

Elizabeth Wilkinson Edmondson, Ph.D.
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Education:

Bachelor of Science, Zoology. May 1980. Duke University, Durham, North Carolina.

Master of Arts in Teaching, Biology. August 1983. School of Education, University of North Carolina at Chapel Hill.

Master of Science. May 1988. Curriculum of Marine Sciences, University of North Carolina at Chapel Hill.

Ph.D. Curriculum and Instruction. May 13, 2005. Eugene T. Moore School of Education, Clemson University. Dissertation Title: Collaborative Dialogue: Exploring Fourth Graders' Discussions of Science.

Current and Recent Positions:

Principal Investigator and Project Director, Science Education Grants, Virginia Commonwealth University, Department of Teaching and Learning, School of Education, Richmond, VA.

- PI for two Virginia Department of Education Mathematics and Science Partnership Grants (VDOE MSP) and Co-PI for one- VISTA ELIS and VISTA MELIS (3 year grants, ending September 30, 2018).
- Project Director for Richmond Diocese Catholic Schools Project and Henrico Middle School Science Teachers Soar Grant (VDOE MSP to District). March 15, 2015 to August 31, 2016.

Director VISTA, Virginia Commonwealth University, Department of Teaching and Learning, School of Education, Richmond, VA. Website: vista.gmu.edu. March 2011 to September 30, 2015.

- *Elementary Science Institute Themes*: Man's Impact on Environment (2011); Space Explorations (2012); Energy: Use, Extraction, Alternatives (2013); Marine Systems (2014); Man's Impact on Global Systems (Climate Change) (2015).
- *Secondary Science Methods*: Introductory and Advanced Courses (2011-2015).
- *New Science Coordinators Academy*: Co-facilitator 2011-2015.
- *Science Education Faculty Academy*: Co-facilitator 2011-2015.
- Manage Budget, Hire and Evaluate Staff, Coordinate with other sites, Recruit teachers and coaches, Develop and Deliver Coach Professional Development, Coordinate planning and deliver institutes and courses at VCU, oversee purchasing of science materials for teachers (\$1000 per teacher), conduct internal research projects (New Science Coordinators Academy and Elementary Science Institute).

Science Educator, Biological Sciences Curriculum Study (BSCS), Center for Professional Development and Center for Research and Evaluation, Colorado Springs, CO. Remote Employee. May 2007- March 2011. Projects involved with:

- Research and Evaluation: National Academy for Curriculum Leadership: Middle and High School, Three Year Institute, Washington State, Designed and conducted multi-level and multi-participant evaluation study for Washington State Cohort 2, provided reports after Institute events based upon evaluation data collected at the events, collected and analyzed classroom data and other documentation to provide yearly feedback on impact to funders. 2007-2010.
- Research and Evaluation: NEXT STEPS Institute, sponsored by the Association of Science Materials Center (ASMC), developed evaluation plan, collected and analyzed data, developed report for the ASMC Advisory Board, Fall 2007.
- Professional Development: STeLLA (Science Teachers Learning from Lesson Analysis), NSF-funded efficacy study of lesson analysis of videocases and classroom video, Assistant Project Manager, develop instructional units, oversee videocase development, support PD facilitators in pilot and research study year, coordinate with the research team the collection of research data, 2009-2014.
- Professional Development: Jefferson County Public Schools, Middle School Leadership Cohort, lead Professional Development, develop Support Documents for use of Scientific Explanations with their curriculum, coordinate with Resource Teachers and District Leadership, 2010-2011; Assist with High School Leadership Cohort and SILT, assist with delivery of professional development of Leadership Team and 60 additional teachers, develop PLC sessions for the Resources Teachers to implement with SILT Teams, 2010-2012.
- Professional Development: Fellow, Institute for Learning (IFL) at the University of Pittsburgh, Collaborative initiative with BSCS, Disciplinary Literacy Science Team, District Assignments: Pittsburgh Public Schools and Prince George's County Maryland; Responsibilities: Lead Professional Development for Teachers, Curriculum Writers, School Administrators, Coordinate with the Assistant Superintendent and Science Coordinator, Edit and Revise work of Curriculum Writers, Develop Plans for future work in collaboration with the district. 2007-2010.
- Professional Development: Cincinnati Public Schools, Lead Professional Development (PD) for K-6 Science Specialists to enhance content and pedagogy, Prepare Science Specialists to lead or assist in co-facilitating PD sessions with K-6 teachers, Lead PD for K-6 Teachers to enhance content and pedagogy, 2009-2010.

