Service-Learning in Disaster Recovery: Rebuilding the Mississippi Gulf Coast

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Abstract

This article describes a course in the City and Regional Planning program at the Ohio State University. Its overarching goal was to offer service-learning by providing students with an opportunity to apply what they learned in the classroom by meeting community needs following Hurricane Katrina and to reflect on their experiences through journaling. This article describes the theoretical basis for the course and its structural features, then presents evidence of the impact on both students and the communities served. Attention is focused on student responses to service-learning, the studio experience, and both intended and unintended outcomes. The course includes two unique features, the integration of professionals into the role of educators and a heavy reliance on technology. Recommendations based on feedback from students and the communities are offered to help other institutions implement service-learning courses involving projects at a distance.

Introduction

With an increasing number of natural disasters and the level of devastation they cause, there is an increasing need for hazard mitigation planning and disaster recovery planning. The traditional academic training for city and regional planners rarely includes preparation for the challenges of recovering from hurricanes, tornados, and other natural disasters. While some universities offer courses on disaster planning, it is difficult for students to understand the reality of what happens to a community following a major disaster unless they actually experience its aftermath.

One of the challenges of education is making connections between the classroom and the real world. Service-learning, a pedagogy that fosters and reinforces a service ethic and helps students develop a sense of civic responsibility and social justice, is one method that can strengthen the relationship between the classroom and affected communities. This structured learning experience combines community service with explicit learning objectives, preparation, and reflection (Dewey 1963; Kolb 1984). Service-learning activities and resulting projects are guided by the
outcomes of needs assessments in which the capacities of associations and institutions are identified and mobilized (Kretzmann and McKnight 1993). The combination of service and learning transforms the information presented in classroom settings into knowledge and skills that students can use in the communities in which they work and helps sustain students’ commitment to making a difference (Eyler, Giles, and Braxton 1997). However, there are many orientations to service-learning, ranging from charitable to social justice ends (Kahne and Westheimer 1996; Morton 1995). Opportunities for academic growth derive from mutually beneficial service and learning partnerships within culturally diverse and/or low-income communities (Radest 1993; Rhoads 1997). The result of participating in service-learning can be positive attitudes toward one’s community, greater involvement in politics, and instilled values of citizenship (Ahmad-Llewellyn 2003; Kirlin 2002; Hunter and Brisbin 2000). City and regional planning programs across the country focus on promoting civic commitment through their educational experiences.

This article describes a service-learning experience of city and regional planning students at the Ohio State University who engaged in education and outreach related to the recovery of communities following Hurricane Katrina. This course was unique because it incorporated extensive use of both technology and volunteer professional planners as team leaders throughout the course. This case presents an example of how responding to a natural disaster by providing needed aid to affected communities can fulfill learning objectives.

Background on Hurricane Katrina and the Affected Communities

Hurricane Katrina was the United States’ largest natural disaster, with winds of more than 130 miles per hour and world-record, thirty-five-foot-high tidal waves. The hurricane affected communities from Alabama to Texas. Harrison County is the most populous county on the Mississippi coast, and the impact on it was tremendous. The immediate impacts of Hurricane Katrina were the death of more than two hundred residents, an unemployment rate of more than 25 percent, and the total loss of 29,970 housing units (BeyondKatrina.com 2006).

While Harrison County has cities of significant size, it also contains a number of small, unincorporated communities that, in the aftermath of Hurricane Katrina, had been largely neglected
by volunteer groups and the state’s planning process. Harrison County partnered with Ohio State University’s City and Regional Planning program to provide assistance to unincorporated communities in the county. County officials selected DeLisle and Saucier, Mississippi, as the locations for the students’ community planning efforts. DeLisle was selected due to its massive loss of housing (90 percent of which was a complete loss). Saucier was selected because it is anticipated to receive a significant influx of population as people flee the coast for areas further inland. Both communities are rural in character.

Educational Principles of the City and Regional Planning Program

The goal of the City and Regional Planning program at the Ohio State University is to provide hands-on experience in planning in order to produce competent and community-oriented professional planners. To achieve this goal, each student is required to complete at least one studio experience. Each studio must include a real-world client, engage citizens in a planning process, and include recommendations to a community organization on how to achieve its planning goals. Students can select from a wide variety of studios based on their interests, such as environmental planning, international planning, and policy planning.

