

2009-2010 Improving Teacher Quality State Grants Awards (No Child Left Behind Act 2001)

-College of William and Mary- SURN Leadership for Effective Teaching

Project Director: Dr. Jan Rozzelle

Amount: \$180,000.00

Abstract: SURN Leadership for Effective Teaching focuses on generating principal, assistant principal, and teacher dialogue on pedagogy and classroom-based data. SURN (School University Research Network) is a partnership of 26 school systems. Thirty principals and assistant principals in 15 targeted middle schools, including six from high-poverty school divisions, are receiving four days of training in collecting and discussing data related to observed teacher classroom practices. This is change in the professional practices of many administrators from the traditional evaluation observations to observations for formative growth which will provide teachers feedback that they can reflect upon to address their professional practices.

Four teachers from each participating middle school (60 total) are attending two professional development sessions offered in the fall that focus on mathematics strategies and changes. Administrators will apply their training in collecting and sharing classroom data to observations done on the mathematics teachers' instruction. Further, administrators will be asked to observe teachers not receiving the additional content area training. Resulting dialogues conducted with approximately 280 teachers will promote teacher reflection and enhance teacher effectiveness, which in turn will increase student achievement. Each participating school will coordinate a professional development session to be led by project staff for all their teachers of mathematics to that will be held in their school district and focuses on an area of need identified by the school's principal. An initial dissemination of project materials for mathematics will occur in December.

Sustained professional development includes workshops, on-site coaching support, and asynchronous virtual discussions. Changes in administrator and teacher practices will be measured using surveys and observations. An intensive workshop in summer 2010 will benefit the other school divisions belonging to SURN through the dissemination of the materials created and lessons learned. The refined observation protocols on classroom practices to promote formative growth are the focus for the dissemination activity.

-George Mason University-

I.M.P.A.C.T: Improving Mathematical Practices through Algebraic Connections & Technology

Project Director: Dr. Jennifer Suh
Amount: \$168,044.00
Abstract: I.M.P.A.C.T. in Math- Improving Mathematical Practices through Algebraic Connections & Technology: Piloting the Collaborative Mentoring Network Abstract IMPACT in Math: Improving Mathematical Practices through Algebraic Connections, and Technology is scaling up from a 2008-2009 SCHEV-funded project called Algebraic Connection and Technology, piloting a content-focused mentoring model called Collaborative Mentoring Network. The goal is to increase student learning by improving teachers algebraic, technology and pedagogical knowledge in the middle grades at targeted high-need districts and low-performing schools. The project will involve 100 teachers and administrators with summer institutes focused on mathematics content and pedagogy, follow-up Lesson Study and the Collaborative Mentoring Network via on-site and online mentoring with participants and university faculty that provides sustainable professional learning and broadens the impact of this project. Some unique features of IMPACT is that it is : 1) Solution oriented, targeting improving teacher quality and low-performing schools in the middle grades 3-8; 2) Content-specific professional development and mentoring, integrating research based practices in math and literacy in the content area; 3) Innovative math instruction using technology enhanced lessons and 4) SUSTAINABLE PROFESSIONAL LEARNING, designed with a blended learning approach, with on-site and on-line professional development that can distribute the learning to remote sites and have a broader impact in math teaching and learning.

-Hampton University-

Improving Literacy through Watershed Studies and Problem Based Learning

Project Director: Dr. Dianne Robinson
Amount: \$147,749.00
Abstract: Hampton University will collaborate with Portsmouth Public Schools, Portsmouth Christian Schools, Portsmouth Catholic Regional School and the Elizabeth River Project's Learning Barge to provide 30 teachers and 6 lead teachers with a year-long professional development project executed in three phases. Phase I will consist of a 2-day kick-off workshop focusing on the development of Problem Based Learning (PBL) modules that will increase students' science content knowledge of VA watersheds and improve literacy skills. Phase II will provide 12 after school sessions that emphasize: science content related to VA watersheds; use of the Learning Barge and GLOBE protocols to collect environmental measurements; and strategies for increasing literacy skills. Phase III will culminate with 3-days of field studies at the James

River State Park, where the teachers will conduct water sampling activities and present their final PBL products for peer review.

