# Serving the Community Through "Service Learning" Approach: A Case of Integration

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# INTRODUCTION

The basis of service learning is experiential education, an aspect of education with a significant body of attendant scholarship available (Stanton, 1991). Experiential learning has its intellectual origins in Kurt Lewinís work in social psychology in the 1940s. Experiential learning provides one dimension of cognitive development or one of the ways in which we come to know things (Cohen, 1994).

In spite of its increasingly widespread use and acceptance, experiential learning has its critics. Some see it as gimmicky, more concerned with technique and process than content and substance. Experiential learning theory offers something more substantial and eduring. "It offers the foundation for an approach to education and learning as a lifelong process that is soundly based in intellectual traditions" (Kolb, 1984). The experiential learning model possesses a framework for examining and strengthening the critical linkages among education, work and personal development. It offers a system that emphasizes the critical linkages that can be developed between the classroom and the "real world" with the experiential learning methods. It pictures the workplace as a learning environment that can enhance and supplement formal education and can foster personal development through meaningful work and career development opportunities. And it stresses the role of formal education in lifelong learning and the development of individuals to their full potential as citizens, family members and human beings.

Service learning is a "particular form of experiential education, one that emphasizes for students the accomplishment of tasks which meet human needs in combination with conscious educational growth" (Luce, 1988). It has been suggested that service-learning may constitute a shift in educational paradigm (Liu, 1995). The National and Community Service Act of 1990 defines service learning with a set of four criteria: First, under which students learn and develop through active participation in thoughtfully organized service experiences that meet actual community needs and that are coordinated in collaboration with the school and community. Second, that is integrated into the studentsí academic curriculum or structured time for a student to think, talk or write about what the student did and saw during the actual service activity. Third, that provides the students with the opportunities to use newly acquired skills and knowledge in real-life situations in their own communities. Fourth, that enhances what is taught in school to extend student learning beyond the classroom and into the community and help to foster the development of a sense of caring for others.

It has been suggested that service learning is a pedagogy that is distinctively relational - a way of teaching and learning that narrows the gap between abstraction and circumstance, between theory and practice between knowing and doing. It envisions teachers and students as related participants in a process of discourse. Thus,

developing and exploring the relationships between the very concepts, activities, persons and institutions is a precondition of learning (Cohen, 1994). In its effort to promote learning through communal processes of reflection, service learning requires community. In its effort to bring unconventional voices into the discourse of academia, service learning embraces diversity. In its effort to close the divide between knowledge and action, service learning insists on engagement (Liu, 1995). Service-learning is a teaching methodology that enriches instruction by providing thoughtfully designed opportunities for students to use their skills and knowledge in service to and with the community. The community service serves as the vehicle for the achievement of specific academic goals and objectives. Service learning provides structured time for students to reflect on their service and learning experiences through a mix of writing, reading, speaking, listening, and creating in small and large groups and individual work. It fosters the development of those "intangibles"- empathy, personal values, beliefs, awareness, selfesteem, self-confidence, social-responsibility, and helps to foster a sense of caring for other. Several studies concluded that students involved in service-learning were significantly more likely than others in the same class to report that they had performed up to their potential in the course, had learned to apply principles from the course to new situations and had developed a greater awareness of social problems (Markus et al. 1993) (Cohen et al. 1994)

Service learning methodology has been integrated with an architectural course that contains design and technical skills. The course originally focused on the investigation of different passive solar technologies to provide means to conserve energy and utilize computer simulation to predict passive housing performance. This paper discusses the change in pedagogy in teaching the course that evolved from this integration. This change was primarily affected by the modification made to the course to meet the objective of integrating community service.