Academic Appointments:

Assistant Professor, Elementary and Early Childhood Education. Eugene T. Moore School of Education. Clemson University. Taught Elementary Science Methods, Early Childhood Science Methods, Submitted Grant Proposals, and Conducted Research. Fall 2005 to May 2007.

Lecturer Elementary Education, Eugene T. Moore School of Education, Clemson University. Taught Elementary Science Methods, Early Childhood Science Methods, and

Advanced Elementary Science Methods, Fall 2003 – Spring 2005.

Other Professional Positions:

Science Specialist/*Science and Math to Go!* Coordinator. Anderson Oconee Pickens HUB. South Carolina Statewide Systemic Initiative (SC SSI) (Funding from National Science Foundation and the SC Legislature). Implementation of the SC Science Standards and coordination of *Science and Mathematics To Go!* professional development. Coordinated workshops designed to introduce teachers to hands-on inquiry science and mathematics through *Science and Technology for Children Kits* (STC kits) developed by the National Science Resource Center. 1994-2007. Sample Institutes and PD follow:

Administrative Leadership Institutes. Co-facilitated institutes for school teams composed of the principal and two teachers who experience frameworks based math and science and explore strategies for teaching and assessing mathematics and science, and develop and implement a plan for school wide change in mathematics and science.

Curriculum Leadership Institute I and II. Co-facilitated three-week institutes conducted during the summer for teachers to develop their expertise as leaders in math and science education. Institutes are composed of Demonstration Lessons by the teachers and facilitators, Doing the Discipline (experiences designed to reflect the nature of science and mathematics inquiry), Reading and Reflection, and White Space (participant time to explore issues of teaching and learning).

Data Analysis Toolkit. SC SSI developed. A two-day institute designed for school teams to look at school data and design steps for action. Model built upon the work of Victoria Barnhardt in *Data Analysis for Continuous School Improvement*.

Math and Science Unit Coaching Institute I and II. Summer 2003. Developed by the State Department of Education and SC SSI. Faculty during both weeks. Lead presenter on three sessions of Institute I and Lead co-presenter of content sessions of Institute II.

Family Math and Science. Co-facilitated the training of school teams interested in using the national Family Math and Science model for working with children and their parents.

NSF/ *Science and Math to Go!* Impact Schools Project. Designed to assist schools working to impact student achievement in mathematics and science. Co-facilitated 6 schools sites where 6 days of professional development, standards-based curriculum materials (STC kits), a system of materials support, appropriate assessment strategies and opportunities to increase community involvement were provided.

Science and Reading to Go! Project Director. Developed and provide professional development, technical and material support for 15 teachers and 5 retired GE employees. Participants implemented exemplary reading and kit-based science

materials in grades 3 through 5. Funded by General Electric Foundation.

Standards in Practice. South Carolina Certified Trainer. Developed by Education Trust. A model for systematic alignment of work assigned to students with the standards. Involves training of school-based teams in the process and follow up assistance.

Public School Teaching:

Fall 1981-Spring 1982, Fall 1983-Spring 1985. Science Teacher. Chapel Hill High School, Chapel Hill-Carrboro City Schools, Chapel Hill, North Carolina. Taught Biology I, Applied Chemistry/Physics, College Prep Chemistry, and Oceanography.

Fall 1988- Spring 1994. Department Head 1990-1994. Science Teacher. West-Oak High School, Oconee County Schools. Practical Biology. Applied Biology/Chemistry (State Pilot Site). Environmental Science. College Prep Biology I. Led professional development for teachers across the state of South Carolina on the Applied Biology/Chemistry Program. Worked with Tri-County Technical College faculty and local businesses.

Science Research Positions:

Research Assistant. Department of Surgery and Immunology, Duke Medical Center, Durham, North Carolina. Carried out research projects concerned with melanoma cancer using mice and rat models. Summer 1979.

Research Technician. Pediatric Immunology and Allergy, Duke Medical Center, Durham, North Carolina. Carried out research projects and clinical testing on children with immunological problems. May 1980-August 1981.

