

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:
Summer Science Camp

Description

This project provides a community engagement activity for the Center for Science Education faculty and students that supports collaboration with the Vigo County School Corporation (VCSC) and the Terre Haute community. The goal is to enhance children's interest and knowledge in science content and in science related careers. This will provide professional development opportunity for our newest Science Education faculty member (Eulsun Seong) and pre-service teachers (undergraduate elementary education students. In addition to developing and implementing age-appropriate curriculum materials (based on Indiana Science Standards), the pre-service teachers and teachers from VCSC (4 teachers assist with the Camp), and Science Education faculty gain more experience with elementary-aged students and parents, and other camp participants. It is our plan to approach local science-related industry professionals (Pfizer-affiliate) and encourage their participation in the Summer Science Camp, as well.

How do you see community engagement activities fitting in with your department in the future?

Community engagement is vitally important to Science Education students and faculty and we look for additional opportunities to incorporate C.E. activities in the education process.

What do you feel has been the impact of the project?

We have had great success in educating/allowing elementary education students to better realize what a full day of teaching requires and the K-6 participants (and parents) love all the attention and new science projects that come about each year.

Faculty involved with students in this project outside of class

Dr. Susan M. Berta, Interim Coordinator for Science Education
Dr. Eulsun Seong, new AY0708 Assistant Professor of Science Education

Who from the community is involved?

Mr. Steven Moore will serve as Science Camp Co-ordinator (former adjunct professor in SCED at ISU and currently chemistry teacher at Terre Haute South Vigo Senior High School)

Who from ISU is involved?

Dr. Susan M. Berta, Interim Coordinator for Science Education
Dr. Eulsun Seong, new AY0708 Assistant Professor of Science Education

Number of Students	Where it takes/took place	Is this activity ongoing
20 undergraduates	ISU Science Bldg, Terre Haute, IN & region	Yes

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

INDOT Consulting Contract for open end Archeological Services

Description

This open end contract for \$600,000 represents the commitment that Indiana Department of Transportation (INDOT) has made to ISU Anthropology Lab for as-needed assistance with environmental impact assessments or other archeological consulting needs.

How do you see community engagement activities fitting in with your department in the future?

These experiences are invaluable for our students and we plan to promote community engagement activities in the future.

What do you feel has been the impact of the project?

The contract is in place but no projects have begun at this date.

Faculty involved with students in this project outside of class

Dr. C. Russell Stafford, Professor of Anthropology

Who from the community is involved?

As needed, INDOT personnel will be working with Dr. Stafford, Mark Cantin, anthropology lab assistants and student workers.

Who from ISU is involved?

Dr. C. Russell Stafford, Professor of Anthropology
Mr. Mark Cantin, Assistant Director of Anthropology Lab

Number of Students	Where it takes/took place	Is this activity ongoing
more than 1	State of Indiana	Yes

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

International Research Experience in Env Science: Collaborative Venice Lagoon Res and Comm Education

Description

This project provided a rare opportunity for an undergraduate geology major, Ellen Bruillette, to participate on a multi-million dollar international research project with well-known Scripps Institute of Oceanography and Italian scientists. Ellen assisted with water and lagoon floor sample collection, data analysis and has presented preliminary research results at the ISU Undergraduate and Graduate Research Showcase in April, 2007. In addition to examining the biogeochemistry and ecology of the polluted sediments of the Venice Lagoon in Italy, Ellen prepared a poster and additional education materials made available to Vigo County educators and any other educators interested in the information.

How do you see community engagement activities fitting in with your department in the future?

We greatly value community engagement activities and will continue to incorporate them in student work as much as possible.

What do you feel has been the impact of the project?

Ms. Bruillette has received many graduate assistantship offers because of her advanced skill set related to processing the data she collected on the trip. Students at ISU are highly motivated to do well in hope of future experience opportunities.

Faculty involved with students in this project outside of class

Dr. Anthony Rathburn, Associate Professor of Geology

Who from the community is involved?

