Project FOCUS:

A partnership between elementary schools and the University of Georgia

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Project FOCUS

- Fostering Our Community’s Understanding of Science
- Began with a conversation
- Elementary school teachers often have little science background
- Effective science teaching is time consuming
  - Lesson preparation
  - Materials preparation
- Science hasn’t been part of high-stakes testing at the elementary school level
The partnership

- UGA students who were passionate about science and kids
- UGA Department of Science Education
- School principal
- School teachers
- Cheryl Jones
Specific goals for the program include:

- Improve the science experiences of elementary students
- Provide experiences to students and teachers that will bring about more positive attitudes about science
- Improve the science content knowledge and confidence of local elementary teachers
- Increase support for elementary school science teaching
- Develop a sense of community involvement for UGA students that will continue after graduation
- Enhance the communication and leadership skills of UGA students
The structure

- Create a 3-credit, graded A/F course, initially as a special topics course within departments of CAES
- After two years, developed a specific interdisciplinary Project FOCUS class
- Students had to apply to the program, indicating:
  - GPA (2.5 minimum)
  - Number of science credits they’ve earned (12 minimum)
  - Experiences with children
  - Reasons for taking the class
  - Have a class schedule that would allow spending 3 hours a week in the elementary classroom between 8:30-2:30 M-F
The structure (continued)

- Ten students enrolled initially (two graduate and eight undergrad)
- Interested teachers provided us with their schedule for science teaching, then we matched student and teacher schedules
- Held a full-day orientation at the elementary school for the UGA students the first Saturday of the semester
Orientation
Orientation
The requirements

- Students spend 3 hours each week for a total of 40 hours/semester in the elementary school classroom.
- The specific role of the UGA student in the classroom is left to the teacher/student partnership to determine, but must be active.
- Students work closely with their partner teacher:
  - Create the lesson plan
  - Prepare materials needed for any hands-on exercise
  - Teach the topic to the children
The requirements (continued)

• Students also spend one hour a week in a reflection section led by the doctoral science education student.
• Each week students write a reflective journal entry on a topic relevant to the course.
• TA evaluates these journals.
• TA is direct liaison to schools, principals and teachers.
• TA observes each student in the classroom at least once.
Grades for UGA students

- Teacher evaluations (3 @ 10% each) 30%
- Reflective journals 20%
- Reflection sessions 20%
- Summary reflection 10%
- Overall professionalism and participation 15%
- Best lesson presentation 2.5%
- UGA club presentation 2.5%
The elementary schools
So what has happened?

- Second semester we had 6 students
- Course was initially designed only for CAES students
- Following fall I had several students come to me indicating that it was totally unfair that they couldn’t take the class just because they weren’t in CAES
- Opened the class up to all qualified students at UGA
- Word of mouth and student recruitment kicked in
Who enrolls?

- About 75 majors
- About 55% either biology or biological science majors
- Almost all science majors have been represented (animal science, chemistry, computer science, genetics, horticulture, microbiology, etc.) as well as advertising, finance, French, history, magazines, Spanish, sociology and others
- Large number of pre-professional students (pre-med, pre-nursing, pre-dentistry, pre-vet)
- Average GPA about 3.5
- Average 35 science credits (9-12 courses)
- About 80% female
How many enroll?

- Started in fall 2002, so this fall is our 10th anniversary
- Enrollment spiked at 80/semester, has settled to about 60 each term
- Roughly 950 students have participated in the program
- Not unique students, since about 15-20% repeat the class at least once
- A corresponding 950 teachers have also participated (also not unique teachers)
- Roughly 20,000 children have participated
- Now in 7 elementary schools, all in Clarke County
Cost of the program

- Portion of faculty salary
- TA salary
- Provide $30/student for supplies
- Students pay tuition to participate
- We don’t have the funds to reimburse travel costs to the elementary school
Excellent TA support
Impact

- We have had excellent TA support, including addition of a second TA once enrollment grew to 60.
- Several have used Project FOCUS as the subject of their doctoral research, finding that FOCUS increased UGA students’ management of their own learning process and that FOCUS teachers have gained knowledge and experience in teaching science.
- We have not studied impact on children’s understanding of science for various reasons.
Impact (continued)

- Teacher comments have included appreciation for the extra adult in the classroom that can provide more individualized and flexible teaching
- Teachers appreciate the enthusiasm brought by the UGA students
- Teachers comment on the lessons and materials students are able to create and provide
- Teachers appreciate the fresh ideas as well as the science background the students bring to the classroom
Impact (continued)

- Through support from OSL and Shannon Wilder, we recently sent a survey to all UGA students who had participated in FOCUS from fall 2004-spring 2011 and who had graduated from UGA (475 alumni)
- Surveyed a corresponding group of graduates who had not done Project FOCUS (2000 alumni)
- Higher Education Research Institute’s (HERI) Life After College Survey: A Survey of Former Undergraduates (LAC)
- Project FOCUS participants are:
  - More likely to be involved in community activities
  - More likely to be interested in solving community problems
  - More likely to be a leader in community activities
  - More likely to volunteer
  - More likely to be connected back to UGA through alumni activities
Impact (continued)

- About 10-15% of the participants changed or are considering changing their career objectives and plan to be involved in teaching at some level.
- PRISM grant program and BOR STEM initiative have provided financial support for TA salaries.
- BOR had grant program several years ago to “Replicate Project FOCUS” on other campuses of USG.
- UGA was designated an Engaged University by the Carnegie Foundation, citing Project FOCUS as one of three key examples of UGA community engagement.
Study abroad

- Project FOCUS will be going to Ecuador for the second time during the first summer session.
- UGA students and two teachers will be presenting Our Shared Forest curriculum developed by the State Botanical Garden to five schools in the Andes and the coast of northern Ecuador.
More information

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