 – Capstone Seminar in Secondary Education.** University of Central Florida. Fall Spring 2017, Spring 2013, 2012. This is a mixed mode course, which is offered using online activities and face-to-face approaches.
- IDS 6939 – Curriculum Reform in Mathematics and Science.** University of Central Florida. Fall 2017, Fall 2012, Fall 2011, Fall 2010, Fall 2009, Fall 2008, Fall 2007, Fall 2006.
- IDS 6934 – Using Technology in Mathematics and Science.** University of Central Florida. It was taught every summer semester as a mixed-mode course for the Lockheed Martin/UCF Academy/Endowment and other students. Summer 2011, Summer 2010, Summer 2009, Summer 2008, Summer 2007, Summer 2006. This is a mixed mode course, which is offered using online activities and face-to-face approaches.
- MAE 5318 – Current Methods in Elementary School Mathematics.** This course is part of the program of study for the Master of Arts in Elementary Education and Master of Arts in Exceptional Education.
- MAE 5327 – Teaching Middle School Mathematics.** It was taught for the first time as part of a new Master of Arts in Middle School Mathematics. Most of the students enrolled in this program are supported by the Transition in Mathematics and Science Teaching (T-MAST) program, which is part of the Lockheed Martin/UCF Academy/Endowment. This course will be taught every summer as part of this initiative. Summer 2012, Summer 2011, Summer 2010, Summer 2009, Summer 2008, Summer 2007, Summer 2006, Summer 2005.
- MAE 6641 – Problem Solving and Critical Thinking Skills.** University of Central Florida. I teach this course every spring semester for the Lockheed Martin/UCF Academy/Endowment and other students. Spring 2012, Spring 2011, Spring 2009, Spring 2008, Spring 2007, Spring 2006.
- MAE 6517 – Diagnosis/Remediation of Difficulties in Mathematics for the Classroom Teacher.** University of Central Florida. It has been taught two times. I teach a section of this course every two years. Fall 2011, Fall 2009, Fall 2007, Fall 2005.
- MAE 6337 – Teaching Algebra in the Secondary Schools.** University of Central Florida. Developed by the Instructor.
- MAE 6656 – Design Instructional Computing.** University of Central Florida.
- SSE 6616 – Mathematics/Science Curriculum and Instruction.** University of Central Florida.
- EDE 6933 – Elementary Education Seminar I.** University of Central Florida.
- EDE 6935 – Elementary Education Seminar II.** University of Central Florida.
- EDCI 6240 – Readings on the Teaching of Secondary School Mathematics.** University of New Orleans. Developed by the Instructor.

Undergraduate Courses

- EDF 2085 - Introduction to Diversity for Educators.** University of Central Florida. Summer 2016, Summer 2015.
- MAE 4326 – How Children Learn Mathematics.** University of Central Florida. Fall 2009, Spring 2009, Fall 2008, Spring 2008, Spring 2007, Fall 2006, Spring 2006.
- MAE 4634 – Programs in Teaching of Mathematics.** University of Central Florida. Summer 2012.

MAE 2801 – Instruction of Mathematics in the Elementary School. University of Central Florida. I taught this course fifteen times at the Orlando, Brevard, and Daytona Beach Campuses.

EDF 4282 – Application of Technology in Education. University of Central Florida.

EDCI 3126 or 3140 - Materials and Methods in Elementary School Mathematics. Louisiana State University or University of New Orleans respectively. It was taught ten times.

EDCI 3240 – Materials and Methods in Secondary School Mathematics. University of New Orleans. It was taught two times.

EDCI 4744 – Introduction to Computer in the Content Areas. University of New Orleans.

EDCI 4993 – Problem Solving in School Mathematics. University of New Orleans. Developed by the Instructor. Summer, 1988.

EDCI 4993 – Teaching Mathematics in Middle/Junior High Schools. University of New Orleans. Developed by the Instructor.

Graduate Independent Studies:

IDS 6979 – Thesis Research. University of Central Florida. This course is part of the K-8 Master of Education program Lockheed/UCF Academy. Fall 2004-present.

MAE 7945 – Internship in Mathematics Education. University of Central Florida. A Ph. D. student carried an internship under my guidance. We co-taught MAE 4634 during summer 2012 (Cheryl Avila, 3 s.h., Summer 2012).

MAE 7980 – Dissertation. University of Central Florida.

MAE 5318 – Current Methods in Elementary School Mathematics. University of Central Florida. (3 graduate students)

MAE 6608 – Independent Study. Precious Cristwell, 3 s.h., Fall 2008; Tara Martina, 1 s.h., Spring 2008, Fall 2011.

MAE 6909 – Independent Study. One student Fall 2007 (Brendali Melgoza, 6 s.h.), 1 students Spring 2008 (Brendali Melgoza, 1 s.h.).

MAE 6517 – Diagnosis Remediation of Difficulties in Mathematics for the Classroom Teacher. University of Central Florida. (1 graduate student).

MAE 6908 – Development of a Diagnostic/Prescriptive Case Study. University of Central Florida. Spring, 1997 (1 graduate student).

MAE 6909 – Research Report as part of Master Degree. University of Central, Florida. Fall 1998 (1 graduate student).

EDCI 6980 – Analysis of Research in Curriculum and Instruction: Mathematics Education. University of New Orleans. (1 graduate student). Developed by the Instructor.

Advising of Students:

Undergraduate and graduate students have been advised during office hours or by appointment. I was the Graduate Coordinator for elementary education and mathematics education graduate programs. Since 2005, I have been the coordinator of the MAT Teacher Education - Middle School Mathematics Education Track program and the Transition to Mathematics and Science Teaching (T-MAST). I was the interim program coordinator of the K-8 Master of Education, Lockheed/UCF Teaching Academy (Fall 2007 - Spring 2008).

Directed Graduate Studies:

The following student has been directed in graduate research reports:

- Skidmore, Cheryl A. (co-directed, Fall, 1998-Fall, 2006)
- Subramanian, Lalitha (co-directed, Fall 2003-Summer 2005)

- Madden, Jeanann. (1997). University of Central Florida.
- Chavez-Mesa, Raquel. (1988). University of New Orleans.

Chair of Doctoral Student Committees:

- Tapp, Laura (Fall 2014- Summer 2016). Ph.D. Mathematics Education.
- Gall, Rebecca (Fall 2014-Spring 2016). Ph.D. Mathematics Education.
- Avila, Cheryl (Fall 2011-Summer 2013). Ph.D. Mathematics Education. Calculus instructors' assumptions of their students' prior knowledge of functions: A multiple-case study.
- Maisonave, Leyzia (Fall, 2008-2010). Ed.D. Curriculum and Instruction in Secondary Mathematics Education. She left the program during summer 2010.
- Price, Beverly (Fall, 2008-Spring 2009). Ed.D. Curriculum and Instruction in Secondary Mathematics Education. She completed her comprehensive exam under my advising, and completed her dissertation with another academic advisor.
- Cristwell, Precious (Fall, 2008-Spring 2009). Ph.D. Mathematics Education. She is now in the Ed.D. program with another academic advisor.

Co-Chair of Doctoral Student Dissertation Committees:

- Subramanian, Lalitha (Fall 2003-Summer 2005). Using dynamic software to teach proof in mathematics. Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida. Co-Chairs: Drs. Enrique Ortiz and Mike Hynes.
- Skidmore, Cheryl A. (Fall, 1998-Fall, 2004). The effect of the math concepts and skills computer program on standardized test scores at Holy Hill Middle School. Ed.D. in Secondary Mathematics Education. University of Central Florida. Co-Chairs: Drs. Enrique Ortiz and Stephen Sivo.

Doctoral Student Committee Member:

- Eisenreich, Heidi (Fall 2014-Fall 2015). Chair: Juli Dixon. Ph.D. in Mathematics Education. Dissertation and comprehensive exam committees.
- Knotte, Edwards (Fall 2014-present). Chair: Erhan S. Haciomeroglu. Ph.D. in Mathematics Education. Dissertation and comprehensive exam committees.
- Campbell, Karemah (Spring 2015-present). Chair: Carolyn Walker-Hopp. Ed.D. in Mathematics Education. Dissertation committee member.
- Glenn-White, Vernita (Fall 2014-Summer 2015). Chair: Juli Dixon. Ph.D. in Mathematics Education. Dissertation and comprehensive exam committees.
- Edwards, Debbie (Fall 2014-Summer 2015). Chair: Carolyn Walker-Hopp. Ed.D. in Mathematics Education. Dissertation and comprehensive exam committees. An Examination of Pre-Service Teachers' Procedural and Conceptual Knowledge of Teaching Fractions.
- Sahin, Nesrin (Fall 2014-Spring 2015). Chair: Juli Dixon. Ph.D. in Mathematics Education. Dissertation and comprehensive exam committees.
- Brooks, Lisa (Summer, 2012-Summer, 2014). Ed.D. in Mathematics Education.
- Sotilo, Mercedes (Fall, 2012-Spring, 2014). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Bawatneh, Zyad (Spring, 2012-Fall, 2012). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Safi, Farshid (Summer, 2008-Spring, 2009). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.