Research Assistant. Institute of Marine Science, UNC-Chapel Hill, Morehead City, North Carolina. With Dr. Alan Shanks, Carried out projects concerning the formation of marine snow, recruitment of zooplankton and meiofauna into marine snow, and vertical flux of marine snow in Cape Lookout Bight. May 1986-July 1988.

Licensure and Certification:

1988 - current. South Carolina PhD Science Education Certificate

2006- current. Virginia Postgraduate Professional License, Doctorate Degree, Biology

Research Publications in National, Refereed Journals:

Shanks, A.L. & Edmondson, E.W. 1989. Laboratory-made Marine Snow: A biological model of the real thing. *Marine Biology*. 101(4): 463-470.

Shanks, A.L. & Edmondson, E.W. 1990. Vertical flux of Metazoans (holoplankton, meiofauna, and larval invertebrates) due to their association with marine snow. *Limnology and Oceanography*. 35(2): 455-463.

Edmondson, E., Mannarino, A., Reid, V., Sterling, D. (2015). Science Leadership: Impact of the New Science Coordinator Academy. *Virginia Mathematics and Science Coalition Journal*. Spring 2015.

Maeng, J. & Edmondson, E. (2016). Integrating Science and Literacy: VISTA ELIS Professional Development. *Virginia Mathematics Teacher*. Fall 2016.

Edmondson, E, Burgin, S., Tysbulsky, D, & Maeng, J. (2016-2017). Learning about NOS Through Authentic Science Experiences: Realities and Potential. Chapter in upcoming book: *The Nature of Science in Science Education: Rationales and Strategies*, edited by (Published by Springer). Accepted.

Edmondson, E. & Choudry, F. (2016). Talking the Talk: Exploring Teacher Learning and Their Use of Discourse Strategies. *School Science and Mathematics*. Under development.

Edmondson, E. (2016). Talk and Power: Changing our Dynamics. Under development.

Instructional Publications in Refereed Journals:

Leonard, W & Edmondson, E. 2003. Teaching Evolution through the FOUNDER EFFECT. *The American Biology Teacher*, 65(7): 592-597.

Leonard, W, Bassett, R., Clinger, A., Edmondson, E., & Horton, Robert. 2004. Making Connections with Digital Data. *The Science Teacher*. 71(1): 34-39.

Edmondson, E. Leonard, W., Peters, C., Baldwin, A.O. 2006. Talking Science, Modeling Scientists. *Science and Children*, Summer Issue, 43(8): 28-32.

Edmondson, E. 2006. Inquiry-based Science: Transitioning from Elementary to Middle Grades. Research Brief SCPOMLE. May publication.

Reports to State Level Commissions:

Lee, J., Lane, C., Edmondson, E., Haskell, D. 2006. South Carolina Middle Level Teacher Education Initiative- Science Middle Level Programs for Higher Education. South Carolina Commission on Higher Education.

Contributions to Instructional Materials:

Edmondson, E. (one of several writers) *SEALAB* (Science Experiments and Activities for Biology, Chemistry, and Physics). UNC Sea Grant. Spence, L. and Duckett, J. (Eds.). Spring 1990. Developed 3 Chemistry and 1 Biology Activity packets to supplement science curricula with marine science examples.

Edmondson, E. Applied Biology/Chemistry Books (CORD, cord.org): *Disease and Wellness* Unit- Four Labs; *Continuity of Life*- Seven Labs, *Microbiology*- One Lab, *Nutrition, Plant Growth and Reproduction*- One Lab, 1990-1992.

Leonard, W & Penick, J. 1998. *BIOLOGY: A Community Context*. Contributing Writer for Inheritance Chapter. South Western Publishers.

Science and Technology for Children Assessment Guides, Grades 1-2 Guides for Formative and Summative Assessment, Published by Carolina Biological Company, 2010.

Clinical Research Education for Secondary Students and Teachers, CRESST Curriculum, NIH SEPA Funded. Curriculum Standards Review of Alignment. 2016.

National Presentations:

American Educational Research Association Annual Meeting. 2015: Talking The Talk: Are We Getting There?

Association of Science Teacher Education. January 2006. Collaborative Dialogue: Exploring Fourth Graders' Discussions of Science.