-Hollins University-

Hollins Inquiry, Integration and Differentiation Professional Development Project

Project Director: Dr. Michael Bentley

Amount: \$58,093.00

Abstract: Our project is a professional development institute for 30 grades 4-6 teachers from nine school divisions in Region VI addressing teachers' knowledge of science content specified in the Virginia Curriculum Framework. The project also addresses teachers' skills in integrating science, mathematics, and literacy in the curriculum through using research-based strategies: inquiry, active learning, and differentiated instruction. The program is "community-connected" and consists of an intensive two-week summer workshop with two academic year symposia. The watershed concept will focus field studies in local natural areas and will be extended in behind-the-scenes investigations offered through regional informal educational institutions – a planetarium and science center, a zoo, and a natural history museum.

-James Madison University-

Virginia Initiative for Robotics in STEM Education

Project Director: Mr. Dominic Swayne

Amount: \$200,000.00

Abstract: Virginia Initiative for Robotics in STEM Education (VIRSE) will provide upper elementary (grades 4-5), middle school (grades 6-8), and high school personnel of Martinsville, Richmond, Harrisonburg, Waynesboro, Staunton, and Augusta and Page Counties with a unique Science, Technology, Engineering and Math (STEM) development and instructional strategies program in using robotics to enhance SOL/STEM content instruction. In-service teachers, along with principals and other educational leaders, will implement and expand STEM instructional strategies and examine teacher induction and retention issues. Over a 15 month period, 4 workshops, school year sustainment activities, and an interactive technology learning site will be disseminated using curriculum, expertise and resources of James Madison University's Colleges of Education, College of Science and Mathematics, Outreach and Engagement and the New College Institute. There will be a total of 55 participants in this program over a total of 15 months through the fall semester 2010.

-Lynchburg College-
Responding to Critical Needs in Challenging Times

Project Director: Dr. Roger Jones
Amount: \$126,036.00
Abstract: The Central Virginia Regional Consortium (Amherst County, Appomattox County, Bedford County, Campbell County, Lynchburg City Schools, and Lynchburg College) has identified and responded to critical needs within our region through a multi-dimensional project. The primary areas of emphases are to improve the effectiveness of 4th and 5th grade math teachers in meeting the newly revised math standards; to provide content area teachers of adolescents with direct instruction in effective reading, writing, and economic literacy strategies; to enable provisionally licensed special education teachers to complete coursework for endorsement in special education-adapted curriculum; and to sustain these project initiatives.

-Old Dominion University-
Teaching and Leading for a Quality Mathematics Learning Environment

Project Director: Dr. Karen Crum
Amount: \$150,000.00
Abstract: The Teaching and Leading for a Quality Mathematics Learning Environment goals are to actively engage middle school mathematics teachers in integrated training in mathematics content, pedagogy, and formative classroom assessment skills; and provide the requisite professional development, knowledge base, and instructional leadership skills to school leaders in order to support quality mathematics instruction. 105 middle school teachers and school leaders in Norfolk Public School and Northampton County Public Schools will participate in field-based training and web-based learning activities from summer 2009 to summer 2010.

-Randolph College-
Science and Math Links: Research –Based Teaching Institute

Project Director: Dr. Peggy Schimmoeller
Amount: \$120,000.00
Abstract: This project will establish a research-based Science and Math Institute for K-8 teachers, designed to increase content knowledge and promote the use of an inquiry-based pedagogy aligned to the Virginia SOL. The Institute, facilitated by faculty from Randolph College and Lynchburg College, will serve four urban and rural public school divisions and two community-based non-profit organizations. Interactive content-based workshops, teaching experiences, and observation in the classroom are planned. A website will be used for

dissemination of resources developed. The partnership is expected to enhance teacher quality and improve science achievement in math and science, narrowing the achievement gap of K-8 students. Effectiveness will be assessed through multiple research methods.

-Virginia Polytechnic and State University-
Teach for Achievement: Data-based Decision-Making in Content Reading

Project Director: Dr. Heidi Anne Mesmer

Amount: \$150,000.00

Abstract: Teach for Achievement addresses the need for improved literacy instruction in grades 3-5 when students must face difficult, science and social studies texts. This previously-funded project is expected 1) to increase teachers' skill in reading instruction in ways that impact student achievement in reading, science and social science; and 2) to build the capacity of principals in high needs schools to improve literacy. The major part of the project will focus on 62 teachers in 3 Roanoke City Schools who will attend a institutes and then work during the 09-10 school year to improve student learning. In June of 2010 principals from high needs divisions from across the state will participant in a principals' literacy leadership conference.