- Tobias, Jennifer (Fall, 2006-Spring 2009). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Roy, George (Fall, 2005-Fall, 2008). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Kinney, Marcey A. (Fall, 2007-Summer, 2008). Ph.D. in Exceptional Education.
- Robertson, Shelby (Fall, 2007-Summer, 2008). Ph.D. in Exceptional Education.
- Debbie Wheeldon (Fall, 2006-Summer, 2008). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Andreasen, Janet (Fall, 2004-Fall, 2005). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Lowry, Kim (Fall, 2003-Fall 2005). Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Moch, Peggy L. (Spring, 2002). Using technology with high school algebra students to enhance attitudes and academic performance. Ph.D. in Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Large, Ronald B. (Spring, 2002). An analysis of the effects of instructional and motivational strategies on the mathematics levels of fifth grade students at selected low-performing public elementary schools. Ed.D. Curriculum and Instruction in Mathematics Education. University of Central Florida.
- Williams, Carole E. (Spring, 2002). An analysis of Long's reactive behavior patterns relative to the success of students in a community college algebra course. Ed.D. in Community College Mathematics Education. University of Central Florida.
- Wilkinson, Mary E. (Summer, 2001). Foundations of attitudes toward mathematics learning and teaching held y preprofessional elementary school teachers. Ph.D. in Secondary Mathematics Education. Lockheed/UCF Academy. University of Central Florida.
- Schmidt, Diane L. (Fall, 2001). The effects of instructional approaches for teaching computational skills on student achievement as measured by the Florida Comprehensive Achievement Test (FCAT). Ed.D. in Curriculum and Instruction. University of Central Florida.
- Junkins, Nicole R. (Summer, 2000). A study of the impact of long reactive behavior patterns on grade nine placement and achievement in mathematics. Ed.D. Curriculum and Instruction in Educational Leadership. University of Central Florida.
- Lee, Mayke L. (Spring, 2000). A study of academic characteristics of successful and unsuccessful community college statistics students. Ed.D. Curriculum and Instruction in Community College Education.
- Junkins, Nicolene R. (Fall 1999-Fall 2000). Does a student interactive behavior patterns affect placement in grade nine mathematics courses? Ed.D. Curriculum and Instruction. University of Central Florida.
- Childs, Gloria (Spring, 1992). Integrating the NCTM Curriculum Standards for school mathematics and calculus reform recommendations into an applied calculus course. Ed.D. Curriculum and Instruction. University of Central Florida.
- Houpy, Raymond L. (1988). The relationship between a measure of effective teacher behavior and certain supervisor and teacher-evaluator characteristics. Ph.D. University of New Orleans.
- Raviotta, Charles Francis (August, 1988). A study of the relationship between knowledge of individual learning style and its effect on academic achievement and study orientation in high school mathematics students. Ph.D. University of New Orleans.
- Schmitt, Dorren R. (May, 1984). The development and validation of the instrument for software evaluation for educators (ISER). Ph.D. University of New Orleans.

Chair Master's Thesis Committee:

- Klingler, Kelly L. (Summer, 2011-Spring, 2012). Mathematics strategies for effectively teaching problem solving: The influence of teaching mathematical problem solving strategies on students' attitudes in middle school. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Twar, Brian J. (Fall, 2010-Spring, 2011). The effect of using Interactive Student Notebook on the understanding of the concepts and algorithms of addition and subtraction of fractions and mixed numbers for fifth grade mathematics students. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Goss, Patricia (Spring, 2008-Spring, 2009). How does my practice of using graphic organizers during instruction affect students' ability to summarize and comprehend significant earth science content? Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. University of Central Florida. She was awarded the 2009 Outstanding Master's Thesis Award by the UCF College of Education.
- Tyrell, Jean (Spring, 2007-present). A study of my teaching development using inquiry teaching methods. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. University of Central Florida.
- Guyton, Pamela (Spring, 2007-Spring, 2008). How Verbal and Written Explanations Impact Low Achieving Students in their Comprehension of the Connections between Decimals and Fractions. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. University of Central Florida.
- Roicki, Joseph (Spring, 2007-Spring, 2008). Effects of Discussion and Writing on Student Understanding of Whole Number Concepts and Operations. Master of Education in K-8 Mathematics and Science Mathematics and Science Education. Lockheed/UCF Academy. University of Central Florida.
- Rose, Anna K. (Spring, 2004-Summer, 2005). The nature of students; misconceptions and whether discourse and writing are effective methods for correcting students' misconceptions. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. University of Central Florida.
- Culbert, Kelly (Spring, 2004-Spring, 2005). Writing as a constructivist approach to problem solving. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. University of Central Florida.
- Hess, Janice S. (Spring, 2003-Spring, 2004). Effects of creating meaning in mathematics through real-world activities on fourth-grade students' mathematical performance. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. University of Central Florida.
- Sindone, Nicole (Fall, 2002-Spring, 2003). What is the Connection between Gender Preference in Genre, and Gender of the Protagonist of Books They Read and Reading Performance. Master of Education in Elementary Education. University of Central Florida.

Master's Thesis Committee Member at UCF:

I have been part of several thesis committees every year (2002-present) for the Lockheed/Martin Academy students and other programs.

- Dorr, Mariella (Fall 2012 to present). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. Dr. Bobby Everett, Chair.
- Newby, Tara L. (Fall, 2012). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. Dr. Bobby Jeanpierre, Chair. The implementation of engineering design challenges on 4th grade students' attitudes towards engineering, classroom climate, and writing ability.

- Franco, Veronica (Fall, 2011). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. Dr. Lisa Dieker, Chair.
- Jablonski, Heather (Fall, 2011). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. Dr. Janet Andreasen, Chair.
- Friske, Monica (Fall, 2011). Affects of using context supportive of the area model on sixth grade students' performance writing word problems for fraction multiplication. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy. Dr. Juli Dixon, Chair.
- Wallace, Bill (Spring, 2009). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Maguhn, Jessica (Spring, 2009). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Scott, Alicia (Summer, 2008). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Hoke, Darlene (Summer, 2008). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Clayton, Angela (Spring, 2007-Summer, 2008). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Ashley, Samuel (Spring, 2007-Spring, 2008). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Ross, Caryn (Spring, 2007-Spring, 2008). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Wittcop, Melissa (Spring, 2007-Spring, 2008). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Jones, Rebecca (Spring, 2007-Spring, 2008). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Nardelli, Marino (Spring, 2006-Spring, 2007). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Hensley, Elizabeth (Spring, 2006-Spring, 2007). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Hosack, Lindsey (Spring, 2005-Spring, 2006). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Estrada, Elsy (Spring, 2005-Spring, 2006). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Campbell, Meghan (Spring, 2005-Spring, 2006). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Egendoerfer, Lisa (Spring, 2005-Spring, 2006). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Allen, Colleen (Spring, 2004-Spring, 2005). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Hull, Lynette (Spring, 2004-Spring, 2005). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Lang, Annie (Spring, 2004-Spring, 2005). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Lopez, Lourdes (Spring, 2004-Spring, 2005). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Lindsey, Tracy (Spring, 2003-Spring, 2004). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.

- Weaver, Karen (Spring, 2004-Spring, 2005). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Somwaru, Paramdai (Spring, 2003-Spring, 2004). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Vila, Ana (Spring, 2003-Spring, 2004). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Apple, Sarah (Spring 2002-Spring 2003). Master of Education in K-8 Education. Lockheed/UCF Academy.
- Stickle, Jennifer (Spring, 2002-Spring, 2003). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Courie, Lisa (Spring, 2002-Spring, 2003). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Gibson, Annette (Spring, 2002-Spring, 2003). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Snow, Christine (Spring, 2002-Spring, 2003). Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Roy, George (Spring, 2001-Spring, 2002). Thematic teaching in an inner city school and its effects on 8th grade algebra students' attitudes and performance in mathematics. Master of Education in Mathematics Education. Lockheed/UCF Academy.
- Rivera, Debbie Ann (Spring, 2001-Summer, 2002). A Dash of Technology: A Study of the Integration of Technology into a Second Grade Science-Based Curriculum. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.
- Bemiller, Sarah Jane (Spring, 2001-Summer, 2002). The Effects of Teacher Collaboration and Flexible Age Grouping on Kindergarten Students' Mathematics Performance and Attitudes. Master of Education in K-8 Mathematics and Science Education. Lockheed/UCF Academy.

Honor in the Majors Thesis Committee Chair (Bachelor's Degree):

- Cole, Kristen (Fall 2013, withdraw from program after one semester). Informational fluency. Honors in the Major (HIM) Program in Education, College of Education and Human Performance.

Honor in the Majors Thesis Committee Member (Bachelor's Degree):

- Quintero, Andrea (Spring 2016-Fall 2016). Chair: Gina Gresham.
- Murray, Matthew (Spring 2014-Spring 2015). What is implicit about category learning? Honors in the Major Program in Psychology, Psychology Department. Chair: Corey Bohil. This was a study involving the use of fNIRS.
- Duany, John (Spring, 2013-Summer, 2013). Predicting cognitive workload with measures of blood oxygenation in the prefrontal cortex and heart rate. Honors in the Major Program in Psychology, Psychology Department. Chair: Corey Bohil.
- Yader, Rayna (Spring, 2006). E-merging technology for the emerging classroom. B.S. in Elementary Education. Honors in the Major Program in Elementary Education. University of Central Florida.
- Blair, Katherine J. (Spring, 2004). The role of contemporary artist and mathematics in the art classroom. B.S. in Art Education. Honors in the Major Program in Art Education. University of Central Florida.
- Daytona Beach Campus (Spring, 1999-Spring, 2000). University of Central Florida.

Advising Students in Article Publications

- Latimer, Lana (Spring 2015). A city of angels. *Dimensions in Mathematics*, 35 (1), 5-8 (peer-reviewed process). He was in the graduated from the MAT Secondary Education Mathematics track. He wrote this article as part of the MAE 6641 Problem Solving Course.
- Barrett, Mark (In press, Spring 2014). Quarters, dimes, and mystery coins. *Dimensions in Mathematics*, 29 (2), 33-35 (peer-reviewed process). He is in the graduated from the MAT Secondary Education Mathematics track. He wrote this article as part of the MAE 6641 Problem Solving Course (Fall 2014).
- Rooke, Sonya B. (Fall 2011). Can our students buy a car? *Dimensions in Mathematics*, 31 (2), 17-20. She graduated from the M.Ed. in Secondary Mathematics. She wrote this article as part of the MAE 6641 Problem Solving Course.
- Hardy, Cathy (Fall 2011). Making Connections in Factoring Quadrilaterals *Dimensions in Mathematics*, 31 (2), 13-16. She graduated from the M.Ed. in Secondary Mathematics. She wrote this article as part of the MAE 6641 Problem Solving Course.
- Ferguson, Lauren (Spring 2010). Perfecting Perimeters *Dimensions in Mathematics*, 30 (1), 4-6. She graduated from the MAT Middle School Mathematics track.
- Williams, Deborah (Fall 2009). Making Fractions Fun. *Dimensions in Mathematics*, 29 (2), 33-35 (peer-reviewed process). She graduated from the MAT Middle School Mathematics track. She wrote this article as part of the MAE 6641 Problem Solving Course.