Within the course itself the objectives included allowing students to (1) gain an understanding of postdisaster planning, (2) understand the key elements of area plans and zoning ordinances, (3) be able to communicate in a collaborative work team, and (4) improve their writing and research skills. All of these objectives further the goal of providing assistance to communities in need of long-range planning following Hurricane Katrina.

Structure of the Course

Immediately following Hurricane Katrina, the instructor approached the zoning administrator for Harrison County, Mississippi, to determine what, if any, assistance Ohio State University’s City and Regional Planning program could provide. The administrator’s response was to accept whatever was possible, asking that it get there as quickly as possible. Based on this initial phone conversation, the instructor developed a project proposal that was approved by the zoning administrator and the Board of Supervisors for Harrison County, Mississippi. The objectives of the proposal were to develop community plans for two unincorporated rural
communities and provide technical assistance in revising the zoning code to meet the changing conditions in the county.

The next critical step was to identify funding for the project. While many students were willing to travel at their own expense, the instructor did not wish to limit enrollment to those who could afford to participate. Fortunately, many units within the university were looking for ways to assist affected communities. The university’s Service-Learning Initiative, Office of University Outreach and Engagement, College of Engineering, and School of Architecture provided funds to enable the students to travel to Mississippi.

**Role of Professionals:** Given the scope and importance of the project, the instructor elected to incorporate professional planners into the course. The instructor sent a request for qualifications to professional planners in Ohio to gauge interest in volunteering for the project at their own expense. More than twenty professionals expressed an interest in volunteering. The instructor selected three professionals with significant professional experience working in rural areas or with county governments. Interestingly, none of the team leaders selected was physically located near Ohio State University.

Once the team leaders were selected, each one was paired with a project and assigned student team members. Each team had four students and one team leader, for a total of twelve students in three teams.

The team leaders were responsible for participating in the fieldwork, directly overseeing all of the students’ work, and providing commentary and advice along the way. The professional experiences of these planners provided examples of how similar problems had been solved in other communities. The team leaders brought experience that the instructor lacked and added to the quality of the overall project. The professionals were explicitly told that their role was not to write the plan or do the work, but instead to help the students find resources and to provide the critical feedback needed to make the students’ work a success. This unique class arrangement was highly successful, providing the students with feedback not just from the instructor but from a highly skilled professional as well. For the instructor, the team leaders
were invaluable as a resource for brainstorming and to help solve problems the students were experiencing. In the end, these professionals volunteered hundreds of hours of their time, working with the students throughout the project.

**Course meetings and fieldwork:** The course met once at the end of the fall quarter to discuss the project and assign tasks. The students then worked over the winter break collecting background information and preparing for the trip. During this time they were responsible for reading a variety of articles and books to help them understand appropriate planning approaches and the impacts of the hurricane (Burby et al. 1999; Durham and Suiter 1991; Duany and Talen 2002; Jones 1990; Larson 2000; Lerable 1995; May 1985; Schwab 2005; Schwab et al. 1998; Wilkinson 2005).

The students spent December 31, 2005, through January 7, 2006, in Mississippi. During this period they worked at least fourteen hours per day to maximize their field experience. At the end of each day the class met as a whole to discuss the day’s progress and to reflect on the knowledge gained.

Upon their return from the fieldwork, the students met once per week over the course of the quarter. The in-class experience focused on managing the project, sharing information, and making decisions about how to achieve the goals of each community. The team leaders provided feedback on the students’ progress on a weekly basis, and they came to Columbus to spend a weekend day working with the students one-on-one in the middle of the quarter.

The course integrated a significant public review component. In the last week of February, professional planners and faculty from multiple disciplines were invited to review the students’ progress and provide critical feedback. The following week, the zoning administrator and a member of the Board of Supervisors from Harrison County, Mississippi, visited Ohio State University to review the students’ work. At the same time, draft copies of the plans were provided to the communities for feedback.

At the end of the winter quarter students had the option of traveling back to Mississippi at their own expense to host town hall meetings with the communities to share the draft plans. Ten of the twelve students returned. They felt so tied to the project that they wanted to see it through to the finish. The experience of presenting the plan concepts to the communities was valuable; the team got the opportunity to see how the residents reacted to the various proposals, while the residents were able to vote on the
proposals they most wanted to support. Afterward, five of the students volunteered to continue working on the plans over the first part of the following quarter to finalize the changes that came out of the town hall meetings.

