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EDUCATION

University of Virginia

Ph.D. Candidate (ABD), Curriculum and Instruction: Specialty areas include Teacher Education, Science Education, Educational Technology, and Evaluation.

Worcester State College

M.Ed., Science Education: General Science Teaching Certification, Grades 7-12.

B.Sc., Geography: Specialty areas include Planning, Physical Geography, and Cartography.

Additional Academic and Professional Training

Virginia Beach City Public Schools (1987-2003): Numerous and various workshops on curriculum, assessment, instruction, leadership (Baldrige, TQM), and data analysis to improve instruction.

PROFESSIONAL EXPERIENCE

Science Specialist, Central Savannah River Area, Math Science Unit of the South Carolina Department of Education – University of South Carolina, Aiken, SC (2003 – present). Work with six suburban and rural school districts to improve science education in the Central Savannah River Area. Activities center around creating and maintaining a professional learning community that uses research-based best practices in curriculum alignment and pacing, instructional strategies (especially differentiate instruction, collaboration, and inquiry), and instruction-driven assessment. Plan, implement, and assess major state-wide coaching initiative designed to increase student achievement. Key leader for Building a Presence for Science program of the National Science Teachers Association. Work with schools and school districts on writing a variety of grant proposals.

High School Science Coordinator, Virginia Beach City Public Schools, Virginia Beach, VA (1998-2003). Coordinated high school science program for the second largest school system in the state. Responsibilities involved four core areas: (1) developing curriculum that is in alignment with national and state standards, (2) monitoring instructional delivery, (3) planning and implementing professional development activities, and (4) communicating between central

office, teachers, and general public. Activities included revising curricula, creating activities that engage students, creating and teaching staff development activities and courses, presenting in public forums, coordinating the Building a Presence for Science program, observing new teachers, coordinating and judging science fair projects, monitoring teacher improvement plans in a data driven environment, supervising textbook adoption, and planning and implementing an Advanced Placement program for 4000 students. Member of several committees including Gifted Education Committee, Advanced Placement Committee, and Student Achievement Committee.

RECET Field Supervisor, University of Virginia, Charlottesville, VA (1997-1998). In alignment with state and national standards, the Research Experience and Curriculum Enhancement for Teachers (RECET) program was designed to give physics and physical science teachers experience conducting scientific research and to help teachers translate the research experience into inquiry-based learning activities so that students learn science by doing science. In a joint effort between the Curry School of Education and the Physics Department, teachers conducted research and attended courses that focused on physics content, pedagogy, and leadership. A masters degree in physics education was created as a direct result of this program, which included on-site and distance learning courses. Responsibilities included planning, implementing, and evaluating the project. These responsibilities included planning the project and grant proposal writing, preparing schedules and coordinating personnel for effective implementation, designing and teaching sessions, collecting and analyzing qualitative and quantitative data, and writing evaluations of the program for submission to the National Science Foundation (NSF) and the State Council of Higher Education for Virginia (SCHEV).

University Supervisor, University of Virginia, Charlottesville, VA (1995-1997). Supervised preservice science teachers during their student teaching experience and assisted teaching science methods courses. Coordinated the expectations the University and school divisions have for the preservice teacher. Met with a variety of school officials. Observed preservice teachers on a weekly basis, conducted pre-observation and post-observation interviews, and provided feedback to the preservice teacher that united theoretical and practical aspects of education. Wrote reports on preservice teachers' progress. Reviewed reports from master's-level students that were part of their final grade.

Instructor, University of Virginia, Charlottesville, VA (1995-1997). Assisted with planning, implementing, teaching, and evaluating summer program for physics teachers. Responsibilities included grant writing, coordinating field experiences for teachers at a variety of businesses and scientific research sites, coordinated guest lecturers, created lessons that combined graphing calculators and Calculator Based Laboratories (CBLs) with pedagogical content knowledge, evaluated the summer institute. Invited Guest Instructor for EDIS 545, Computers in Education. Taught preservice teachers how to use graphing

calculators and CBLs in a variety of settings; from elementary to high school and from social studies to physics classes.