University Coordinator for Internship I, Internship II, Graduate Internship, and Graduate On-the-job Internship:

Student teachers have been supervised as part of supervision assignments, including elementary, middle and high school levels (1989-present). Voluntarily supervised graduate students in the Transition to Mathematics and Science Teaching (T-MAST) On-the-job Internship (Fall, 2002-Spring, 2003).

Supervised three graduate on-the-job internship students: Fall, 2007, and Spring, 2008.

- Luisa Padilla, Master of Education in Middle School Mathematics, T-MAST program, Ocoee High School, Ocoee, FL
- Mercedes Sotillo-Jorge, Master of Education in Middle School Mathematics, T-MAST program, Ocoee High School, Ocoee Middle School, Ocoee, FL
- Jennifer Carmichael, Master of Education in Middle School Mathematics, T-MAST program, Ocoee High School, Timber Crest High School, Orlando, FL

Special Course Development:

- Developed a Math Clinic for MAE 4326 (Spring, 2017). The Math Clinic provided a way for pre-service teachers (PSTs) in this course to work with elementary school children (one Kindergarten and one first grader). The clinic lasted eight weeks at the Teaching Academy. I revised the Case Study report to provide the opportunity to implement the prescribed interventions based on the diagnostic phase of the report. The PSTs could accomplish this task during their Internship I or Math Clinic. The intervention implementation was counted in lieu of one of the lesson plan reports.
- Developed course websites for ESE 6935, ESE 6936, MAE 4634, MAE 6641, MAE 6649, MAE 6517, MAE 4326 (Fall 2012-present).
- Develop IDS 6934 course (Summer 2006-Summer 2011), which is a mixed-mode course for the K-8 Lockheed/UCF Academy, and include a WebCT component.

- Develop MAE 4326, MAE 2801, MAE 5327 and MAE 5318 activities (Summer, 2004-present). These activities include the development of instructional games.
- Integration of technology in EDE 6933 and EDE 6935 (Fall, 1989-Fall, 2008). This includes the use of WebCT and UCF Library database and online resources. These course are taught now in a mixed format (face-to-face and online).
- Integration of LiveText (electronic system) into the Master of Arts program (Fall, 2003-present).
- Integration of ESOL strategies into the methods courses (MAE 4326, MAE 5318, and MAE 5327 and the Graduate and Undergraduate Elementary Education Programs) (Fall 1999-present).
- Integration of technology into the different courses (EDE 6933, EDE 6935, MAE 4326, MAE 5318 and MAE 5327) (Fall 1999-present).
- Develop and maintain Web-sites and Web CT sites for MAE 5318, EDE 6933, and EDE 6935 (Fall, 2000-2007).
- Develop and maintain Web-site for the Master's Programs in Elementary Education (<http://reach.ucf.edu/~elemed2>): Master of Education and Master of Arts in Elementary Education programs (Fall, 2000-2008).
- Develop and maintain Website for the UCF Florida Teacher Certification Exam (FTCE) (<http://reah.ucf.edu/~ftce>) (Fall 2000-2008). This website is used by both graduate and undergraduate students.
- Math Manipulatives Laboratory. In an effort to provide better access to the materials used in class, a mathematics manipulatives laboratory was organized for the Daytona Beach Campus. Different manipulatives and other instructional materials (including calculators, journals, and children's books) have been made available to the students. When possible, a graduate assistant is in charge of the laboratory (Fall, 1989-Fall 1999).
- **Ortiz, Enrique**, and Everett, R. (Spring, 1993). The TechnoZoo. SCE 6616, University of Central Florida. TechnoZoo was used as a culminating activity. This activity was initially developed by the Miami Museum of Science under a grant from the State of Florida Department of Education as part of the Elementary InTech Workshop, and adapted by the instructors for the SCE 6616 students. The instructor received technical assistance from Dr. Donna Baumbach and Mrs. Mary Bird and used the new state of the art facilities of the Department of Education. During this activity the participant demonstrated mastery of the various technologies introduced in previous activities by designing a zoo for specific animals. Using CD-ROM, Level I and III videodiscs, as well as simulation and database technology, four member teams searched for information needed to design and construct their zoos. At the end of the activity, each team presented their TechnoZoo design to the whole group.
- **Ortiz, Enrique** (Fall, 1992). Pilot testing and development of multicultural education and the teaching of mathematics activities. MAE 4326 and MAE 5318, University of Central Florida. Multicultural Education Grant, Dr. Margaret Miller, Director, included the development and pilot testing of modules for the integration of multicultural concerns in the methods and other courses in the Department of Education. One of the modules was developed for the mathematics methods course (MAE 4326). The instructors involved in this project also formed a reviewing committee. We met at least once a month for the interchanging of ideas. These modules will be used as a model for the integration of multicultural education in different courses within the Education College.
- **Ortiz, Enrique** (Fall, 1992-present). Integration of multicultural education, music, and mathematics. MAE 4326 and MAE 5318, University of Central Florida. Several Latin American songs involving mathematics have been presented to the university students. They are songs or rhythms the researcher learned as a child in Puerto Rico. The students were taught how to sing the songs. The songs were presented in Spanish with the proper

translation in English. The main purposes of this project were to enrich students' knowledge of other cultures, and learn other ways to express and teach mathematics.

- **Ortiz, Enrique** (Fall, 1992-present). Manipulative Oral Exams. MAE 4326 and MAE 5318, University of Central Florida. In an effort to incorporate the instructional procedures used in this course and the ones expected to be used by the students in the classrooms, two oral exams have been developed as an assessment tool. Each student and the instructor role-play the questioning techniques explored in class. The instructor has found that the traditional paper-and-pencil approach used before does not provide for proper assessment. This approach is more authentic and motivates the students to have a better understanding of the process involved when using manipulatives to teach mathematics.
- **Ortiz, Enrique** (Fall, 1992). Action Research: Student Portfolio including a class journal, an autobiography, a self-diagnostic/prescriptive report and the Youth Motivator Program have been integrated into the MAE 2801, University of Central Florida. Learning-to-learn was the underlining and unifying theme for these activities. The class journal provided day-to-day reflections and reactions to the learning process and part of the necessary communication between the students and the instructor. The autobiography provided for a better understanding of the students' goals as persons and as future teachers, and continues the development of their teaching/learning philosophy. The self-diagnostic/prescriptive report provided the student with the opportunity to discover weaknesses and strengths in mathematics and develop activities that motivate him/her to improve in needed areas. The Youth Motivator program provided for a smoother transition to the classroom. The students were more aware of the realities of the classroom before the junior student teaching experiences and shared their findings with others in an oral presentation. The instructor served as a facilitator to the students. Frequent reviews of the students' progress were provided.
- **Ortiz, Enrique** (Fall, 1992). Arranged a visit for a presentation on aviation by Mrs. Patricia Ryan and a field trip to the Aviation Simulation Center at Embry-Riddle Aeronautical University. MAE 4326, University of Central Florida. In an effort to improve the partnership between the Embry-Riddle Aeronautical University and the University of Central Florida at Daytona Beach, familiarize students with the materials available in this area, and motivate students into incorporating aviation topics within their teaching, Patricia Ryan, director of the Aviation Learning Center of the Embry-Riddle Aeronautical University at Daytona Beach, Florida, presented some ideas to the students on how to use aeronautics as a theme in the elementary schools. Also, the class went to the Learning Resource Center and the Aviation Simulation Laboratory (as a field trip). Students selected and integrated any of the ideas presented into their lesson plans.
- **Ortiz, Enrique** (Fall, 1992). Arranged for field trip to Sea World Open House. MAE 2801 and 4326, University of Central Florida. The students (70) had the opportunity to visit Sea World and learn about new partnership programs for mathematics and science and received curriculum materials for classroom use. The students used some of these materials as part of their lesson plans.
- **Ortiz, Enrique** (Fall, 1992). Arranged for Mrs. Trishia Maskers to visit class to talk about her own classroom experiences involving cooperative learning. MAE 4326, University of Central Florida. Mrs. Maskers is a very innovative, inspiring, and successful third-grade elementary school teacher at Timbercrest Elementary School, Deltona, Florida. She has been using cooperative learning in her regular teaching and training of other teachers in this area for several years.
- **Ortiz, Enrique** (Summer, 1992). Pilot Project: Alternative assessment methods used in a graduate level diagnostic/prescriptive mathematics course. MAE 6517, University of Central Florida. Twelve students had the opportunity to experience alternative assessment as part of

the instructional practices used in this course. The students and the instructor kept a class journal with reflections and comments. Interviews and frequent reviews were provided during the semester. The findings of this project were presented at the 1993 RCDPM Conference. An article is preparation based on these findings.

- **Ortiz, Enrique**, Ratliff, J., and Hoffman, P. (Fall, 1990-Fall, 1993). Pilot Project: Students' Portfolio (integrated diagnostic/prescriptive approach and journal for mathematics, language arts and social studies as part of the junior year methods block for elementary school prospective teachers). MAE 4326, University of Central Florida. This project was an on-going effort to provide for an integrated approach to teaching elementary school mathematics, language arts and social studies. The efforts within this task had been made semester-by-semester as a team effort. This also provided for the reduction of repetition in terms of the three course activities. The three instructors assessed the same portfolio and the students received credit for it in three courses.
- **Ortiz, Enrique** (Fall, 1991 and 1992). Pilot Project: Probability and Statistics Learning Centers and Cooperative Learning. MAE 3117 or 2801, University of Central Florida. Based on the premise that prospective teachers will be more willing to try the instructional procedures they experience as students in their regular teaching, learning centers and cooperative learning were incorporated in this course. Similar activities are being developed for other mathematics topics.