Scripps Institute scientists (Univ. of San Diego) and affiliated scientists along with Italian scientists, and the Venice water Authority personnel who participated in the research cruise.

Who from ISU is involved?

Ms. Ellen Bruillette, geology major
Dr. Anthony Rathburn, Associate Professor of Geology

Number of Students	Where it takes/took place	Is this activity ongoing
1 from ISU	Venice, Italy and Terre Haute, IN	No

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Integrating Marine Ecology, Environmental Research, and Community Education

Description

Ms. Cassie Gray, an ISU geology major is actively participated on a summer research cruise off California (San Diego to San Francisco). She is currently in San Diego. She will be preserving samples on board and interacting with research scientists from Woods Hole Oceanographic Inst. (WHOI), Univ. of Florida, Scripps Inst. Of Oceanography, The Natural History Museum of London, and the Australian National University. She will then process and examine seafloor samples under a microscope in the lab at ISU or WHOI. Ms. Gray will spend part of the summer at WHOI learning new techniques (funded, in part by an NSF grant) and will also apply these new techniques using a new, advanced microscope at ISU (available in 2007 as part of this project). Ms. Gray will present the results of her research at a national and/or regional Geological Society of America Conference. The undergraduate will also give presentations about her research experiences in ISU classrooms (Gen Ed), and to local schools.

How do you see community engagement activities fitting in with your department in the future?

We are strong supporters of C.E. Activities and look to increase our participation rate among our students in the future.

What do you feel has been the impact of the project?

This project is taking place right now. We anticipate that Ms. Gray will be able to convey the excitement and relevance of this research to the scientific community, ISU campus, and local community

Faculty involved with students in this project outside of class

Dr. Anthony Rathburn, Associate Professor of Geology

Who from the community is involved?

From the oceanography community, research scientists from Woods Hole Oceanographic Inst. (WHOI), Univ. of Florida, Scripps Inst. Of Oceanography, The Natural History Museum of London, and the Australian National University

Who from ISU is involved?

Ms. Cassie Gray, geology undergraduate major
Dr. Anthony Rathburn, Associate Professor of Geology

Number of Students	Where it takes/took place	Is this activity ongoing
1	San Diego and San Francisco, CA, Woods Hole, Mass.	Yes

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Life and Biogeochemistry of Extreme Seafloor Environments: Combining Global Change Research with Edu

Description

David Bohnert, an undergraduate geology major, will be assisting with the assessment of the seafloor ecology of an "extreme" (methane seep) environment in Monterey Bay, California. He will be assisting scientists through data collection in determining the factors that influence the ecology and geochemistry of the seep microfauna. His participation in this research cruise will allow him to convey the excitement and relevance of this environmental research to the scientific community, ISU campus, and local community

How do you see community engagement activities fitting in with your department in the future?

We strongly support and actively participate in C. E. Activities.

What do you feel has been the impact of the project?

The research cruise is this summer.

Faculty involved with students in this project outside of class

Dr. Anthony Rathburn, Associate Professor of Geology

Who from the community is involved?

Oceanographic experts/research scientists on board the research cruise are from Woods Hole Oceanographic Inst. (WHOI), Univ. of Florida, Scripps Inst. Of Oceanography, The Natural History Museum of London, ISU, and the Australian National University.

Who from ISU is involved?

David Bohnert, an undergraduate geology major
Dr. Anthony Rathburn, Associate Professor of Geology

Number of Students	Where it takes/took place	Is this activity ongoing
1	coast of Monterey, CA and T.H. IN	Yes

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Informal Science Learning, the Viz Room, and Community Education Outreach w T.H. Children's Museum

Description

Create a 3-Dimensional science visualization room (VizRoom) at the Terre Haute, IN Children's Museum. Dr. Beilfuss will evaluate the effectiveness of providing 3-D graphics in an informal setting to convey science concepts. Young people ages 5 to 12 will benefit from ISU's exploration of visualization technology in this small museum environment that will require minimal supervision to operate. This project will provide the potential for sustained learning in a 3-D format as it will allow for future modification including a variety of dynamic scientific images over time.