Science Teacher, Enrichment Program for Gifted Students, University of Virginia, Charlottesville, VA (1996-1997). Designed and taught science course for elementary gifted students. Students conducted inquiry based/concept attainment laboratory investigations in the fields of physics, chemistry, biology, and earth science.

Grant Writing Consultant, University of Virginia, Charlottesville, VA (Summer, 1994). Worked with physics and education professors to rewrite a proposal to the National Science Foundation. Helped design the program and write the proposal with education and physics professors. Was instrumental in merging ideas each professor had from their respective disciplines and elucidating ideas into the proposal in such a way that they were in alignment with the National Science Foundation's philosophy and guidelines.

Science Teacher grades 7-12, Virginia Beach City Public Schools, Virginia Beach, VA (1987-1995). Taught Life Science (7th grade), Physical Science (8th grade), Earth Science, Contemporary Physical Science, Physics, and Advanced Placement Physics. Sponsored or co-sponsored a variety of clubs including junior high school science club, Junior Engineers and Technical Students (JETS), and Earth Science Club. Re-wrote the city's curriculum guide for Contemporary Physical Science. Designed and taught inservice workshop for physical science teachers who wanted to use toys to teach concepts in physical science in an inquiry-based manner. Assisted with designing and writing a grant proposal for Green Run High School that was submitted to the Southern Regional Education Board for Tech Prep funding.

Tutor, Learning Resource Center, Virginia Beach, VA (1989-1992). Tutored students in grades 6 through 12 in various subjects in physical and life sciences, mathematics, social science, and English.

Environmental Planning Consultant, Worcester County, MA (1984-1986). Assisted cities and towns (19 total) in preparing Conservation and/or Recreation Plans. Coordinated members of various municipal boards, and directed research activities involving wetlands, endangered species, and environmental management. Constructed maps and assisted in writing and editing plans for publication. Spoke at meetings involving citizens, press, and various local and state officials. Was instrumental in helping a town receive \$210,000 grant for land purchase.

PROFESSIONAL WRITING EXPERIENCE

The learning cycle: Reading to learn science as an active process (submitted Aug 2005). Science Teacher.

National Science Teachers Association Position Statement on Science Education Supervision (2004).

Science leadership in an era of accountability: A call for collaboration. The Science Educator (2003), The Science Educator, 12.

Intelligent teaching: Using the theory of multiple intelligences in the inquiry classroom (2002), Science Teacher, 69 (1), 44-48.

Inquiry learning in the science classroom (2000), The Science Educator, 48 (3), 15-17.

RECET Evaluation (1998) - Submitted to National Science Foundation.

RECET Evaluation (1997) - Submitted to State Council of Higher Education for Virginia.

GRANT WRITING EXPERIENCE

2005 - \$250,000. Submitted to South Carolina Department of Education for 21st Century funds for Barnwell School District.

1997 - \$31,920. Submitted to State Council of Higher Education for Virginia. Funding provided matching funds for physics and physical science teachers in the Research Experience and Curriculum Enhancement for Teachers (RECET) program at the University of Virginia. Teachers work with research scientists, and university professors conducting research and then create inquiry-based lessons related to the research experience.

1995 - \$4,200,000. Submitted to National Science Foundation. Recommended but not funded. Funding was to provide extensive professional development activities that involved teachers working with scientists, professors, and technicians, coursework, and an extensive plan to disseminate information to other teachers across the state.

1994 - \$50,000. Submitted to the Southern Regional Education Board. Funding provided to assist Green Run High School evolve towards a Tech Prep curriculum.

1985 - \$210,000. Submitted to Massachusetts Open Space Planning Commission. Funding was used by the town of Upton, Massachusetts to buy a mountain top to preserve as an open space recreation area.

CONFERENCE PRESENTATIONS

South Carolina Coaching Initiative (Summer 2005), Spartanburg, SC. Resources for Content Specific Professional Development.

South Carolina Coaching Initiative (Summer 2004), Columbia, SC. Resources for Content Specific Professional Development.