Association of Science Teacher Educators- Middle Atlantic Region, October 2006, Poster session: Project Doe and its impact on Preservice and elementary students and Presentation: Early Childhood Preservice Students Perceptions of Scientists.

Joint American Society of Limnology and Oceanography and American Geophysical Union Ocean Sciences Meeting. Winter 1988. New Orleans. Uptake of Dissolved Organic Compounds by Laboratory Formed Marine Snow.

National Association of Biology Teachers. Fall 2002. Co-Presenter for "What does a Standards-based Biology Teacher look like?" and Using the Hardy-Weinberg Principle to Illustrate the Founder Effect. Cincinnati, OH. Leonard & Edmondson

National Association for the Education of Young Children, November 2006, Applications of the Reggio Emilia Approach to Early Childhood Science Education: Classroom Strategies for ECE Teachers.

National Council of Teachers of Mathematics. Spring 1996. Co-Presenter Integrating Math and Science: Sailing on Tin Pan Lake and Growing Creatures. San Diego, CA.

National Education Computing Conference (now ISTE). June 2003 and June 2005. Co-Presenter of workshop on XReport (Hand-held Technology and Web-based Portal for sharing of reflections). Baldwin, A., & Edmondson, E.

National Tech Prep Conference. Fall 1992. Chicago Illinois. Co-Presenter of Applied Biology/Chemistry Session on October 5 and South Carolina Tech Prep Conference. July 1992. Columbia SC. Presenter for Applied Biology/Chemistry Sessions for Science, Health Occupations, and Home Economics Teachers.

National Association for Research in Science Teaching, New Orleans, April 2007, Collaborative Dialogue: Exploring Fourth Graders' Discussions of Science; Indianapolis, April 2012, School District Science Coordinator Professional Development (VISTA PaperSet), Puerto Rico, April 2013, School District Science Coordinator Professional

Development Year 2 (VISTA Paperset) and VISTA: Developing Effective Elementary Science Teachers, Year Two (Stand-Alone Paper, second author), accepted for 2015: Science Coordinators: An Important Leadership Group (Paper and Presentation) and Talk and Power: Changing our Dynamics (Paper and Presentation)

National Science Teachers Association Convention.

- Hands-on Inquiry South Carolina Style: The South Carolina State Systemic Initiative. Philadelphia, PA. 1996
- Math to Go!. St. Louis, MO. Spring 2001.
- STC Curriculum presenter for Carolina Biological and 2 sessions with Dr. William Leonard. San Diego, CA. Spring 2002.
- 3 Sessions. Philadelphia, PA. Spring 2003
- 4 sessions: Digital Camera in High School Classroom, Hardy-Weinburg in the Classroom, XReport, Digital Camera in the Elementary Classroom. Atlanta, GA. Spring 2004.
- The XReport and Using the Digital Camera in the Classroom. Edmondson and Baldwin. Dallas, TX. Spring 2005. Anaheim, CA. Spring 2006. St. Louis, MO. Spring 2007, Boston, MA. Spring 2008.
- *A Picture is Worth ... A Million Words: Elementary Science Classrooms Investigating with the Digital Camera and Documenting Our Environment through PROJECT DOE*, April 2007.
- Documenting the Environment with Project DOE and Using the Digital Camera in the Classroom. Edmondson and Baldwin. Boston, MA. Spring 2008.
- Professional Development Institute. Inquiring into Inquiry. All day session. Spiegel and Edmondson. Boston, MA. 2008.
- Looking at Student Work- Elementary, Edmondson and Landes. and Inquiring into Inquiry: Implications for the Secondary Classroom, Bintz and Edmondson. Boston, MA. 2008.
- PD Institute: Inquiry into Inquiry (1 day) and Got: Inquiry: How do you know? (1 hour). Philadelphia, PA. 2010.
- PD Institute: Inquiry into Inquiry (1 day), Science Teachers Learning from Lesson Analysis (STeLLA), and Amplifying Your Curriculum through Argumentation, San Francisco, CA. 2011.
- PBL the VISTA Way: Edmondson, McDonnough, and Mannarino. Indianapolis, IN. 2012.
- PBL and Technology. Alexander, Matkins, Mannarino, and Edmondson and Professional Learning Communities (Kentucky Program): Schneider, Messer, Ising, and Edmondson. San Antonio, TX. 2013.
- Science and Children – Elementary Expo and Professional Learning Communities (Kentucky Program): Schneider, Messer, Ising, and Edmondson. Boston, MA. 2014.