PROFESSIONAL AND UNIVERSITY SERVICE

University of Central Florida:

University Service:

- Presenter a course at the ADAGE (Academic Discoveries and Adventures for Gifted Enrichment (ADAGE), Project ELEVATE Summer Program (Summer, 2017). UCF in collaboration with SCPS offered enrichment courses during the summer for Gifted SCPS students sponsored by Project ELEVATE. I presented Tangram activities, Triangle Puzzle (original puzzle), and ring puzzles to SCPS gifted students, rising grades 3 to 5 (15 total). June 5-8, UCF campus. This exciting summer program aims to bring gifted students on to UCF CAMPUS for enrichment courses. Students will choose from 6 morning and/or afternoon sessions June 5 and 6 (M; T) to include options such as Robotics, Simulations and Global Learning, Publishing online books, Foreign Language Fun, Ethnic crafts and Anthropology, Philosophy for Kids, Anatomy and Health. June 7 and 8 (W; TR) they will explore the natural environment through the Arboretum and adventures in Science. Week 2 will be at Partin Elementary where students will choose from 6 different morning and/or afternoon sessions (3 hours each day) on interdisciplinary themes that focus on challenging creative and critical thinking, problem-solving, and productivity, presented by dynamic teachers of the gifted.

Title: Math Adventures and Games:

In this course we will explore geometry and play and develop games using visual images such as the Tangram, Triangle and Ring Puzzles and Activities. The Tangram Puzzle is a Chinese puzzle involving 7 pieces. Similarly, the Triangle Puzzle is an original puzzle based on 14 triangular pieces. Using the puzzle pieces, the task is to solve puzzles involving different shapes or patterns, and complete other mathematics learning activities. You can also create your own activities using these puzzle pieces. We will also take a look at some challenging Ring Puzzles that require visualization skills.

- Member of UCF Hispanic Serving Institution (HSI) Task Force (Spring 2017-present). The Task Force will address the main opportunities related to HSI status and our currently high level of Latino enrollment.
- Reviewer for the UCF Summer Undergraduate Research Fellowship (SURF) applications (Spring 2017). Reviewed 17 applications to SURF.
- Member of Research Intensive Course Designation Development Subcommittee, Kevin Jardaneh, Chair. (Spring 2017-present). As part of the UCF Office of Undergraduate Research Council, the committee was charge with the development of definitions, protocols, timeline, and general content of an undergraduate research course.
- Reviewer for UCF Undergraduate Research Journal Library Award (Spring 2017). Reviewed three research articles that were published in 2016 in the UCF Undergraduate Research Journal for this award.
- UCF Faculty Cluster Initiative (FCI) Pre-proposal: Multidisciplinary Neuroscience Alliance (MDNA): Translational Neuroscience (Spring 2015-present). **Cluster leader:** Kiminobu Sugaya. **Participating units:** College of Arts and Humanities, College of Business Administration, College of Education and Human Performance, College of Engineering and Computer Sciences, College of Health and Public Affairs, College of Medicine, College of Sciences, United Technologies Research Center, Institute of Simulation & Training. I am one of the participating UCF Faculty, representing the CEDHP.

- UCF Faculty Cluster Initiative (FCI): CEDHP proposal for a FCI hire seeking positions in the areas of (a) learning sciences and (b) computational knowledge (Fall 2016). I will be one of the participating faculty members.
- Undergraduate Research Council (Fall 2014-present; Fall, 2007–Fall 2009).
- STEM Day 2015: Festival Expo (November 6, 2015, 1:30 pm). Tangram Challenge. Presented one mathematics-learning activities for elementary level students. The Center for Initiatives in STEM (iSTEM) and the Astronaut Scholarship Foundation invited K-12 grade classes to come and explore the exciting fields of science, technology, engineering, and mathematics (STEM) through demonstrations, activities, speakers, and exhibits designed and led by UCF faculty and students.
- Member of UCF Neuroscience Research and Training Alliance (Spring 2015 – present).
- Served as a Reviewer for the selection of recipient of the Summer 2015 Undergraduate Research Fellowships as part of the Undergraduate Research Council Sub-committee.
- STEM Day 2015: Festival Expo (January 30, 2015). Tangram Challenge. Presented two mathematics-learning activities for elementary level students. One Ph.D. student and eight undergraduate students collaborated in the preparation and presentation of the activities.
- Judge for the 2015 Graduate Research Forum: Eighth Annual Showcase of Diverse Student Research, March, 31, 2015, 12:00 p.m. – 2:00 p.m., UCF Student Union, Orlando, Florida.
- Committee member representing STLL in *iSTEM Fellows Program* committee (fall 2014-present).
- Judge for the 2011 Graduate Research Forum: Eighth Annual Showcase of Diverse Student Research, March, 29, 2011, 1:00 p.m. – 4:00 p.m., UCF Student Union, Orlando, Florida.
- Organized Near Infra Red Spectroscopy & Optical Topography Lecture, by Dr. Joerg Schnackenberg, Hitachi Medical Corporation, Japan, October 27, 2009, 9:00 a.m. to 11:00 a.m. UCF Teaching Academy, Room 117.
- Roundtable Paper Presentation at the SoTL Day Faculty Showcase (Spring 2010).
- Poster Presentation at the SoTL Day Faculty Showcase (Spring 2009; Spring, 2008; Spring 2007; Spring, 2006).
- ENLACE (ENgaging LATino Communities for Education) Florida Advising Board Member (Fall, 2005-present).
The mission of ENLACE FLORIDA is to build a statewide network to improve college readiness, access, and success in higher education for Latino students and other under represented groups. With funding from the Kellogg Foundation, ENLACE FLORIDA (2005). The school districts in promote policy change and sustainability in support of Florida's strategic educational objectives.
The network, composed of universities, community colleges, school districts, community organizations, students, and families, will work with and inform the deliberations of state legislators, the Florida Board of Education, the Florida Board of Governors, University Boards of Trustees, and school districts to develop and advocate for policies that will ensure that all Latino high school graduates are prepared to enter and succeed in higher education. USF, UCF, FAU, and FIU will take the lead in forming regional clusters of educational partners. These four universities accounted for 75 percent of Hispanic enrollment in the entire SUS system Miami Dade, Broward, Valencia, Hillsborough, and Palm Beach enrolled 80 percent of all Hispanic students in the state community college system in 2004. South and central Florida contributed 90 percent of total Latino membership in Florida's K-12 system. By pooling the resources of these universities, community colleges, school districts, and various community organizations, the ENLACE FLORIDA network will develop the institutional capability required to support ongoing state efforts to transform best practices into policies to improve college readiness, access, and success.
- Reviewer for the UCF Undergraduate Research Journal (Summer 2005-present).

- Pew Higher Educational Roundtable Program. A forum for exploring ideas related to the UCF's strategic planning. It involved around 25 people, including the President and Provost (January 27-28 and March 17-18, 1997).
- Minority Scholarship Committee (1996-97).
- College of Education Dean's Search Committee. Chair: Dr. Husemann, Dean College of Business Administration (Fall, 1992-Summer 1993).
- Faculty Senate: Undergraduate Course Review Committee (Summer, 1993 – Summer, 1998).

College of Education and Human Performance Service:

- Attended the Central Florida Urban Education Summit PK-20: The Community and a Commitment organized by the UCF CEDHP. April 20, 2016, 10:00 am, MIRC. Keynote Speaker - David J. Johns, Teachers College, Columbia University
- Serve as member of CEDHP Masters Programs Council. The Council comprises of the Masters track coordinators (i.e., MS, MEd, MAT, etc.), and any other invited college stakeholders in the College throughout the college. The CEDHP Masters Council (“Council”) facilitates communication across programs and coordinates recommendations for all curricula issues as they relate to the operations of the doctoral programs of the College. In addition, the Council also provides recommendations and insight into recruitment, retention and completion issues as they relate to the operations of the doctoral programs by the College. The Council comprises of the Masters track coordinators (i.e., MS, MEd, MAT, etc.), and any other invited college stakeholders in the College throughout the college.
- Attended Diversity Breakfast, 2016 Diversity Week, UCF Office of Diversity and Inclusion. October 17, 2016, 8:00 am – 10:00 am. Pegasus Grand Ballroom, Empowering Diverse Voices in Our Democracy, Speaker: Ray Suarez.
- CEDHP Associate Dean for Academic Affairs Search Committee (Spring 2016-Summer 2016).
- Attended the CEDHP Town Hall Four with Dean Carroll: What We Value – Research on Monday, November 9, 2015, from 12:15 – 1:45 p.m. in TA 130.
- Attended the CEDHP Town Hall One with Dean Carroll on Monday, September 24, 2015, from 3:00 pm – 4:30 p.m. in TA 130.
- Attended Diversity Breakfast, 2015 Diversity Week, UCF Office of Diversity and Inclusion. October 12, 2015, 8:00 am – 10:00 am. Pegasus Grand Ballroom, Speaker: Sonia Manzano.
- Attended the Town Hall Forum on August. The CEDHP supported our colleague, Dr. Martha Lue Stewart, by partnering with the Delta Teacher Efficacy Campaign to host the Central Florida Town Hall Forum on August 26 from 6:30 pm – 8:00 pm in the MIRC. There was a distinguished panel of community leaders that includes Dr. Barbara Jenkins, Superintendent of OCPS, and other representatives from education, government, and the community. Also, Dean Carroll will bring greetings from the CEDHP. This is an excellent opportunity for our students and colleagues to see high-level political engagement and for our voices to be heard regarding education for youth at risk of graduating from our local high schools. Please support this partnership by attending and encourage UCF students to attend also.
- Attended the [LIFT Orlando Learning Session - The Art of Transformation](#). Varsity Club and the Orlando Citrus Bowl. **October 21, 2015, 7:30 am – 9:00 am**. LIFT Orlando is a non-profit organization committed to breaking the cycle of poverty through neighborhood revitalization” and it meets monthly.
- Attended the Central Florida Town Hall Forum. Sponsored by Central Florida Chapter of Delta Sigma Theta Sorority, and UCF College of Education and Human Performance. August 26, 2015, 6:00 p.m. to 8:00 p.m. The purpose was to hear perspectives on how we can

collectively enhance educational outcomes to increase graduation rates of at-risk students in urban and underserved communities.