How do you see community engagement activities fitting in with your department in the future?

Every community engagement activity we've been involved with has had very positive outcomes. We hope to increase our involvement in C.E. activities.

What do you feel has been the impact of the project?

VizRoom technology available to Vigo Co. residents & visitors is very exciting. Dr. Beilfuss awaits IRB approval to assess informal science learning using 3-D graphics. This will assist youngsters' interest in Science and visualization education.

Faculty involved with students in this project outside of class

Meredith Beilfuss (Susan Berta added to the team as of May 4, 2007)

Who from the community is involved?

David Felstein, (now the former) Director of the Terre Haute Children's Museum.

Who from ISU is involved?

Meredith Beilfuss, Kenneth Janz, Edward Kinley, and Susan Berta

Number of Students	Where it takes/took place	Is this activity ongoing
2 undergraduates/15-30	Terre Haute Children's Museum	No

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Experience in Project-Based Science Learning: Monarchs at Fuqua Elementary School

Description

This experiential learning project engaged elementary school children from Fuqua Elementary with undergraduate science education majors from ISU in studying the habitat preferences of Monarch butterflies.

How do you see community engagement activities fitting in with your department in the future?

This continues to be a very positive experience and we are considering pursuing additional funding from the Indiana Space Grant Consortium for continued work

What do you feel has been the impact of the project?

The students at ISU and at Fuqua appreciated the chance to interact with each other and study basic science principals (inquiry-based learning) using Monarch butterflies as their research subject.

Faculty involved with students in this project outside of class

Dr. Meredith Beilfuss

Who from the community is involved?

one teacher and her students at Fuqua Elementary School

Who from ISU is involved?

Meredith Beilfuss, Assistant Professor of Science Education, Department of Geography, Geology and Anthropology

Number of Students	Where it takes/took place	Is this activity ongoing
2 ISU and 30 Elem school	Fuqua Elementary School	No

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Of Tsunamis & Ecosystems: Combing Globally relevant science with Community Education

Description

This 2005-2006 Undergraduate Fellowship was awarded to Jessica Adamic, a geology major working with Dr. Anthony Rathburn.

How do you see community engagement activities fitting in with your department in the future?

Community Engagement is very worthwhile and we will continue to be involved and strive to be more engaged in the future.

What do you feel has been the impact of the project?

Community interest in and knowledge of tsunamis and their impact has been heightened recently as a result of the devastating tsunami of January 4, 2004. Educating the public about the potential hazards and impacts is important to reduce public fear.

Faculty involved with students in this project outside of class

Dr. Anthony Rathburn, Assistant Professor of Geology

Who from the community is involved?

Elena Perez, Portugal, Spain and various scientists from Scripps Institution of Oceanography at University of San Diego.

Who from ISU is involved?

Jessica Adamic, a geology major
Dr. Anthony Rathburn, Assistant Professor of Geology

Number of Students	Where it takes/took place	Is this activity ongoing
1	ISU Paleooceanography Lab, Terre Haute, IN	No

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Environmental Science from Italy to Terre Haute: Integrating Science & Comm. Education ...

Description

Mr. Jared Kluesner, a geology major was awarded a 2005-2006 Lilly Foundation Undergraduate Fellowship, under the supervision of his advisor, Dr. Anthony Rathburn. Jared created a web-site that allowed him to download video coverage from his trip to Venice Italy where he participated in a research cruise on the Venice Lagoon studying serious water pollution concerns. The video coverage was used as part of several geology courses and footage may also be viewed in the Science Bldg, 1st floor center hallway near the aquarium and terrarium exhibits.

How do you see community engagement activities fitting in with your department in the future?

They bring heightened interest and awareness of our programs. We seek to increase community engagement activities in our department.