State-level Presentations:

North Carolina Science Teachers Convention. Fall 1987. Workshop Session: Activities in Biology, Chemistry, and Physics for the High School through Marine Education. Greensboro, North Carolina.

South Carolina Science Council Convention. Fall 1990: Science in the 90; Fall 1991. DNA Fingerprinting in the Classroom; Fall 1992: Applied Biology/Chemistry and its role in Tech Prep; Fall 1995: Key Laboratory Activities for Applied Biology and Building Boats as a Model for Integrating Math and Science (SC SSI).; Fall 1996: Investigating Grow Beast Dinosaurs, Giants, and Babies: An Inquiry Exploring Size; Fall 1997: Inquiry in the Middle School with the Calculator Based Laboratory.: Fall 2002: Got Kits, Now What! Focus on Grades 3-5 Assessment; Fall 2004: 3 Presentations: Dissection; Raising Butterflies; STC and STC MS: Building a Continuum for Carolina Biological Supply Company; Fall 2005: 3 Presentations: The XReport: Student Online Dialogue, Calling All Higher Education Faculty: Let's Talk, Elementary Classrooms: Investigating with the Digital Camera.

South Carolina Council of Teachers of Mathematics. Fall 1997. Co-Presenter: *Science and Math to Go!* - Using mathematics and science kits in the elementary classroom.

South Carolina Association for the Education of Young Children. Fall 2004: Building Your Science Curriculum in an Early Childhood Classroom with Dr. Dolores Stegelin; Fall 2005: The Three M's of Science: Matter, Magnets, and Motion. Columbia.

South Carolina Council of Teachers of English. January 2006. Beyond Observations: Integrating Sustained Writing in Elementary Classrooms (Integrated Language Arts - Science Lessons).

Virginia AST Science Education Professional Development Institute, November 2006- It's Worth...A Million Words: Investigate with a Camera and Documenting Our Environment through PROJECT DOE; November 2010- Scientific Explanations in the Classroom and Enhancing Classroom Discourse; November 2011, Problem-based Science Education from VISTA (Edmondson and McDonnough); November 2012, Problem-based Science from VISTA (Edmondson and Logerwell) 2014.

University Presentations:

Edmondson, E. & Leonard, W. 2004, 2005. Graduate Student Research Forum, Sponsored by the Clemson University Graduate School, Collaborative Dialogue: Exploring Fourth Graders' Discussions of Science.

Edmondson, E. & Leonard, W. 2004, 2005. College of Health Education and Human Development Research Forum, Collaborative Dialogue: Exploring Fourth Graders' Discussions of Science.

Edmondson, E., Peters, C, & Baldwin, A. 2006. College of Health Education and Human Development Research Forum, Project DOE: Documenting Our Environment.

Invited Presentations:

Spartanburg One/Union County Summer Institute, May 2006, Sessions: Online Journaling in the Elementary Grades, Digital Imaging in the Middle Grades, Hobo Probes (Data Collectors) in the High School Classroom

NSTA 2007, St. Louis, National Presentations: Focus on Inquiry-When Kids Discover with the STC Program™: Light Unit; Storm the Standards-When Kids Discover with the STC Program™: Catastrophic Events Unit; Assessing what Kids Discover with the STC Program™: Grades, K–8

SC Science Adoption Caravan. January 10, 2007. STC MS Curriculum. Georgia HOSP Presentation. January 20, 2007. STC and STC MS Curriculum.

Faculty Member. National Sciences Resource Center Strategic Planning Institute for K-12 schools. New York State ECLIPSE. June 2007. Washington, DC National Institute, July 2009. (http://www.nsrconline.org/school_district_resources/programs_services.html)

Grants:

Sigma Xi Graduate Research Award, 1986.

South Carolina EIA Teacher Grant- DNA Fingerprinting in the Classroom, 1990-1991.

South Carolina EIA Teacher Grant- Biodiversity Issues, 1993-1994.