- Served as a member of dissertation panel (June 9, 2015). IDS 7502: Case Studies in Education Research, Instructor: Dr. Glenn Lambie. TA 222.
The focus of the panel discussion was on different expectations for dissertation proposals and any recommendations panelists had to support the Ph.D. in Education students' through the dissertation process. Students enrolled in this course are completing their coursework in the program and will be entering dissertation hours in the fall or shortly after.
- Attended UCF Commencement Ceremonies, representing CEDHP, May, 2016; May 8, 2015.
- Served as a Judge for the CEDHP Undergraduate Research Showcase, Poster Presentations, March 18, 2015. Teaching Academy Lobby, University of Central Florida.
- Served as a Judge for the CEDHP Graduate Research Showcase, Poster Presentations, March 1, 2015. Teaching Academy Lobby, University of Central Florida.
- ORC In-House competition – CEDHP research proposal reviewer before submitting to ORC (Spring, 2014).
- Member of CEDHP CCSS Planning Team (Summer, 2013-present)
- Co-chair of UCF/Lockheed Martin Academy Enhancement Grant (Summer, 2013- present). Bobby Jeanpierre and **Enrique Ortiz**. Selection of recipients and organization of presentation of awardees' presentations at MIRC.
- Judge of the UCF/Lockheed Martin Academy Enhancement Grant Selection Committee (February, 2013). Lisa Dieker, **Enrique Ortiz**, and Malcom Butler. 10 grants of \$1,000 each were selected.
- College of Education Research Committee Member (Summer 2013-Summer 2015).
- College of Education Council Member (Summer 2012-Spring 2013).
- College of Education Faculty Council Chairperson (Summer 2012-Spring 2013).
- College of Education Faculty Council Member (representing the School of Teaching, Learning and Leadership School). (Summer 2011-Spring 2013; Summer, 2005-Fall 2009, and Summer, 2002 – Summer, 2004).
- Coyle Competitive Fund Advisory and Selection Committees (Fall 2010, and Spring 2011).
- Member of the UCF Research Incentive Award RIA Award Selection Committee (Spring 2010-Spring 2011).
- Member of the UCF Research Incentive Award (RIA) Award Selection Committee (Spring 2009-Fall 2010).
- Response to Intervention (RtI) Special Interest Group (SIG) (Fall, 2009-present), Dr. Mary Little, coordinator.
- Sabbatical Selection Committee (Fall 2011, Fall 2010).
- STEM Special Interest Group (SIG) (Fall, 2011-present), Dr. Lisa Deiker, coordinator.
- RIA Selection Committee (Fall, 2009; Spring, 2009; Fall 2010-Spring 2011).
- Institutional Effectiveness Reports
 - Master of Arts in Teaching (MAT) Middle School Mathematics track, with Dr. Janet Andreasen (Fall 2010)
 - Master of Arts (MA) in Middle School Mathematics Program (Fall 2009, Fall 2008, Fall 2007, Spring 2006)
 - K-8 Master of Education (M.Ed.) in Mathematics and Science Education (Fall 2007)
 - Master of Arts (MA) in Elementary Education Program (2001-Spring 2006)
 - Master of Education (M.Ed.) in Elementary Education Program (2001-Spring 2006)
- Evaluator of Promotion and Tenure Portfolios (Fall 2010, Fall 2009, Fall 2008).
- Poster Presentation at the UCF College of Education Second Annual Research Poster Symposium (April 22, 2009).

- Undergraduate Curriculum and Standards Committee (Fall, 2006 – Summer, 2008). The major task during fall 2006 was to help with meeting the FDOE new program rules, including meeting the 120 credit hours rule, revision of courses and programs, revision of newly created courses. We met once every week for over three hours each during the fall 2006 semester.
- Represent UCF College of Education Faculty in the Project Central Advisory Board (Fall, 2005-Spring 2009).
- Represent the Faculty Council in College Council meetings (at least 2 per year) (Fall, 2005-Fall, 2009).
- College of Education Principal Investigator Meetings (at least 2 per semester, 2006-present).
- Clinical Experiences Advisory Board (Fall, 2004-Fall 2008). This committee organizes the field-experiences and related activities for graduate and undergraduate programs.
- K-8 Master of Education in Mathematics and Science Education Self-Study (Fall, 2007).
- College of Education Graduate Enrollment Retreat (October 19, 2007).
- NCATE related reports for the Master of Arts in Middle School Mathematics (Fall, 2004-Spring, 2007).
- Performance Assessment Committee (Spring, 2003 – Spring, 2006). This committee will decide the directions of National Council for Accreditation of Teacher Education (NCATE) in the next few years. NCATE is the professional accrediting organization for schools, colleges and departments of education in the United States, including graduate and undergraduate programs.
 - Bachelor of Science in Elementary Education Program (2001-Spring 2004)
- NCATE Professional Standards Task Force (Spring, 2003-Spring, 2006). This committee organizes the field-experiences and related activities for graduate and undergraduate programs.
- Organization of Action Research Interest Faculty Group (Summer, 2004 – Fall, 2005). **Ortiz, Enrique,** and Little, Mary. This includes graduate and undergraduate initiatives.
- Professional Portfolio Committee (Spring, 2003 – Fall, 2004). This committee was involved in the selection of the electronic system to be used as part of the graduate and undergraduate students portfolio system.
- Proctor Master's Comprehensive Exam (Summer, 2004). Teaching Academy (TA 117).
- College of Education Conceptual Framework (Spring, 2003 – Fall, 2004). I helped design the model (I developed the graphical representation) for this Conceptual Framework that is being used by graduate and undergraduate programs.
- Teaching and Learning Principles Department Chair Search Selection Committee (Fall, 2002.)
- UCF Faculty Sponsor of UCF/Orlando Science Center Holmes Partnership Mini Grants (Fall 2001-Spring 2001):
 - Gundal, Karen. SouthEastern Consortium for Minorities in Engineering.
 - Bush, Gene. Geological Search for Water on Mars/Mars Odyssey 2001.
- Faculty Mentor for the ESOL infusion in the areas of Math and Science (Fall 1999-to present).
- UCF/Orlando Science Center Holmes Partnership Advisory Committee (Fall, 2000-2003).
- UCF/Orlando Science Center Web-site Development Committee (Fall 2000).
- Professional Development School Site-Coordinator Committee. UCF/Orlando Science Center Holmes Partnership (Fall, 2000-present).
- Chair, TIP Award Selection Committee (1998-99).
- TIP Award Selection Committee (1996-97).
- College of Education Technology Committee (1998-Summer 2008).

- Strategic Planning Writing Team: Technology Section (1997-98).
- Daytona Beach Faculty Committee (1989-1999).
- Department Teacher Education Committee (Fall, 1992).
- Department Undergraduate Courses and Curriculum Committee (Fall, 2001-Spring, 2003).
- Revised Master of Education in Elementary Education program of study as part of a Recruitment and Retention grant. Bookmarks and brochures were developed and duplicated for recruitment purposes.
- Diversity and Multicultural Issues Newsletter Committee Newsletter Article: **Ortiz, Enrique**. (Fall, 1993). The "Vevo Vevo" Game.
- Endowed Chair for Mathematics Education Committee. Faculty Committee for the LM/UCF Academy for the Teaching of Science and Mathematics Research Grant. Michael Hynes, Director.
- Junior Year Block Faculty Committee (Daytona Beach).
- Master's Comprehensive Exam Committee (Summer 1991-present).
- Minority Mentors Committee. Multicultural Issues Group.
- Presenter at the College of Education Brown-Bag Seminars: Miller, Margaret, **Ortiz, Enrique**, and others. (February 27, 1992.) Multicultural Education Report.
- Holt, Larry, Everett, Robert; and **Ortiz, Enrique**. (April, 1992.) InTech Training Results.
- Proctor Doctoral Examination (Summer, 1991).
- Task Force for Multicultural Issues. Volusia County Teacher Education Center Council University Representative.
- Value Added International Programs Committee Member.
- Value Added Student Recruitment Leadership Team.

School of Teaching, Learning, and Leadership:

- Member of Elementary Education Council (Fall 2016-present).
- Member of Elementary Education Faculty Committee (Fall 2016-present).
- Member of the Communication/Visibility Committee, ad hoc committee of the Elementary Education Committee (Fall 2016-present).
- Program Coordinator of the MAT: Teacher Education - Middle School Mathematics Education Track (Fall, 2005-present)
- T-MAST Coordinating Advising and Recruiting Committee, Lockheed/UCF Academy for Mathematics and Science Education (2004-present).
- Review Committee for UCF CED School of Teaching, Learning and Leadership Annual Faculty Evaluation Standards and Procedures
- Member of the Secondary and Middle School Education Faculty Committee (Fall 2006-Summer 2016)
- Member of the Elementary Education Faculty Committee (1989-2011).
- Member Elementary Education Advisory Committee (Fall 2008-present).
- Member of Ph.D. and Ed.D. in mathematics education faculty committee (Fall 2008-present).
- Student Issues Committee (Fall 2007-Fall 2009).
- Member of the Ph.D. in Mathematics Education Selection Committee (Spring 2009).
- Evaluator of Comprehensive Exam for Elementary Education, Spring 2009, Fall 2008, Spring 2008, Fall 2007.
- Evaluator of Ed.D. Comprehensive Exam for Beverly C. Price, Spring 2009; Tara Martina, Spring 2008.
- Chair of the Promotion and Tenure Committee for 2007.