What do you feel has been the impact of the project?

Jared is a native of Terre Haute, IN. This very unique experience not only enlightens students about the Venice lagoon and related water quality issues but assures them that students from Indiana are capable and actually sought after to participate

Faculty involved with students in this project outside of class

Dr. Anthony Rathburn, Assistant Professor of Geology

Who from the community is involved?

Research scientists from all over the world invited to investigate the Venice Lagoon... including geologists, marine biologists, chemists,.. with international distinction in their research areas.

Who from ISU is involved?

Jared Kluesner, undergraduate geology major
Dr. Anthony Rathburn, Assistant Professor of Geology
Dave Taylor, Director, Media Relations

Number of Students	Where it takes/took place	Is this activity ongoing
1 traveler and >100	Venice, Italy and Terre Haute, IN	No

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Comparative Analysis of Ohio's Greenhouse Industry

Description

This research investigation involves a partnership between The University of Toledo, Bowling Green State University, Ohio State University, and Indiana State University to investigate the economic geography of Ohio's greenhouse industry. Research involved the development of a modified survey instrument redesigned to determine the trajectory of Ohio's greenhouse industry.

How do you see community engagement activities fitting in with your department in the future?

We will continue to increase our involvement with community engagement activities.

What do you feel has been the impact of the project?

Better planning strategies / economic development oversight for greenhouse industries in Ohio.

Faculty involved with students in this project outside of class

Dr. Jay Gatrell, GGA
Dr. Thomas Steiger, Sociology

Who from the community is involved?

From the agricultural community: greenhouse industry managers and growers from northwest Ohio. From academic community: Ravlin, W., Reid, N., Carroll, M., Frantz, J., Pasian, C., Perlaky, J., Smith, B., Krauskopf, D.

Who from ISU is involved?

Mr. Eric LaFary, GGA ('05-'06)
Dr. Jay Gatrell, GGA
Dr. Thomas Steiger, Sociology
Mr. Trevor Fuller, Masters student; GGA ('06-'07)

Number of Students	Where it takes/took place	Is this activity ongoing
2	consulting sessions were held in Toledo, OH	Yes

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Geochemistry of the Wabash River and Adjacent Depositional Environments: Methods and Community Education Outreach

Description

Two ISU classes during the Spring 2006 semester (Geochemistry and Science Education) worked collaboratively to conduct an experiential learning project along the Wabash River. The students designed a class research project, carried out field sampling, interpreted geochemical data, and presented their findings to the T. H. Parks Department. The students also prepared a poster displayed in City Hall relating to environmental issues pertaining to the Wabash River and Terre Haute.

How do you see community engagement activities fitting in with your department in the future?

C.E. is an excellent means of more fully engaging students in hands-on experiences that benefit them and the community. We will continue to seek out C.E. activities.

What do you feel has been the impact of the project?

Greater appreciation for working in the field as they collected surface soil and river sediments. The groups then split up and geochemists did the analysis while science education students determined the best way to convey the results to the community.

Faculty involved with students in this project outside of class

Dr. Jennifer Latimer, Assistant Professor of Geology
Dr. Meredith Beilfuss, Assistant Professor of Science Education

Who from the community is involved?

Mr. Greg Ruark, Director of T.H. Parks Department

Who from ISU is involved?

Dr. Jennifer Latimer, Assistant Professor of Geology
Dr. Meredith Beilfuss, Assistant Professor of Science Education
And students in their classes.

Number of Students	Where it takes/took place	Is this activity ongoing
25	Fairbanks Park in T.H. and in ISU GEOL & SCED labs	Yes

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Water Quality: An Experientail Learning Project Engaging High School & Undergrad Students

Description

N/A at this time

How do you see community engagement activities fitting in with your department in the future?

We will continue to increase our involvement in community engagement activities.

What do you feel has been the impact of the project?

