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# Integrating Environmentally Focused Experiential Learning into the Curriculum: An Interdisciplinary Case Study

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**INTEGRATING ENVIRONMENTALLY FOCUSED  
EXPERIENTIAL LEARNING INTO THE CURRICULUM:  
AN INTERDISCIPLINARY CASE STUDY<sup>1</sup>**

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**ABSTRACT**

This paper details the use of a local environmental issue as a case study for an interdisciplinary project in an Economics and an English course. Students in *The Economics of Social Issues* and two sections of *Honors Communications* were given the option to undertake an analysis of the environmental, economic, social, and health impacts of the proposed expansion of the Seaview Avenue industrial corridor in Bridgeport, Connecticut, for a local community group and a regional economic development group. The project and the study's results are described in detail. Finally, suggestions for utilizing local environmental issues as opportunities for experiential learning in a number of disciplines are provided.

**I. INTRODUCTION**

Experiential learning exists when students are afforded the opportunity to supplement academic coursework with active participation in experiences that are integrated into the curriculum. The goal of experiential learning is to provide an opportunity for students to enhance intellectual and personal growth, career awareness, and civic and social responsibility. One of the aims of experiential learning is to turn passive learners into active learners, as students grapple with real life issues related to their course work. While often providing meaningful service to the local community, the students also learn about citizenship and social responsibility.

There is ample evidence which suggests that many students benefit from these opportunities and our own experience supports this view. To provide interested students with the opportunity to pursue a more active learning experience, Sacred Heart University offers numerous experiential learning opportunities including internships and service learning in a variety of courses throughout many disciplines. During the fall 2000 term, some students in an economics class and two communications classes, opted to participate in an

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interdisciplinary, environmentally focused, service learning project. The evolution and results of this project are detailed below. We conclude with suggestions for incorporating environmentally focused experiential learning into a variety of disciplines.

## II. EVOLUTION OF THE PROJECT

### *The History of Sacred Heart University's Involvement in the Project*

During the spring of 1999, Don Shea, a member of Trashbusters, a Bridgeport community group, contacted the director of service learning at Sacred Heart University, to request assistance in evaluating the impact of the proposed expansion of a local road: the Seaview Avenue Industrial Corridor. She recommended contacting Dr. Bridget Lyons, professor of economics at the University. After several conversations with Mr. Shea, Dr. Lyons attended a public information meeting on the project where she met with members of Trashbusters and discussed what students might offer the group. Paul Timpanelli, President of the Bridgeport Regional Business Center (BRBC), was also at the meeting and offered to discuss the project and related experiential learning opportunities. Professor Lyons concluded that the project would provide an excellent service learning opportunity for a course under development, *The Economics of Social Issues*. The students could meet the request of a local community group while gaining practical experience analyzing the numerous and complex issues faced by cities seeking economic development.

Dr. Marion Calabrese, of the English department at Sacred Heart University, was also approached since so many of the issues involved communication. It was agreed that the Seaview Avenue Industrial Corridor would provide the basis for an interdisciplinary service learning project to be undertaken by students in Dr. Lyons' *Economics of Social Issues* course and Dr. Calabrese's *Honors Communications* courses during the Fall 2000 term. During the summer Dr. Lyons, Dr. Calabrese and Ms. Ralabate, an environmental consultant, met with Paul Timpanelli and Janice Martin of BRBC, and Don Shea of Trashbusters. It was agreed by all that SHU students could serve the community's needs by first, undertaking an independent analysis of the economic, environmental, and social implications of the proposed Seaview Avenue Industrial Corridor and second, developing a plan to disseminate the information gathered. The project's scope and parameters were developed over the summer and approved. In August, Bethany Tassone of Maguire Group (the firm retained to prepare the Environmental Assessment and engineering study) contacted Dr. Lyons and offered to meet with the students as well.

*The Seaview Avenue Industrial Corridor*

The City of Bridgeport, Connecticut, adopted a Strategic Plan in 1996 which specified economic development goals for the city over a 20 year period. Two important goals of the plan were to develop 20,000 job opportunities over the 20 year period and to grow the tax base. The strategic plan led to a development plan based on a strategy of downtown revitalization, neighborhood reinvestment, waterfront recapture, and industrial recovery. The city believes that one of the most significant growth opportunities lies in the Lake Success Project. This project is planned for a 450 acre site, located primarily in Bridgeport with about 75 acres in Stratford, which is owned by DuPont Corporation. The site was used for years as an ammunition testing site and is now undergoing environmental cleanup. Upon completion of the cleanup, DuPont claims it will develop a low-density corporate campus park.

In order to maximize the development appeal of the site, the city believes that access must be improved since currently the only access is through existing residential neighborhoods. Thus the city has proposed the Seaview Avenue Industrial Corridor Project, an improved roadway aimed at providing convenient access from the recently constructed I-95 Interchange at exit 29 to Lake Success. The city expects that the project will also increase retention opportunities for businesses south of the site and improve development opportunities along the two-mile corridor. The roadway improvement is expected to cost about \$125 million.

At this time, the Maguire Group is conducting preliminary engineering studies and environmental assessments. The firm plans to analyze the project and alternatives during the summer and fall of 2000. Additionally, it will publish and distribute the environmental assessment in late spring 2001 for public comment in summer 2001.