- Interim Academic Advising Coordinator of K-8 Master of Education in Mathematics and Science Education (Fall 2007-Spring 2008).
- Academic Advising Coordinator for Undergraduate and Graduate Middle School Mathematics Programs (Fall, 2005-present).
- M.Ed. K-8 Mathematics and Science Coordinating Committee, Lockheed/UCF Academy for Mathematics and Science Education (2000-present).
- Academic Advisor for T-MAST program (Fall, 2005-present).
- Middle School Mathematics Master's Comprehensive Exam Committee (Fall, 2005-present).
- Member of TLP Undergraduate Curriculum Committee (Fall 2006-Summer 2008).
- Academic Advising Co-coordinator for Undergraduate and Graduate Elementary Education Programs (Fall, 2000-Summer 2005, and Summer 2006).
- Transition in Mathematics and Science Teaching Comprehensive Exam: Master of Arts in Middle School Mathematics Education: Portfolio Defense. Member of the Evaluation Committee (Summer, 2004, and Summer, 2005).
- Elementary Education Florida Teacher Certification Exam (FTCE) Preparation Class (Fall, 2002-Spring, 2004). This preparation class was available to graduate and undergraduate students preparing to take the Elementary Education FTCE.
- Elementary Education Master's Comprehensive Exam Committee (1996-2008).
- Department of Instructional Programs Curriculum Committee (Fall, 1991 to Summer, 1993). Chairperson (Fall, 1992 - Spring, 1993).
- Math/Science Research Group. Member of a committee revising MAE 2801 at the Community College (Summer, 1991 - Fall, 1991).
- Member of the Elementary Education/Middle School Forum (1989-2006).
- Member of the Elementary Forum Pilot Program (Fall, 1991).
- Member of the Secondary Education Forum (Fall, 1992-Fall 2006), Secretary.
- Recruitment and Retention Committee (Fall, 2001-Spring, 2006.)
- Evaluator of Professional Portfolios: Undergraduate and Graduate Programs (Fall 1997-present.)

Faculty Search Committees:

- STLL Assistant, Elementary Education (Fall 2014-Spring 2015)
- STLL Instructor or Lecturer, Elementary Education/ESOL (Spring 2014)
- STLL Visiting Professor, Mathematics Education (Fall 2012)
- STLL Visiting Instructor, Secondary, Mathematics Education (Spring 2012)
- STLL Associate Professor or Professor, Educational Leadership & Ed.D. Program Coordinator (Spring 2011)
- STLL Faculty Administrator Search Committee (Fall 2011)
- Assistant/Associate Secondary Education Mathematics Faculty Search Committee (Spring, 2009; Fall, 2008-Spring, 2007; Spring, 2006-Fall, 2007).
- Visiting Faculty Administrator (Assistant to the Chair) Search Committee (Fall 2005-Spring 2006). Department of Teaching and Learning Principles.
- Visiting Assistant Professor, Secondary Mathematics Faculty Search Committee (Fall 2005-Spring 2006).
- College of Education Clinical Supervision Coordinator Search Committee (Spring, 2004).
- Assistant/Associate Secondary Education Mathematics Faculty Search Committee (Fall, 2003-Spring, 2004),
- Assistant/Associate Elementary Education Mathematics Faculty Search Committee (Fall, 2002-Spring, 2003).

- Associate/Full Secondary Education Mathematics Faculty Search Committee (Fall, 2002-Spring, 2003).
- Two Clinical Supervision Instructor Lines at the Orlando Campus (Fall, 2002).
- Instructional Programs Chair, Orlando Campus (Spring, 1997-Spring, 1999).
- Assistant Professor in ESOL at the Orlando Campus (Spring, 1999).
- Assistant Professor in Elementary School Reading/Language Arts at the UCF Daytona Beach Campus (Spring, 1996).
- Assistant Professor in Elementary School Reading/Language Arts at the UCF Daytona Beach Campus (Spring, 1993).
- Assistant Professor in Secondary School Science (Spring, 1992).
- Assistant Professor in Elementary School Mathematics (Orlando Campus) (Fall, 1991).
- Assistant Professor in Elementary School Mathematics (one at the Brevard Campus and one at Orlando Campus) (Summer, 1991).

University of New Orleans Committees:

- Comprehensive Exam Committee. Curriculum and Instruction Courses and Curriculum Committee, Secretary.
- Doctoral Screening Committee. Grade Appeals Committee.
- Graduate Faculty Committee.
- NCATE Committee.

Membership in Professional Organizations:

- American Educational Research Association: Divisions (AERA):
 - C: Instruction and Learning.
 - G: Social Context of Education.
 - K: Teaching and Teacher Education.
 - SIG: Research on Mathematics Education.
 - SIG: Study of Learning Environments.
 - SIG: Microcomputers Applications in Education.
- Association of Mathematics Teacher Educators (AMTE).
- Association for Supervision and Curriculum Development.
- Council for Technology in Math Education (CLIME) (an affiliate of NCTM since 1988)
- Florida Association for Computers in Education (FACE).
- Florida Association of Mathematics Teacher Educators (FAMTE).
- Florida Council of Teachers of Mathematics (FCTM).
- International Society of for Technology in Education (ISTE).
- International Mind, Brain, and Education Society (IMBES).
- The Mathematical Association of America (MAA).
- National Council of Teachers of Mathematics (NCTM).
- Research Council on Mathematics Learning (RCML).
- TODOS: Mathematics for All

Inservice Workshops:

- **Ortiz, Enrique** (January, 2005). Learning levels in mathematics teaching and learning. Project Central, UCF, Orlando, Florida.

- **Ortiz, Enrique** (January 6, 2003). Teaching algebraic concepts using manipulatives and games. Invited to present an in-service workshop at the Seminole County Pre-planning Mini-Conference, Sanford, Florida.
- **Ortiz, Enrique** (June 18-June 19, 2002). Using manipulatives and ESOL strategies in math education. Project Central Algebraic Thinking Summer Institute. Daytona Beach, Florida.
- **Ortiz, Enrique** (August 2, 2002). Teaching fraction concepts using manipulatives and games. Invited to present an in-service workshop at the Orange County Pre-planning Mini-Conference, Dr. Phillips High School, Orlando, Florida.
- **Ortiz, Enrique** (February, 2002). Mean, median and mode in the elementary classroom: Games and ideas for the Classroom. Invited to present an in-service workshop at the Goldsboro Elementary School, Sanford, Florida.
- **Ortiz, Enrique** (June 25-June 25, 2001). Using manipulatives and ESOL strategies in math education. Project Central Math Summer Institute. Clearwater, Florida.
- **Ortiz, Enrique** (June, 2001). Teaching fraction concepts using manipulatives and games. Invited presenter at the Annual Meeting of the Volusia Council of Teachers of Mathematics. Daytona Beach, Florida.
- **Ortiz, Enrique** (June, 1998). Aviation Math Workshops as part of the Ticket to the Sky: Teacher Workshop. A collaborative program for the enhancement of mathematics and science education for Embry-Riddle Aeronautical University Summer Research Grant. Daytona Beach, Florida.
- **Ortiz, Enrique** (July, 1996). Aviation Math Workshops as part of the Ticket to the Sky: Teacher Workshops. Session I (Advanced), Session II (Foundations). A collaborative program for the enhancement of mathematics and science education for Embry-Riddle Aeronautical University Summer Research Grant. Daytona Beach, Florida.
- **Ortiz, Enrique** (July, 1995). Aviation Math Workshops as part of the Ticket to the Sky: Teacher Workshops. Session I (Advanced), Session II (Foundations). A collaborative program for the enhancement of mathematics and science education for Embry-Riddle Aeronautical University Summer Research Grant. Daytona Beach, Florida.
- **Ortiz, Enrique** (July, 1994). Aviation Math. An in-service workshop for Embry-Riddle Aeronautical University Summer Research Grant. Daytona Beach, Florida.
- **Ortiz, Enrique** (August, 1993). Mathematics applications in aerospace. An in-service workshop for Embry-Riddle Aeronautical University Summer Research Grant. Daytona Beach, Florida.
- Allen, K., Hutchinson, C., Johnson, J., **Ortiz, Enrique**, and Robinson, M. (March, 1993). Global perspectives. A multicultural in-service workshop for Dr. Phillips High Schoolteachers. (This was the in-service component of the Multicultural Education Research Grant.) Osceola County, Florida.
- **Ortiz, Enrique** (August, 1990). The NCTM standards and the mathematics curriculum. An in-service workshop for the Ocala County School Board, Ocala, Florida.
- **Ortiz, Enrique** (July, 1990). Problem solving in mathematics and aviation/aerospace. An in-service workshop for Embry-Riddle Aeronautical University Summer Research Grant. Daytona Beach, Florida.
- **Ortiz, Enrique** (March, 1990). Math manipulatives (K-5). An in-service workshop for the Reedy Creek Elementary School, Osceola County, Florida.
- **Ortiz, Enrique** (February, 1990). An in-service workshop for the Red Bug Elementary School, Seminole County, Florida.
- **Ortiz, Enrique** (June, 1989). Introducing algebraic concepts to sixth through ninth-grade students. An in-service workshop (three days long) for the St. Charles Parish School System, Luling, Louisiana.

- **Ortiz, Enrique** (October, 1988). Use of manipulatives in the problem solving process, grades 2-4. An in-service workshop for the St. Charles Parish School System, Luling, Louisiana.
- **Ortiz, Enrique** (August, 1988). Motivational/hands-on approaches for teaching mathematics to at-risk students. An in-service workshop for the St. Charles Parish School System, Luling, Louisiana.
- **Ortiz, Enrique** (June, 1982). The effects of the open classrooms on students' mathematics achievement. An in-service workshop for the Project Follow Through Conference, San Juan, Puerto Rico. (Spanish).
- **Ortiz, Enrique** (September, 1980). Using manipulative to teach elementary school mathematics. An in-service workshop for teachers in San Juan II School District, Puerto Rico. (Spanish).
- **Ortiz, Enrique** (March, 1980). Educational materials for teaching elementary school mathematics. An in-service workshop for teachers in Rio Piedras IV School District, Puerto Rico. (Spanish).
- **Ortiz, Enrique** (February, 1980). Use of calculators to teach secondary school mathematics. An in-service workshop for teachers in Rio Piedras IV School District, Puerto Rico. (Spanish).
- **Ortiz, Enrique** (February, 1980). Educational materials for teaching secondary school mathematics. An in-service workshop for teachers in the Rio Piedras. (Spanish).

