

Assessment

To assess progress, practicum students and university supervisors will collect classroom observational data in the most unobtrusive manner possible. Participants will be given brief surveys to inform facilitators about their additional needs and to evaluate the effectiveness of these strategies. Data collected by the grant facilitators will be reported at the class and building level without information identifying individuals.

Project Goals

- ◆ Increase STM content and instruction implementation through the introduction to STM instructional strategies and resources including GPS, Robotics, Visual Mathematics and other support technologies currently used in the JMU-COE led Microsoft Learning Partners project and the Content Teaching Academy.
- ◆ Establish an enduring mentoring program between initial licensure graduate students, educational leadership candidates and existing teachers and administrators
- ◆ Research and articulate STM implementation and support issues through initial licensure graduate student inquiry projects.
- ◆ Increase building and division level leaders' use of effective strategies to support hiring, induction and retention of highly qualified teachers.

Michelle Hughes

Michelle Hughes was a classroom teacher and staff developer for 21 years before joining the JMU faculty in the Early Childhood/Elementary Program. Her interests focus on instruction and curriculum development in the elementary setting.



Bob Kolvoord

Bob Kolvoord has given professional development workshops in the use of technology in the classroom for nearly 20 years. He teaches in the Integrated Science and Technology and Geographic Science programs at JMU.



Denise Perritt

Denise Perritt was a classroom teacher, reading specialist and Assistant Superintendent before joining the JMU faculty in the Educational Leadership. Her interests focus on instruction, mentoring and leadership at the building level.



Nick Swayne

Nick Swayne has served as a FIRST Lego League coach and is teaching Lego Robotics in the 6th Grade at THMS. He is the Coordinator for External Relations in the College of Education.



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James Madison University

Partnerships for Realizing
Improvement in Science
and Math

PRISM



Part 1 of the
Workshop Series

August 6-10, 2007

Funded by the
State Council for Higher
Education—Virginia

Partnerships for Realizing Improvements in Science and Math (PRISM)

Meeting the demands of teaching SOL content AND actively engaging students can be challenging. PRISM, a two year funded project with Charlottesville, Harrisonburg, and Page County selected 4th, 5th and 6th grade teachers, will provide instructional materials and training in robotics, Global Positioning System/Global Information System (GPS/GIS), and visual math through James Madison University. Participants will attend a weeklong institute, **August 6-10**, to learn how robotics and GPS/GIS devices can be integrated in classrooms to **promote SOL knowledge** while engaging students in **problem-solving, creativity, and higher order thinking**. In June 2008, participants will attend the JMU Content Teaching Academy, **all expenses paid**, to learn visual math and music strategies for SOL content.

Twenty graduate-level JMU elementary education pre-service teachers, selected from a pool of over 70 eligible students will work alongside participating teachers to implement these practices in the classroom. In fall 2007, JMU graduate students will spend one day a week supporting classroom instruction, and be available to teach individual lessons. In addition, graduate students will investigate a pressing question about education that they would like answered, using the classroom as a source of data. This inquiry project will be aligned to the graduate student's grade placement and will not detract from meeting the classroom content requirements. In spring 2008, PRISM teachers will act as the co-operating teacher for 8 week student teaching placements of PRISM prepared students. During the 2008-09 school year, a similar process would occur.

BENEFITS OF PARTICIPATING

- ◆ Learn how to make science and math engaging
- ◆ Receive Lego Robotics and GPS/GIS training from qualified professionals
- ◆ **Keep your Lego Robotics kit and GPS device (valued at \$500.00)**
- ◆ **Earn 6 graduate credits** from JMU, that apply to recertification or masters degrees
- ◆ Receive a **\$100 stipend** each school year
- ◆ Have a graduate pre-service teacher assist and co-teach with you $\frac{3}{4}$ of the year
- ◆ **Receive support** from a JMU mentor and supervisor through-out the program

EXPECTATIONS OF PARTICIPANTS

- ◆ Attend the summer training August 6-10, 2007 and June 2008, **all expenses paid**.
- ◆ Welcome pre-service teachers and JMU supervisors/mentors in your classroom
- ◆ Complete project survey assessments
- ◆ Attend one-day **fall and spring update** forums
- ◆ Act as the co-operating teacher for 8 week student teaching
- ◆ Meet with your pre-service and JMU mentor/supervisor at mutually convenient times through-out the year

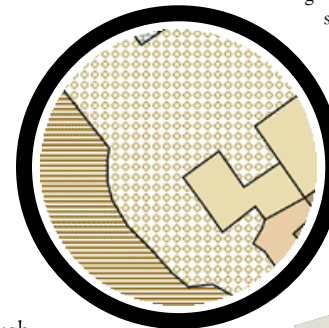
TIMELINE

May – late June: select participants
August 6-10: Summer training institute
August – December: work with your pre-service teacher in the classroom; support them as they complete their inquiry project
Late October: attend the fall update and review session
January – March: work with your student teacher (former practicum student)
Mid-March: attend the spring update and review session
Late June: attend the Content Teaching Academy for instruction on visual math and music
Late August – March: complete the cycle with a new pre-service student

Education Leadership Partnership Information

Education Leaders are essential to instructional innovation. PRISM administrative participants will work with their participating teachers and JMU education leadership students to support implementation of these STM instructional practices. Administrators will participate and observe instruction, provide feedback using praise and critical analysis to reflect upon the quality of instruction, model effective communication, gather data and use data/research to support STM practice. Like participating teacher's administrators will receive 6 graduate credits, \$500 worth of GPS and robotics equipment, four days of all expense paid training over two years and a \$100 stipend each year. Training will be held during the weeks of August 6-10, 2007; June 23-27, 2008. Four additional one day meetings will be held over the two years.

JMU Education leadership students, recruited for this opportunity, will typically be nearing the end of their master's degree or endorsement requirements for the K-12 administrative endorsement and/or license with up to twenty-five years of teaching experience. JMU education leadership students are highly regarded in the profession, eager to experience support and supervision from a practicing school administrator, and, in turn, to learn to support practicing teachers in the areas of instruction and professional development. Their work with PRISM will constitute part of their practicum experiences required by the Virginia Department of Education.



GIS and GPS give special understanding to many content areas

"One exciting aspect of PRISM is the emphasis on active learning and professional growth through collaboration. It is a wonderful opportunity for students and staff."

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