South Carolina Coaching Initiative (Summer 2003), Columbia, SC. Assessing Learning in the Classroom.

National Science Teachers Association (March 2003), Pittsburg, PA. How Building a Presence for Science Key Leaders and Points of Contact Create Professional Learning Communities.

National Science Teachers Association (March 2002), San Diego, CA. Points of Contact as Educational Leaders.

National Science Teachers Association (March 2002), San Diego, CA. Collaborative Teaching: Meeting the Needs of All Students in a High Stake Testing Environment.

Chesapeake American Association of Physics Teachers (November 2001), Richmond, VA. Review of Research on the Force Concept Inventory.

Virginia Beach City Public Schools Administrative Conference (Aug 2001), Virginia Beach, VA. Proven Strategies that Result in SOL Success: Inclusion to Help All Students Succeed.

Virginia Instructors of Physics (March 2001), Charlottesville, VA. Force Concept Inventory.

Virginia Beach City Public Schools Aloha Conference March 2001), Virginia Beach, VA. Inclusion in the High School Science Classroom.

National Science Teachers Association (March 2001), St. Louis, MO. Brain-based Research and Inquiry Science Learning.

National Science Teacher Association (Nov, 2000), Baltimore, MD. Student-Centered Inquiry Labs.

National Science Teacher Association (Nov, 2000), Baltimore, MD. Staff Development for Professional Growth of Science Teachers.

National Science Teacher Association (Nov, 2000), Baltimore, MD. Building a Presence for Science: Points of Contact as Educational Leaders.

Virginia Association of Science Teachers (Nov 2000), Roanoke, VA. Student-Centered Inquiry Labs.

Virginia Association of Science Teachers (Nov 2000), Roanoke, VA. Staff Development for Professional Growth of Science Teachers.

Virginia Beach City Public Schools Administrative Conference (Aug 2000), Virginia Beach, VA. Observing the high school science classroom.

Virginia Association for Supervision and Curriculum Development (Dec 1999), Williamsburg, VA. Building a presence for science: Points of contact as educational leaders.

Virginia Beach City Public Schools Administrative Conference (Aug 1999), Virginia Beach, VA. Inquiry-based Laboratories: Constructing knowledge through investigations.

SOS for the SOL - Sponsored by the Region II Science and Mathematics Coalition (June 1999), Newport News, VA. Using the Graphing Calculator in the High School Science Classroom.

National Science Teachers Association (Mar 1999), Boston, MA. Constructing meaning from analyzing data: A crucial component in a constructivist classroom.

Virginia Association of Science Teachers (Oct 1998), Richmond, VA. How to construct meaning from data: A crucial component in a constructivist classroom.

8th Annual Student Leadership Conference (Feb 1998), Charlottesville, VA. Roundtable discussion: Cultural diversity and school identity.

Virginia Tech (Feb 1998), Roanoke, VA. Research Experience and Curriculum Enhancement for Teachers (RECET).

Virginia Association of Science Teachers (Nov 1997), Virginia Beach, VA. Research Experience and Curriculum Enhancement for Teachers (RECET).

V-Quest (Feb 1995), Norfolk, VA. Discovery Experience and Curriculum Enhancement for Teachers (DECET).

SERVICE TO THE EDUCATION COMMUNITY

Publication Review Panel for The Science Teacher, National Science Teachers Association (2005 – Present).

Professional Development Committee Chair, South Carolina Science Supervisors Association (2004 – Present).

Committee on Coordination and Supervision of Science Teaching, National Science Teacher Association (1999-2003).

Virginia Science Education Leadership Association (2001-2003), Chair of Leadership Committee.

Tidewater Science Fair Congress (1998-2003), Committee Member

Virginia Association for Supervision and Curriculum Development (2001-2002), Board of Directors

Tidewater Association for Supervision and Curriculum (2001-2002), President

Huntington Middle School Science Fair (1997), Science Fair Judge, Hampton, VA.

Curry Community Committee (1995) University of Virginia, Charlottesville, VA