Recent Participation as a Trainee or Participant:

- Attended sessions at the **2017 Summer Faculty Development Conference** (Summer, 2017). High-Impact Practices for Integrative Learning. UCF Classroom Building I, May 8-11, 2017. High-impact academic practices allow students to integrate and apply their learning to complex problems and projects that are important to themselves and society. They include student-centered practices in courses, capstone courses and projects, developmental portfolios, faculty-supervised research, service-learning, community-based learning, internships, cross-cultural experiences, study abroad, and field work. Many of the conference sessions addressed this theme.
- **Open Course: University of California, San Diego:** (April, 2017). *Mindshift: Break Through Obstacles to Learning and Discover Your Hidden Potential*. This course was divided into 4 sessions (one-week each). **Taught by:** Drs. Barbara Oakley, (Ramón y Cajal Distinguished Scholar of Global Digital Learning, McMaster University, Professor of Engineering, Industrial & Systems Engineering, Oakland University), and Terrence Sejnowski (Francis Crick Professor at the Salk Institute for Biological Studies /react-text Computational Neurobiology Laboratory).
This course provided more in depth view of the topics discussed in the Learning How to Learn course.
- **Open Course: University of California, San Diego:** (March, 2017). *Learning How to Learn: Powerful mental tools to help you master tough subjects*. This course was divided into 4 sessions (one-week each). **Taught by:** Drs. Barbara Oakley, (Ramón y Cajal Distinguished Scholar of Global Digital Learning, McMaster University, Professor of Engineering, Industrial & Systems Engineering, Oakland University), and Terrence Sejnowski (Francis Crick Professor at the Salk Institute for Biological Studies /react-text Computational Neurobiology Laboratory).
This course provided access to the invaluable learning techniques used by experts in art, music, literature, math, science, sports, and many other disciplines. I learned about the how the brain uses two very different learning modes and how it encapsulates (“chunks”) information. It also presented ideas of illusions of learning, memory techniques, dealing with

procrastination, and best practices shown by research to be most effective in helping you master tough subjects.

- Attended the **2016 Fall Research Series**. The Office of Research is hosted the “Utilizing Extant Data from Public Sources for Research” workshop, presented by Dr. Jerry Johnson, Wednesday, November 16, 2016 in ED 305 from 1:00 pm – 2:00 pm.
- Attended the **Quick Start with Qualtrics: Designing Educational Surveys**. The Quick Start with Qualtrics: Designing Educational Surveys is a practical training for faculty, staff, and doctoral students conducted by Dr. Matthew Munyon, Assessment, Analytics, and Application Director and Dr. Shiva Jahani, Statistical Research Coordinator. The training sessions are Monday, Oct. 31 from 9:30 a.m.-12:45 p.m. in the Teaching Academy, Room 305 and Thursday, Nov. 10 from 1-4:15 p.m. in the Teaching Academy, Room 305.
- Attended workshop Integrating Computer Science in the Classroom - 2016 Workshop Series: Workshop II: **Teaching Mathematics through Robotics**,^[L]_[SEP] November 10, 2016; Workshop III **Teaching Science through Robotics**,^[L]_[SEP] November 29, 2016 by Dr. Megan Nickels, Morgridge International Reading Center.
- Attended visit of **Dr. Rose Pringle**, Associate Professor of Science Education, University of Florida to the UCF CEDHP, June 24, 2016, 9 am-12 pm, Dean’s Conference Room, 308.
- Member of Serving High Needs Education SIG (formerly Urban Education SIG).
- **Attended visit of Deputy Under Secretary, U.S. Department of Education, Kim Hunter Reed** to the UCF CEDHP, Monday, June 20, from 9:30 to 11:20 a.m., Morgridge International Reading Center.
- **ClassFlow training**: Thursday, August 11, 2016, Morgridge International Reading Center, Session 1: 9:00am to Noon, Faculty members/Graduate Teaching Assistants. With ClassFlow, teachers can build and access interactive lessons from any web browser, share lessons with other peers and collaborate using the latest mobile and student response technology. Not only will ClassFlow help you save time at the planning and setup stages of lesson development, but it can also facilitate a more connected classroom. In simple terms, ClassFlow is cloud-based teaching software designed to make lesson preparation easier and lesson delivery more dynamic.
- **4th Annual International TeachLive Conference**: Virtual Human Interactive Performance, Wednesday, June 1, 2016 at 2:00 PM - Friday, June 3, 2016 at 3:30 PM (EDT), University of Central Florida, Orlando, FL.
- **Brown Bag Lunch Session** (Tuesday, March 15, from 12:00-1:30 p.m., ED 305). Dr. Jam Khojasteh, Assistant Professor of Research, Evaluation, Measurement, and Statistics in the College of Education at Oklahoma State University was our guest. His specialty areas include Structural Equation Modeling and Measurement Invariance. Dr. Khojasteh is a talented instructor who brings clarity to complex statistical operations, and he is also a successful researcher. Dr. Khojasteh presented ideas related to R, gave a basic overview of R and then provided examples of how to perform some analyses with R.
- **Meeting with Group of External Consultants**: Invited to attend a meeting with Group of External Consultants Visit to UCF (March 28th at 12:00). Health and Biomedical Sciences on in Millican Hall 395E. UCF brought three external consultants to review graduate education and research. The goals of the review were to have the team provide UCF with 1) their insights on areas of distinctive impact that we can develop in graduate education and research; 2) an analysis of the strengths, weaknesses, opportunities and threats (SWOT) of both areas; 3) future paths for innovation and partnerships; and 4) recommendations for organizational support—including the kinds of support that these areas can/should provide to the university. The consultant team consisted of:

Dr. Sethuraman "Panch" Panchanathan, Senior VP of Knowledge Enterprise Development (Arizona State)—who will serve as chair of external review team;

<https://cidse.engineering.asu.edu/directory/sethuraman-panchanathan/>

Dr. Marion K. Underwood, Dean of Graduate Studies and Associate Provost (UT Dallas); [http://www.utdallas.edu/news/2015/6/10-31584 Marion-Underwood-Selected-as-the-New-Dean-of-Gradu_story-wide.html](http://www.utdallas.edu/news/2015/6/10-31584-Marion-Underwood-Selected-as-the-New-Dean-of-Gradu_story-wide.html)

Dr. Caroline Whitacre, VP for Research (Ohio State);

<http://research.osu.edu/about/leadership/>

Dr. David Hagan, Associate Dean of Academic Programs, College of Optics and Photonics, served as an internal member of the review team.

- **Robert D. Martin Lecture with Dr. Lisa Regalla** (October 6, 2015). Focuses on learning out of school, 2:30 pm – 3:30 pm, ED 305. University of Central Florida, Florida. The focus of the lecture was careers in education outside of formal school, Life Long Learning. Dr. Regalla is currently the Deputy Director of Maker Ed, a non-profit organization that provides online training and support to create hands-on and community-specific “making” programming.
- **Open Course: Stanford University** (Spring, 2015): Education: Introduction to Mathematical Thinking by Stanford University, Dr. Keith Devlin on Coursera.
- **21st Annual Joseph C. Andrews Mentoring Celebration**, Black Faculty and Staff Association’s, Wednesday, February 25, 2015, 8:00 a.m. – 10:30 a.m., UCF Student Union Pegasus Ballroom. Guest speaker: Dr. Bernice King.
- **Family Educational Rights and Privacy Act (FERPA) Training**, UCF Online Training Courses. University of Central Florida, January 27, 2015.
- **Neuroscience and Brain-Friendly Assessments: Dr. David A. Sousa**: What they are and how to use them. Webinar. Learning Sciences International. Wed, January 21, 2015, 3:00 pm - 3:45 pm.
- **State of STEM Education**: Room 316 CD University of Central Florida, Research and Commercialization (9:00 a.m. – 12:00 p.m., August 25, 2014). In recognition of the importance of STEM Education, this event showcased STEM Education development at UCF. A keynote presentation provided up-to-date information about NSF investment in STEM Education.
- **Open Course: Stanford University**: Education: *EDUC115-S How to Learn Math: For Students* (June 16 – December, 2014). Taught by: Dr. Jo Boaler, Stanford University. This course was divided into six sessions. They were designed to give a positive relationship with mathematics and to teach powerful mathematics learning strategies.
- **The Nation's Report Card**: 2013 Mathematics and Reading - Trial Urban District Assessment, National Assessment Governing Board (NAGA), Online workshop, 1:00 pm – 3:00 pm, December 18, 2013. <http://nationsreportcard.gov>.
- Research Seminar Series: UCF and Orange County Public Schools Collaboration in Grants and Research, 12:00 – 1:30 pm, November 21, 2013, TA 130.
- Research Network Initiative, UCF and College of Medicine at College of Medicine Facilities, 4:30 pm – 6:30 pm, October 28, 2013.
- Impact, Performance and Visibility Faculty Work Sessions, UCF CEDHP, ED 208, 10:00 – 11:00 am, February 8, 2013.
- ActivBoard Training Class, UCF, TA 117, 10:00 am – 12:00 pm, January 23, 2013.
- Using NVivo as a Research Tool, by Webinar Made Easy, 10:30 am – 11:30 am, January 22, 2013.
- Problem Solving, RtI and Mathematics Education (2012). 13th Annual Literacy Symposium. University of Central Florida, Orlando, Florida:
 - Brain-Based Research as it Relates to Literacy and the RtI Process by Nina Kuhun.