N/A at this time

Faculty involved with students in this project outside of class

Dr. Meredith Beilfuss, Assistant Professor of Science Education

Who from the community is involved?

N/A at this time

Who from ISU is involved?

Timothy J. Porter, Science Education Major
Dr. Meredith Beilfuss, Assistant Professor of Science Education

Number of Students	Where it takes/took place	Is this activity ongoing
1 from ISU; N/A at this time	N/A at this time	Yes

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Community Information Systems: A Spatial Policy Framework Using GIS ..T.H Urban Enterprise Zone.

Description

N/A at this time

How do you see community engagement activities fitting in with your department in the future?

We plan to continue our involvement with community engagement activities.

What do you feel has been the impact of the project?

N/A at this time

Faculty involved with students in this project outside of class

Dr. Jay Gatrell, Associate Professor of Geography

Who from the community is involved?

N/A at this time

Who from ISU is involved?

Trevor Fuller, Geography Masters student (05-06)
Dr. Jay Gatrell, Assistant Professor of Geography

Number of Students	Where it takes/took place	Is this activity ongoing
1	Terre Haute, IN	No

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Incorporating Remote Sensing Technology into the High School Science Classroom

Description

In-service teachers came to campus for a three-day training institute on the basics of remote sensing and image analysis. Selected images and datasets on an interactive CD produced for an earlier NASA grant project were distributed to the teachers. The workshop introduced teachers to elements of the most sophisticated technologies used to acquire and analyze data for scientific inquiry in the classroom.

How do you see community engagement activities fitting in with your department in the future?

We remain committed to involvement in Community engagement activities.

What do you feel has been the impact of the project?

Teachers are much more excited about the additional source of information they can use in their classrooms. They also appreciate having contacts with ISU GGA that they can turn to in the future for assistance.

Faculty involved with students in this project outside of class

Dr. Meredith Beilfuss, Assistant Professor of Science Education, GGA
Dr. Qihao Weng, Associate Professor of Geography, GGA

Who from the community is involved?

High school teachers in Vigo County, IN

Who from ISU is involved?

Dr. Meredith Beilfuss, Assistant Professor of Science Education, GGA
Dr. Qihao Weng, Associate Professor of Geography, GGA

Number of Students	Where it takes/took place	Is this activity ongoing
15 workshop attendees	Terre Haute IN, ISU GGA	No

**Indiana State University
Community Engagement Activities
Department Annual Report
2007**

Project Name:

Mapping Community Services for Children/Families in Vigo County

Description

The goal of this project was to produce a GIS map and continuum map outlining the range of services (i.e. prevention, at-risk, crisis) available to children and families in Vigo County. This GIS mapping project allows for visual inspection of the locations of various existing services to determine the extent to which transportation may be an obstacle in obtaining services. The continuum of services "map" aids in identifying "clusters" of agencies and "gaps" in coverage. This final products are invaluable as they provide information on current services and will allow for future evaluation of progress toward serving the community effectively. This data is crucial in securing grant funding for future community projects.

How do you see community engagement activities fitting in with your department in the future?

We will continue to include community engagement activities in our research and incorporate it more in our courses.

What do you feel has been the impact of the project?

Helped us to understand the relationship between community service organizations and population demographics.

Faculty involved with students in this project outside of class

Dr. Liz O'Laughlin, Dept. of Psychology
Dr. Rhonda Impink, Dept. of Social Work
Dr. Ryan R. Jensen, Dept. of Geography, Geology & Anthropology

Who from the community is involved?

T. H. Human Services office
Indiana Youth Institute office, Indianapolis, IN

Who from ISU is involved?

Dr. Liz O'Laughlin, Dept. of Psychology
Dr. Rhonda Impink, Dept. of Social Work
Dr. Ryan R. Jensen, Dept. of Geography, Geology & Anthropology
3 undergraduate students (1 from each department)

Number of Students	Where it takes/took place	Is this activity ongoing
3	Terre Haute, IN (ISU)	Yes