Investigating Weather with 4th Graders?. Project Circuit Grant, Clemson University PT3, Development of Weather Kit, Spring 2002.

Earth in Space: Capturing Student Curiosity, NASA SERCH Proposal, \$10,000, Lead Investigator, Fall 2002-Spring 2003.

Taking a Closer Look, Jericho Grant, awarded Fall 2002.

Project DOE: Documenting Our Environment, Service Alliance 2020, \$4000, Spring 2006, Engaged 3rd, 4th, 5th graders and preservice students after school in documenting the local environment with digital videocamera and iMovie and Earth Day Celebration with families. Principal Investigator with Chris Peters and Anna Baldwin

4-H WOW: Watching Oconee Weather, Service Alliance 2020, \$8000, Spring 2006, Engaged 4th graders in-school, after-school students, preservice students, Call Me Mister students, parents in watching and learning about local weather. Co-PI with Drs. Carol and David Weatherford.

VISTA Elementary Literacy Integrated with Science (ELIS) (Caroline, Chesterfield, Henrico, Richmond Public Schools) and VISTA MELIS (Petersburg City and Dinwiddie Schools), VA DOE Mathematics and Science Partnership Grants, ~\$600,000 and ~\$450,000 over three years), Engaging K-5 and grade 3-9 teachers in a three year cycle of learning how to integrate science and other STEM topics into and with literacy strategies. Principal Investigator on both grants.

VISTA ELIS at UVA, Co-PI, Albemarle County and Waynesboro City. VA DOE Mathematics and Science Partnership Grants, Engaging K-5 teachers in a three year cycle

of learning how to integrate science and other STEM topics into and with literacy strategies.

Middle School Science Teachers Soar (MSSTS). Henrico County Public Schools, from VDOE MSP, ~\$50,000.

STAT: Students and Teachers exploring Allied Health Trajectories. PI. Submitted June 2016 to NIH. ~1.3 million. Provide opportunities for teachers and students in historically underserved rural communities to build awareness, understanding, and skills along the various educational trajectories provided by allied health professions.

Professional Affiliation and Leadership Positions:

National Science Teachers Association, Preservice Committee 2004-2007; Research Committee 2007-2010; *Science and Children* Journal, manuscript review panel, began spring 2010 to current, Science and Children Advisory Board from Spring 2014-Spring 2017.

National Association for Research in Science Teaching- current, Outstanding Paper Award Committee, 2012-2014; Reviewer of Conference Proposals, Fall 2011- 2013.

Phi Delta Kappa- Clemson Chapter- President for 2004-2005, 2005-2006, Vice President for Membership for 2 years, Treasurer for 5 years, Foundations for 2 years

South Carolina Science Council (South Carolina Science Teachers Association with affiliation with the National Science Teachers Association) Vice-President Elect 1998, Vice-President 1998-1999, President Elect 1999-2000, President 2000-2001, Past-President 2001-2002.

Virginia Association of Science Teachers (VAST), Member and Presenter since 2009.

Virginia Children's Engineering Council (VCEC), Member and Presenter since 2012.

Virginia Mathematics and Science Coalition, Staff Member, Spring 2015-Spring 2016; Vice-President for Professional Development, Spring 2016- Spring 2018.

Virginia Science Leadership Association (VSELA), Member since 2010.

Courses Taught:

UNC Chapel Hill. Teaching Assistant for Invertebrate Zoology Lab, Biology I (Majors) Lab, Botany in Your World (General Non-majors Botany Course). 1985-1986, 1983.

Clemson University. Elementary Science Methods (ED EL 451). Fall 2002, Fall 2003 – 2006.

Clemson University. Early Childhood Science Methods (ED EC 420). Fall 2004 – 2006.

Clemson University. Advanced Science Methods (ED EL 826). Summer 2005 and 2006.

Virginia Commonwealth University. Secondary Science Methods I, Fall 2012, 2013, 2014. Secondary Science Methods II, Fall 2013, 2014. Face to Face and Distance Learning Classes.

Virginia State University. Biology 427 class and lab. (Science Methods Course). Fall 2015 and Fall 2016.

Program Evaluation:

Next Steps Institute (NSI) Evaluator, *Association for Science Materials Centers*, www.kitsupport.org, 225 participants. Designed evaluation plan, developed questionnaires, collection and analysis of data, final evaluation report. Institute: October 31-November 3, 2007.