- National Council of Teachers of Mathematics (NCTM) 2011 Annual Meeting and Exposition, April 13-16, 2011, Indianapolis, IN.
- American Educational Research Association (AERA) 2011 Annual Meeting:
 - Professional Development Course: A Hands-on Introduction to Latent Class Model, Rasch Models, and Their Extensions directed by Dr. Matthias Von Davier, Educational Testing Services (ETS), Sunday, April 10, 2011, New Orleans, LA.
- NCTM 2011 Interactive Institute on High School Mathematics, July 28-30, 2011, Orlando, Florida.
- IWB Professional Learning Opportunities: Clickers/Assessing Content on an IWB Workshop organized by Drs. Wegman (March 25, 2011), UCF, Orlando, Florida.
- IWB Professional Learning Opportunities: Promethean Active Board Workshop by Drs. Wegman, and Spalding (November 11, 2010), UCF, Orlando, Florida.
- Process Oriented Guided Inquiry Learning (POGIL) Workshop: University of Florida, Gainesville (November 6, 2010). The workshop involved the development of new classroom materials utilizing an active learning, and team-based approach. It is based upon a pedagogical approach and the learning cycle model developed for chemistry under an NSF CCLI National Dissemination grant (DUE-0231120). Rather than sitting in traditional lectures, students work in teams to complete worksheets that guide them through the process of learning. In this way students are actively engaged in processing the information and have the opportunity to utilize and develop important skills such as teamwork, communication, and critical thinking.
- Optical Topography System Training presented by Dr. Joerg, Hitachi Medical Corporation, Japan. (Fall, 2009; Spring, 2008). College of Education, University of Central Florida.
- Fiore, Stephen M. Presentation about External and Explicit: Encouraging Knowledge Integration via Explicit Metacognitive Prompting while Learning Complex Tasks. UCF Department of Philosophy and Institute for Simulation and Training, PSY 226. November 19, 2009.
- Workshop presented by the Florida Hospital Institutional Board. The Changing World of Research: How It Affects You (March 30, 2009). Orlando, Florida.
- SoTL Day Faculty Showcase (Spring 2010; Spring 2009; Spring 2008; Spring, 2007; Spring, 2006).
- Noyce Foundation Principal Investigators Conference (July, 2010; July, 2009; June, 2008; June, 2007). Washington, D.C.
- Noyce Foundation Phone Conference (December, 2007; December, 2006).
- LiveText C2 Demonstration, Lance Tomei, ED 207, June 12, 2009.
- Promethean Active Board Workshop. September 11, 2009
- Florida Hospital Institutional Review Board Spring Conference. The Changing World of Research – How It Affects You. Werner Auditorium – Ginsburg Tower, Orlando, Florida. Sponsored by Florida Hospital and Adventist Health System. March 30, 2009.
- LiveText C2 Presentation, Lance Tomei, ED 207, March, 2009.
- ActiveBoard Workshop, UCF College of Education, Teaching Academy Room 203. February 20, 2009.
- TI-Nspire Calculatior Workshop, UCF College of Education, Teaching Academy Room 130. February 20, 2009.
- Annual Conference of the Association Mathematics Teacher Educators. (February 5-7, 2009). Orlando, Florida.
- FERPA Tranning (Fall, 2008).
- Turnitin Workshop, Faculty Center (Fall, 2008).

- Optical Topography System Demonstration (October 11, 2007). UCF Neuroscience Laboratory.
- Research Seminar: College of Education Budget Office Meeting (November 14, 2007).
- Florida Council of Teacher of Mathematics Leadership Conference (September, 2007; September, 2008). Orlando, FL.
- Calling All Program Coordinators! (October 10, 2007). UCF Faculty Center for Teaching and Learning.
- SoTL Research Project Workshop Series. UCF Faculty Center (Summer 2006, and Spring 2007). Orlando, FL.
- 35th Annual Conference of the International Society for Exploring Teaching and Learning. Hilton Cocoa Beach Oceanfront, Cocoa Beach.
- UCF SoTL Conference: Faculty Showcase, Orlando, Florida (March 2007, March 2006, March 2005, and March 2008).
- 5th International Conference on the Scholarship of Teaching and Learning (SoTL). London, England (May 12 and 13, 2005).
- Summer Conference hosted by The Faculty Center for Teaching and Learning, the Office of Diversity Initiatives, and the International Studies Office (May 2-5, 2005). The Faculty Center supported faculty who were interested in: the Scholarship of Teaching and Learning (SoTL), assessment of learning outcomes, research, service learning, interdisciplinarity, student engagement, or other innovations. I worked on the SoTL in terms of using game and cooperative learning groups.
- Annual Meeting of the National Council of Teachers of Mathematics. (2016, 2014, 2013, 2012, 2011, 2009, 2008, 2007, 2006, 2005, 2004, 2003).
- Annual Meeting of the Florida Council of Teachers of Mathematics. (2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007, 2006, 2005).
- TODOS: Mathematics for ALL Conference (2016, 2014, 2013, 2012, 2011, 2009, 2008, 2007, 2006).
- Annual Meeting of the College Teaching and Learning Conference. (January 3-7, 2005). Orlando, Florida.
- Video 101 (October 26, 2004-November 9, 2004). Course Development and Web Services Professional Development course for video. We met for a total of five times.
- LiveText Trainings (May, 26, 2004, 8:30 a.m. – 5:00 p.m.; May 13, 2003, 1:00 pm.-4:30 p.m.; February 20, 2003, 8:00 a.m. – 10:00 a.m.). LiveText is the new electronic system to be implemented by College Education programs for assessment purposes, including the Master of Arts in Elementary Education and Master of Arts in Middle School Mathematics.
- Studio Classroom Series (\$500.00 awarded for participating) (Spring 2003): This workshop involved training in the use of the Classroom Building technology classrooms. This training is required in order to use these classrooms. MAE 5318 was the intended audience.
- Harvard Institute on Brain-Based Research (June 21 - June 27, 2003). Sponsored by the UCF Teaching and Learning Academy (\$3,000.00).
- Dreamweaver MX Brown Bag Meeting (September 24, 2003), UCF Library.
- TaskStream Workshop (January 8, 2003, 1:00 p.m.-5:00 p.m.). Electronic that was being considered for adoption for the College of Education assessment system, including graduate and undergraduate programs.
- The Renaissance Partnership Workshop. (July 12-13, 2002.) KCI Hilton, Kansas City, MO.
- NECC Presentations and Workshops. (June 14-June 19, 2002.) San Antonio, TX.
- 2002 Professional Development Schools National Conference: Breaking Ground, Building a Foundation, and Keeping House: PDS as Cornerstone for School Renewal. (March 7-10, 2002.) Orlando, Florida.

- Electronic Portfolio Development. (January, 2002.)
- Online IRB Training Course (3 semester hours). (April, 2002.)
- UCF ESOL Strategies Training Program. (Fall 1999-Fall 2001.)
- Impact Technology Training. (December, 2001.)
- IDL 6543: Interactive Distributive Learning for Technology-Mediated Course Delivery. UCF Course Development and Web Services. (Fall 2000.)
- Web-CT Workshop. UCF Course Development and Web Services. (Fall 2000.)
- UCF Summer 2000 Faculty Development Institute. (April 30-May 2000.)
- Advising Training: Net Meeting. (December, 1999.)
- UCF College of Education Technology Professional Development Training Sessions: (December, 1999): Web CT, Palm Pilot, Group Wise, Inspiration Software.
- Annual Conference of the Research Council of Diagnostic and Prescriptive Mathematics (February, 1991-1999).
- UCF Technology Workshop: Web CT. (December, 1997).
- Develop Your Own Web Page: Quick and Easy. (December, 1997).
- Building Your Own Home Page. (May, 1997).
- Delivering Instruction Via the WWW. (April, 1997).
- UCF Seminar: Web-based Technology, Dr. Oakley. (January, 1997).
- Brown-Bag Seminars (UCF Education Building): Fox-Fire Approach (Fall, 1991).
- Alternative Assessment. Mike Hynes. (Spring, 1992).
- Toward a Multicultural Perspective in the College of Education and in Our Nation's Schools. Marti Bell, et., al. (Fall, 1991).
- Video Technology: Hot New Topic. Donna Baumbach. (Fall, 1992).
- What Counts in the Studio Classroom. Dan Kirby. (Fall, 1991). Central Florida Writing Project Fall Mini-Conference: When Writers Teach, University of Central Florida, Florida (September, 1992).
- Distinguished Lecturer on Multicultural Education. Prichey Smith. UCF Education Building (April, 1992).
- DrawPerfect Graphics Software Workshop. Title III Articulation Project: Valencia Community College and University of Central Florida. UCF Visual Arts Building (April, 1993).
- DSR In-House Research Grant Program Workshop. UCF Administration Building (November, 1991).
- Florida Council of Teachers of Mathematics Annual Conference. Florida (August, 1990-1993).
- FIRN Workshop. Craig Stephens and Larry Hudson. Education Computer Center, UCF Education Building (May, 1993).
- Multicultural Education Presentation: Puerto Rico. Victor Garcia, OCPS Social Worker. UCF Education Building (April, 1992).
- Multicultural Education Course (Spring, 1992).
- The National Educational Computing Conference: The Magic of Technology. Marriott's Orlando World Center, Florida (June, 1993).
- Participant at the Third Annual Conference on Recruitment/Retention Strategies for Minority Students (April 1, 1992).
- The Preparation of Elementary Mathematics Teachers (POEMT) Project. Florida International University. A two-year project for professors funded by the National Science Foundation. Miami, Florida (Summer, 1993-Summer 1995).
- Sharing Session on How to Improve the Candidate Search Process with Dick Finnegan, Director of Human Resources at Sun Bank. UCF Education Building (April, 1993).

- Technology Update: Site visit to Tampa Avenue Offices of Orange County Public Schools (April, 1993).
- Teaching Workshop: Team Learning. College of Business Administration Faculty Development Workshop. Dr. Larry Michaelsen, University of Oklahoma (July 9, 1993).
- Visit to Dr. W. J. Creel Elementary School Greenhouse. Melbourne, Florida (March, 1993).
- Visit to Webster Elementary School. St. Augustine, Florida (February, 1992).
- Visit to Federal Aviation Administration Center for Management Development (June, 1993).

Special Skills

Technology:

- The candidate has competency with programming languages (Visual Basic); web-development software (Dreamweaver); word processing programs (Microsoft Word); information processing programs (database, spreadsheet); experience with software programs called computer-symbolic mathematics (muMath); telecommunication technology; and regular and graphing calculators. He has familiarity with PC, and Mac platforms and softwares (simulations, instructional games, tutorials, and problem solving. The candidate has competency with SAS, and SPSS statistical packages, and Fathom Dynamic Statistics Software, and Geometer's Sketchpad.

Languages:

- The candidate speaks, reads, and writes proficiently in Spanish.