### **OVERVIEW**

As described earlier, the project involved modifying a graduate-level architectural course to incorporate elements of community service learning. The modified course allowed students to work with a non-profit community development corporation working in the Detroit Federal Empowerment Zone, to design single family housing units that are energy efficient, offer low maintenance requirements and foster the efficient use of land. The goal was for students involved in the class to gain strong academic understanding of issues related to energy conservation and sustainable building material, while being provided with a unique opportunity to work with the community and to put their knowledge into use in the "real world." The project had several objectives. These include: develop, using

computer modeling techniques, innovative forms of urban housing; research and propose a way that encourages efficient use of land, energy and sustainable building materials; work closely with the community to ensure that their needs and financial constraints are met; develop a design materials and construction guidelines report for the community and participate in reflection exercises that allow students an opportunity to discuss their reactions and experience working with a client.

The class undertook several activities. These include: student participation in lecture sessions on energy efficient design techniques and the role of computer modeling in assessing the energy efficiency of housing designs, review literature on sustainable materials, meet frequently and form a highly participatory relationship with the client, maintain a journal and participate actively in reflection sessions, develop a series of alternative design proposals for urban housing which include not only drawings and models but also model energy usage using state of the art computer technology, conduct a study on the use of energy conservation and sustainable materials in urban housing and organize design critique sessions with the community that allow the community to fully participle in the design process.

# **COMMUNITY NEEDS**

Assessing the needs of the community and matching these needs with what the course can provide as a resource was an important step for the development of the course and its preparation. With the aid of a community development coordinator, several community groups and projects that could be used as the basis for a community service learning component were identified. One of these projects that best matched what the course and students could offer was the Mack-Alter project.

The Mack-Alter project is a proposed 700 single and multifamily housing unit development that is proposed to be built in Detroit's Federal Empowerment Zone. The area within the Empowerment Zone is characterized by high levels of poverty, unemployment and dilapidated housing. Forty-seven percent to of the residents in the Empowerment Zone live in poverty, the unemployment rate is 28.9% and the median family income is \$13.684. The area has a large number of vacant residential parcels dispersed throughout the area, and 17.5% of the remaining housing stock is vacant. Given these demographics, the Mack Alter Project focus is on developing affordable housing that is inexpensive for low income homeowners to purchase, maintain and heat.

A non-profit community organization working with the Mack-Alter project was identified as the client for the developed course. This organization is a consortium composite of eleven community and business associations. One of the major criteria for choosing to work with this organization is that the staff of the organization is skilled at organizing the community and gaining community input into decisions. This is a vital component for establishing a partner-ship between the community and the school which will allow the interaction needed between the class and the community. The role of the community partner was to introduce students to the community in terms of the physical and social environment, present information to the students describing financial constraints for the development, and actively participate in design critiques and feedback sessions with the students.

# PROCESS AND INVOLVEMENT

The course process of development and involvement in the community that facilitated the service learning component integration was conducted using three phases of implementation. The first phase is the knowledge and skills development. The second phase is the engagement phase. The third phase is the implementation phase. The first phase was also used for introducing students to the community. The second and third phases contained reflection components.

The first phase of the course was conducted in a lecture format coupled with lab sessions to allow students to learn about passive solar design theory and its implementation. During this time, a series of exercises and projects were given that allowed the students to investigate specific problems related to housing and solar energy. These problems were designed to allow the students to learn passive solar techniques and the way they can be utilized to help the nonprofit organization and the community they serve. Meetings with the community organization were also established for students to become familiar with the community and its actual needs. The goal of this stage was to allow the students to obtain the knowledge and skills needed for them to be able to solve community problems. This phase was envisioned to be essential as a preparation stage from both technical and social perspectives. At the end of this stage students were given a pre-designed house and were asked to investigate its thermal behavior to evaluate its energy conservation. This was done for five different lots within the site proposed by the organization utilizing the computer models learned in the class.

The second stage was an engagement and reflection stage where students met frequently with the client/community organization and began the process of applying their knowledge and skills. Their learning at this stage was informed from two components, the class room and the application through the interaction with the community. Within this stage, students were asked to design a house that meets the community needs and investigate different measures that will allow the given house to conserve more energy utilizing passive solar techniques. Students were able, at this stage, to thermally simulate their new designs and predict the energy savings projected for their designs. An interim review was held where students met with the community representatives and presented their designs and initial recommendations. In the review, students demonstrated among other things, savings of 25% and higher in energy efficiency compared to current typical new construction based on the techniques used. The feedback from the review was then used to enhance the way students could help the organization in the final stage.

