AC 2007-103: COMMUNITY DEVELOPMENT IN A GLOBAL CONTEXT: AN INTERNATIONAL SERVICE-LEARNING PROGRAM

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Introduction

In 2007, the University of Arkansas began a new program in service learning in developing countries. The students in the program enrolled in a broad interdisciplinary lecture course with more focused project teams on the UA campus in the spring and are spending the summer session in Belize working on service projects in and around the city of Dangriga. The project for the engineering team involves finding water and sanitation solutions for a community that was identified as having a high incidence of waterborne diseases. In addition to typical engineering tasks, the project involves several broader aspects of public health engineering including health surveys and health education. Other student projects are in the disciplines of agricultural development, social work, literacy studies, conservation and ecology, international economics, and education and health professions. The objectives of the course are to immerse students in the issues and practical realities of living and working in a different culture, specifically in a developing country, and to make a significant positive contribution to the development of a specific community.

The spring course, team-taught by faculty from all the disciplines involved, is a 3 hour upper level humanities course; the summer session in Belize for engineering students will count as a 3 hour engineering technical elective and an additional 3 hour humanities elective. The program in Belize is administered by Peacework, a broad-based non-government organization who manages over 100 projects in developing communities around the world. The Northwest Arkansas professional chapter of Engineers Without Borders (EWB) as well as the UA student chapter of EWB are providing technical assistance. This program interfaces with several other new UA efforts in service-learning and in engineering in developing countries. The program is supported by the University of Arkansas Honors College, which provided significant funding for travel and other costs for development of the program, as well as by funding from the colleges and departments involved.

The theme that unifies the diverse disciplines involved in the program is community development, specifically in the postcolonial society of Belize, but more generally in underdeveloped societies everywhere. We believe that the academic model developed in this course will provide a framework, both theoretical and practical, for understanding the complexity of the challenges facing those striving to develop a community in an environment of limited resources, historical deprivation, and cultural alienation. Our conviction is that this interdisciplinary service learning model will ultimately be applied to other developing societies, both overseas and in our nation. For instance, the economic, technological, and cultural situation of Belize and many other developing countries strongly resembles that of the Arkansas Delta, or the Native American reservations of the Southwest. We hope to be involved for several years with this program in Belize and then expand the course and program to other countries.

The Belize context

The decision to focus on Belize as the subject of the first iteration of this model was prompted by an invitation to visit the country in February 2006 along with representatives of Peacework, an NGO with offices in Virginia and Prague and run by an Arkansas alumnus, Stephen Darr. Darr and his staff place students and faculty from a number of American universities in places needing volunteer services for community development: Vietnam, Cameroon, Appalachia, Ghana, Dominican Republic, the Hopi Reservation, Nepal, Russia, and Belize, among others. Peacework partners with us in this service learning course, helping us make local arrangements for students and faculty during their stay in Belize, and connecting us with their extensive Belizean network of leaders in higher education, health care delivery, politics, and the schools. Belize is a good choice for us to initiate a service-leaning program. The country is English-speaking, travel there is relatively uncomplicated, convenient and safe, and the culture and organizational infrastructure there are welcoming to projects like ours.

Our principal goal on the February trip was to identify a Belizean community with which we could partner in our service learning project. After visiting several towns we settled on Dangriga, a city of about 10,000 on the coast of the Caribbean. Culturally and linguistically, the city is a fascinating mixture of Creoles, Mestizos, and Mayans, though it is dominated by the Garifunas, a Caribbean people descended from African slaves and indigenous groups. Dangriga offers numerous facilities in which our students, with direction from their faculty mentors, can learn about the community while contributing to its development. For students interested in health professions, for example, there is a relatively modern clinic desperately in need of volunteers to support its small professional staff. The city is home to Ecumenical College, a rapidly growing facility whose faculty are eager to collaborate with ours in several areas but particularly business, since Dangriga is the home of the nation's citrus industry as well as the center of a rapidly expanding tourist trade. And there are two large schools in or near the city, both of which need a wide range of volunteer services: tutoring in every subject, facilities design and renovation, crisis intervention training for teachers and social service providers, and more. The Stann Creek district, which includes Dangriga, has the highest incidence of waterborne diseases in the country of Belize and is in need of public health assistance.

Dangriga is attractive to our students for other important but less strictly academic reasons. The city is safe, the people are friendly to outsiders, the Stann Creek district is mountainous and beautiful, and the town is within easy reach of all of Belize's attractions: barrier reef islands, rain forests, Mayan ruins, and much more.

In August 2006, two recent UA grads were sent by UA and Peacework to Dangriga for several months to build relationships and do legwork for the projects. The faculty team visited again in October to set up the projects. The town of Bella Vista, about an hour's drive from Dangriga, was identified by local authorities as having a problem with waterborne diseases and was selected to be the focus of the engineering project.

The spring lecture course

The three-hour spring course, entitled "HUMN 4253 Community Development in a Global Context: An International Service Learning Program", is interdisciplinary and team-taught, though listed in the Humanities department with a single instructor of record. Its goal is to introduce the students to Belize in the context of developing and specifically postcolonial communities generally. Belizean subject matter – the nation's history, languages, race relations, infrastructure, social structure, health system, agriculture, politics, economics, and ecology – is presented. Belize, as a representative developing society, will be illuminated from each of the disciplinary perspectives represented by the teaching team in order to understand how the identity of the community is shaped by the interaction of its parts, and how this interaction inevitably shapes the community's development. Five of the twenty-five lectures given in the spring course are given by the engineering faculty. Topics of the engineering lectures include technical information on water and sanitation, the concepts of sustainable and appropriate technology, and applications in Belize and its region.