Randolph Macon College NOYCE, Role: External Evaluator, 2015-2020.

Randolph Macon College, *Camino a la Ciencia: A Program Designed to Recruit, Retain, and Train Hispanic Women in STEM Disciplines*. Role: External Evaluator, 2016-2018.

Dissertation and Master's Committees:

Master's Committee Chair, M J Biggerstaff and Kathy Crawford, Graduated.

Master's Committee Member, Erin Lampman. Graduated.

Ph.D. Committee Member, for Alicia Clinger, Julie Hartman, and Tim Jacobbe, Current.

Other Professional Activities:

Applied Biology/Chemistry Training Institutes (10 conducted). Training included experience with Laboratory Exercises, Activities, Text Concepts, Video, and Industry visit. Graduate Credit Awarded. Length 2 weeks unless noted. Summer 1990- Spring 1995.

Chairperson for the Commission on Higher Education Task Force, Applied Biology and Chemistry Group. Evaluated Applied Biology/Chemistry in lieu of the traditional college prep courses now required for admission to four year colleges and universities. Spring and Fall 1993.

Trainer for NSRC Science and Technology for Children (STC) and Science and Technology Concepts for Middle School (STC MS). Trained by Carolina Biological to serve as a National/State Trainer. Summer 1998 and Summer 2000.

Field Site Coordinator for Field Testing of the STC MS Unit Earth in Space developed by the NSRC. Attended a week of professional development on the unit with the Field Test Teachers. Supported the three Field Test Teachers. Spring 2001.

South Carolina Transition to Teaching (T3) Coalition Teacher Certification Program. Secondary Methods Course Development on IBM Lotus LearningSpace for distance learning. <http://www.hehd.clemson.edu/TTT/index.htm>. Summer 2001.

Advisory Committee. Science and Technology for Children Revisions Project. National Science Resources Center. Smithsonian/National Academy of Science. Fall 2002 and Spring 2003.

National Science Resources Center K-12 Strategic Planning Institute. Strategic Planning Institutes involve teams exploring and developing a 5 year plan for the 5 elements of systemic reform in science education promoted by the NSRC. Team leader-July of 1999. Faculty- January of 2000. Presenter - January 2001 and May 2001. *Faculty for the New York State K-12 ECLIPSE Institute June 2007.*

National Science Teachers Association. *SPIR* (Science Program Improvement Review). SPIR Reviewer (2005- present). Assistant for 2 Schools in South Carolina (Fall 2006), Lead Facilitator for High School in western Virginia (Spring 2007)
<http://www.nsta.org/spir>

Honors and Awards:

Lyndhurst Foundation Fellowship, 1982-1983

UNC-CH Biology Department Teaching Assistantship, Fall 1985-Spring 1986

UNC-CH Marine Science Research Assistantship, Summer 1986-Summer 1988

Phi Delta Kappa Service Key, Fall 2000

Student-Faculty Study Group, Reggio Children Winter Institute at the Loris Malaguzzi International Center in Reggio Emilia. February 2006.

NSF K-12 Math, Science Curriculum and Implementation Projects Conference, Rising Star Fellowship, February 2006, Washington, D.C.

Instructional Technology Experience

PC and Mac Capable

Microsoft Office

Blackboard, Moodle, Elgg

Ti-Graphing Calculator

Vernier, Pasco, RED Probeware

Hobo Probeware (www.iscienceproject.com)

SMART Board

Weebly, Symbaloo

Powtoons, Plickers, Kahoot!

Digital Microscopes such as the QX3+ and others

Digital Camera and Videocamera
iMovie and MovieMaker Software
Journey North (A Global Study of Wildlife Migration)
<http://www.annenbergmedia.org/jnorth/>, Budburst, and other Citizen Science Projects
Google Earth
Online Collaboration- XReport, Digital Express, IV STEM Team (Moon Project:
<http://www.educ.ttu.edu/moon/>)
Kidspiration, Inspiration, InspireData
ExploreLearning GIZMOs, PhET simulations, Concord Consortium Simulations

Elizabeth W Edmondson- References

Kim Dye
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Dr. Thomas T. Peters
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