The final stage was a stage of implementation and detailing. Students were asked to implement the knowledge and skills gained in the class as well as the feedback from the client to provided the final sets of design and reports. A final presentation was made for the community and all student projects were compiled and given to the organization as guidelines for energy saving techniques utilizing solar energy to be used as a reference to lower energy cost in their proposed housing projects.

The community organization involved had significant experience in rehabilitating single family housing, but had none in the new construction of single or multi-family units. The community organization used the drawings and models developed by the students as they approached state and local housing authorities and financial institutions to apply for loans and grants to finance the project. The students developed design, material and construction reports that will assist the organization as they undertake other housing development efforts. The report is currently used by the staff in community meetings as they continue the Mack Alter Project.

# EXPERIENCE OUTCOME AS A PEDAGOGICAL ISSUE

Community service, in itself, can be meaningful, pointless, or harmful. Through reflection as well as a survey conducted before and after the course and focus group outcome, the course showed that the academic experience was influenced by the service learning experience positively. Reflection is the key to getting meaning from the service experience. Reflection is a process by which service-learners think critically about their experiences. It can happen through writing, speaking, listening, and reading about the service experiences. Focus groups are a qualitative methodology that has been used in program development and evaluation (Krueger, 1988)

and academically oriented qualitative research (Morgan, 1998). They have the potential to be applied to the service learning field to achieve various objectives including program evaluation (Schmiede, 1995)

The outcome of the course showed that students were able to apply the knowledge gained in the classroom to a real world problem. In addition, their work was motivated by helping the community. Students were able to learn how to develop a relationship with a client which allowed the project to be far more interactive and participatory than traditional architectural courses that occasionally might have a client. A survey of the students showed that their sense of civic responsibly was fostered by working with the community, viewing its needs and developing a close relationship with the community.

The students that participated in this course were plunged into an environment which differs substantially from most of their traditional classroom experiences. These differences include the nature of the tasks they are asked to perform, the social relationships with other service providers and clients, the students role as service providers, the way in which knowledge is sought and applied and the nature of the feedback students receive for their efforts. Tasks performed to meet community needs required greater flexibility than those typically faced in the classroom and they required understanding of the task and the context of an organization. Student involvement in the community took on new roles including learning collegial relationships with agency personnel, setting their own goals and giving as well as receiving feedback. The role of the faculty is also expanded from a facilitator of learning to liaison between campus and community.

Although there seems to be evidence that suggests a linkage between the positive impact on student learning as a result of the service component integrated into the course, most of what we know about the effectiveness of the program is based on student perceptions of their experiences. Students within the same program might not necessarily have the same quality experience. Part of this difference will stem from the fact that students bring their own unique background to the experience. On the other hand, it is evident that this approach of teaching identifies new roles for students and faculty alike that require more investigation and careful study to asses their full potential use and impact on the architecture education.

# **CONCLUSIONS**

The possibility of working with and for a lively and active community presented an exceptional opportunity for students to learn and serve the community. Utilizing the service learning approach in the redesign of the described course offered additional dimensions including a social one which affected the students learning. Service learning proved to meet students' varied academic and learning needs and developed skills and abilities in problem-

solving, decision making, critical analysis, group process, and team building. Service-learning also proved to build new partnerships between the school and the community that supports student achievement and increases community involvement. Engaging students in identifying community needs and helping them design service projects to meet these needs while enhancing student achievement allowed the course to be an effective one. While it is difficult to generalize about its effectiveness regarding architecture education, this paper illustrates that integrating service learning into a course can provide a powerful and rich learning environment for students and the community while preserving the learning content of the course.

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