*The Parameters of the Study*

It was concluded that an economic analysis of the proposed Seaview Avenue Industrial Corridor should be conducted to identify potential benefits and costs to both public and private parties. The economic evaluation of any public policy initiative should include two components: an assessment of the costs and benefits of the proposal and consideration of how such costs and benefits would be allocated. The estimation of costs and benefits of a proposal includes measuring both the private and social costs and benefits. Social benefits include any improvements in social welfare, while social costs refer to reductions in social welfare. Indeed, the expected net impact on social welfare is the primary factor analyzed in most public policy debates. Private costs and benefits refer to reductions and improvements in the welfare of individuals or firms. Such costs and benefits are also important to analyze because they impact

the net change in social welfare. Further, if the policy initiative involves corporate participation, the level of net private sector benefit will determine whether or not firm participation is expected to be profitable, and therefore likely. It is also necessary to consider how the expected social and private costs and benefits will be allocated since this will determine the impact of the policy, the sources and level of support and opposition, and the political viability of the proposal.

The Seaview Avenue Corridor proposal involves potential benefits and costs which might result from economic development, environmental, health and/or social factors.

Drs. Lyons and Calabrese decided that students undertaking the project evaluation would conduct an analysis that would include the following components:

1. Students identify the general areas of potential impact.
2. Each student selects an area of primary interest (economic development, environment, health, community or environmental justice). Teams of 2-4 students are formed.
3. Teams identify and research specific benefits and costs in the selected area arising from the proposed corridor
4. On the basis of potential benefits and costs, teams develop recommendations aimed at maximizing benefits while minimizing costs
5. Teams develop a plan to disseminate information from the study
6. The research and recommendations are incorporated into a written proposal and *PowerPoint* presentation
7. Teams present result to Trashbusters and BRBC

In order to develop a service learning project which could be completed in the confines of a 15 week semester, the first and third steps were begun during the summer.

### **III. RESULTS OF THE STUDY AND CONCLUSIONS**

The Seaview Ave project is typical of environmental issues faced by all communities. As such, it provides an illustration of how such issues can be used to supplement more traditional learning. Local environmental issues can be utilized, we believe quite successfully, in many courses such as biology, economics, sociology, political science, health care, and media studies.

The Seaview Ave. project was a success from which not only the students, but also the faculty, learned much. For example, student selection/election might have taken another form and it would have been helpful if either the students were in both classes or if the classes had met at the same time. The

economics students met in the evening and the communications classes met at 2 different times during the day. The 1<sup>st</sup> semester freshman (though communications honors program students), who elected to participate in the project, often found it difficult to attend the economics class and/or the community meetings due to lack of transportation or evening responsibilities such as work and/or extra-curricular activities to which they were previously committed. Add this to the fact that the Dr. Calabrese was dealing with health problems which prevented her from escorting them to these meetings, and some students felt "at sea". However, it did give them a taste of "real world" problems and the efforts needed to solve them. This was not a textbook case study solved at the end of the chapter. Additionally, it gave the self-starters opportunities to help the groups take shape and all learned to work as a team and share responsibilities. Furthermore, student groups were able to appreciate the links between theory and practice. Often they found themselves creating a "Plan B". Sometimes they found there might not *be* a solution...at least not one that they could develop in a one semester course!

The instructors' evaluation of the project produced additional findings, which might be helpful for replicating this type of interdisciplinary undertaking. Since time often proved to be problematic, it might be more realistic to offer this sort of "large-scale" project as a one year (fall/spring) course, rather than in its current one semester time frame. Unfortunately for us, the real world doesn't adhere to the 13 week semester model. Furthermore, this would allow students to be a part of the planning stages, something not possible here. Students might opt for a 4<sup>th</sup> credit in order to stay committed to the project for more than one semester. Follow-up internship(s) might be helpful so that students could continue to grapple with life-time issues of a community.

Hopefully, such a project would continue to break down town-gown barriers, illuminate issues common to several disciplines, build students' resumes and give students career awareness which they might not see clearly were they not out in the community.

As with many, if not all service learning projects, the instructors find their work load is heavier. Coordination of multiple student groups and myriad groups of community activists, residents, city officials and other stakeholders can be daunting. Moreover, the project may not work within the time frame originally planned. And, there is always the possibility that even with the best intentions, cooperation and coordination of all parties...we might not be able to deliver! There might not *be* an answer! That might be one of the best lessons: this is what life is about.

Student observations at the end of the course were varied, but even with the frustration (primarily on the part of the freshman communication students) they felt the work was worth the effort. Almost all of the economics students cited the project as the most worthwhile component of the course. Some students

opted to continue working on the project in the spring to edit further and deliver the results to the community. Freshmen communication students learned early on that real-life research is "messy", but rewarding. It was also interesting to see that while the economics students saw real promise in the Seaview Avenue Industrial Corridor, especially when combined with the development of the Lake Success area as a corporate park, the communications students felt that health and ecology issues didn't justify the changes for the projected for the Bridgeport community. The interdisciplinary nature of this endeavor gave first semester freshman communication and veteran economics students an opportunity to grapple with real world issues in two communities: Bridgeport and Sacred Heart University. They are richer, we believe, for the experience.