Assigned readings for the course include a recent social and political history of Belize [5], as well as articles chosen by the teaching team, including general readings on development [1,4,6], specific information on Belize and its neighbors[2], and reading on service learning[3]. Each member of the team offered lectures relating her or his field to Belize, with the instructor of record responsible for ensuring continuity and encouraging understanding of the relationships among the various perspectives offered by the team. Each member of the team will attend each class and participate in the ongoing conversation.

During the spring semester, students divide into teams to plan the summer projects. The projects are divided by discipline; however, a student may choose to participate in a project in a different discipline than their own. The engineering-lead public health project team has 13 primary members – 11 from Engineering (including Civil, Biological, Chemical, and Mechanical Engineering), one from Architecture and one from the Business school. In addition, an education student and an economics student are primarily assigned to other teams but are working with the engineering team to assist in health education development and economic analysis of a town's water system, respectively. The students are assigned tasks within the team that match their skills and interests as well as challenge them to learn more.

The teams meet outside of class to work on the design of their service projects. All necessary technical learning and design, materials ordering, and fundraising take place outside of the class. The engineering upperclassmen, who have had classes in water and wastewater system design, are task leaders within the team. In addition, the local professional and student chapters of EWB, the local professional chapter of ASCE, and the local Rotary Club have promised technical and fundraising assistance. Three students and three faculty members are traveling to Belize during Spring Break to make further arrangements for the projects.

Of the 15 students working with the engineering project in the spring, 10 are going to Belize in the summer. All of the students who are registering for engineering credits in the summer are engineering students. In the initial planning process, the spring course was designed to have the

students register for a one-hour practicum in their team's discipline in the spring semester. However, discussions with prospective students suggested that the one-hour course would not fit a slot in their curricula and that they would prefer to work on the project without paying for an extra credit. Thus, there are no engineering credits given for the spring course. Students may take the spring course without going to Belize in the summer, but they may not register for the summer courses in Belize without haven taken the spring course.

In the spring, there are 74 students registered for the course with 12 engineering students registered (one engineering student is working with the Agriculture team). 55 students have registered with the Study Abroad office to go to Belize in the summer. It should be noted that only those working on the engineering project can receive engineering credit; the engineering student working with the agriculture team will receive credit for an agriculture course. The cost of the summer program for a student is $3600 plus tuition. Honors students have generous scholarships that cover this cost, but the cost is a major barrier for other students who would like to participate.

The summer program and the Bella Vista project

The faculty and student teams will spend four weeks in May and June performing their projects in Belize. The Office of Study Abroad and International Exchange administers the summer program in cooperation with Peacework, which facilitates all in-country arrangements. During this time in Dangriga, the collaborative learning process begun in the spring semester will continue. Faculty and students from different disciplines will meet regularly to discuss the progress of their projects, relate their work to the broader issues of Belizean culture and service learning introduced in the spring, and collectively address issues arising from their efforts.

The engineering project faces several additional challenges. First, the village of Bella Vista is an hour drive from the project headquarters in Dangriga, which presents a logistical challenge. The team may need to stay out in Bella Vista during the week and return to Dangriga on the weekends. Secondly, although Belize is an English-speaking country, Bella Vista is Spanish-speaking. A few of the students on the engineering project team are fluent Spanish speakers and their tasks include evaluating Spanish health education materials and/or translating English materials into Spanish. Thirdly, any proposed solution to their health problems that requires construction, such as improvement to their water system, will require the raising of funds.

The solution to Bella Vista's health problems is not obvious and it will be up to the team during the spring to come up with solutions and plan their project. The village has a drilled well and a water tower with distribution to about half of the homes in the town. The water supply is very limited however and most people, even if they are connected to the system, get most their water from shallow dug wells. Toilets drain to septic tanks with no bottoms and no drainfield. Because the groundwater is only a foot or two deep, the nearby wells are undoubtedly contaminated. And when it rains the village with its flat terrain has standing puddles of water that looks and smells like septage. Perhaps a combination of hygiene education and water system improvement will help. Economic analysis will be required to find a way to make the

system affordable and economically sustainable and to get more houses connected to the system without angering the residents who've already paid their own money to be connected.

In addition to Bella Vista, we've also identified a few other projects that we may undertake if we have enough time and team members. These include a clarifier for the water supply for another small village, and addressing drainage problems in Dangriga. Also, some of the engineering team members hope to have some participation in the projects of other teams.

Conclusions

As of this writing, the class has been underway for a month and we are filled with excitement and optimism. We believe the interdisciplinary model for service learning presented here is distinctive in its diversity. Service learning – the intentional combination of academic training with community service – is either well established or rapidly expanding on many college campuses. But most programs focus on one or two academic areas and draw their students from a narrow academic community. The intellectual breadth of our course provides a novel and exciting approach to community development, allowing our students to discover an integrated understanding of how developing societies work – that is, how history, language, natural resources, economics, physical infrastructure, educational institutions, community organizations, and social structures all interact and affect decisions about the best way to move a developing community forward. We're anxious to see how it works and to share what we've learned with others.

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