**Journals:** Each student kept a journal in which they were required to write daily during fieldwork and weekly during the rest of the quarter. Each day or week the students were provided with reflective questions asking them to focus on what they were experiencing and learning. The questions were developed in collaboration with the director of the university Service-Learning Initiative. Initially, the students made relatively factual journal entries, simply describing what they had learned. However, during their field experience the entries changed dramatically, describing in intense detail their emotional reactions to what they had seen and how what they were learning was changing their views of the profession and what they believed were appropriate changes for their assigned community.

**Technology in the classroom:** Technology was an essential element of this service-learning course. Given the distance of the students from the project site and the team leaders from the students, technology was needed to bridge the distance.

**Internal communications:** In order to manage the course, the Web-based project management software Basecamp was utilized. Basecamp allowed team members, team leaders, the instructor, and county officials to post messages, upload files, create to-do lists, post deadlines, and assign tasks to individual team members. The messaging and file features were the most critical, as the course generated thousands of e-mail messages. The system archived all of the messages, which allowed for easy searching. Responses to e-mails went automatically back to everyone who was on the original recipient list. To send a message, the author simply typed it and selected to whom to send it. This meant that no one had to remember e-mail addresses. The best feature was that students did not have to worry about their mailboxes becoming clogged with attachments. The system provided a direct link to each attachment, which was stored on the Web site.

Each team had a master document from which everyone worked. Students simply sent notes to check out their plans for a couple of hours at a time and then reuploaded the latest versions.
Each document went through approximately one hundred drafts. This system made it easy to track which file was the latest version.

**External communications:** Not only were the students far from the communities, many of the citizens had been displaced as well and were living at a distance from their communities. With 90 percent of the housing in DeLisle destroyed, many residents were temporarily living elsewhere. To help reach out to this dispersed community, several communication mechanisms were developed. The students developed a newsletter, *The Harrison County Planner*, which provided updates to the communities on the planning throughout the county. An 800 number was established to allow those away from Harrison County to leave messages with the planning team (http://www.instantaudio.com). The phone system was Web based, which allowed team members to listen to the phone messages. A Web-based discussion forum was developed to allow community members to talk to the team and to the rest of the community (http://home.learningtimes.org/ms). Students and citizens exchanged questions and answers through the discussion forum.

**Results**

The outcome of the course was tremendous. The class was able to achieve the course objectives, some more successfully than others. The students clearly were able to understand post-disaster planning and the key elements of area plans and zoning ordinances. The students did learn how to communicate in a collaborative work team; however, this was a serious challenge given the time constraints, distance of the community, and emotional conditions of the students and citizens. This challenge is addressed further in the discussion section of this article. Students were also able to improve their writing and research skills. It came as a surprise to many of the students that their writing and research skills were not at the level expected for this course. They were used to receiving feedback on papers, but not at the line-by-line level that is necessary for a professional plan. Students experienced a high level of stress as they were continually asked to go back and find more information about an item they were responsible for researching. The greatest challenge in writing was learning that it was necessary to conduct a tremendous amount of research that would not ultimately be placed in the plan. The students had to become knowledgeable about the conditions and then extract the
most relevant information for inclusion in the plan. The result was a crash course in professional research and writing.

By the end of the course the teams successfully created two community plans and a set of regulatory policies to aid in rebuilding. The students had feared that their hard work would end up on a shelf; they had no idea how strongly the communities would embrace their plans.

**Results in DeLisle:** As a result of the plan, the community of DeLisle was able to successfully work with a proposed casino to ensure that its design minimized the impact on this rural community. Additionally, the team was able to match a property owner who owned the most beautiful and important piece of property in the community (an eight-acre parcel with live oak trees that are hundreds of years old at the gateway to the community along a bayou) with a land trust that is currently working with the owner to purchase the property for permanent conservation (see figure 1). This partnership was made possible because the property owner attended a town hall meeting and learned about the possibility of selling his land for conservation. Prior to the meeting he was considering selling it to a condominium developer.

**Results in Saucier:** The community of Saucier has made even more progress. In the year since the completion of its plan the community...
has created the Saucier Improvement Association (SIA), whose sole mission is to implement the community plan. The SIA has worked with the Mississippi Department of Transportation to change a highway plan to minimize the impact on the community, established a farmer’s market, worked with the regional water/wastewater authority to determine the feasibility of locating sewers in the area, obtained a grant to prepare a parks and recreation plan, and worked with the YMCA to develop a facility in the community, among many other items. One of the property owners in the town center was so excited about the planning process that he offered his twenty-five acres to be used for the new town center. Design plans for the site have been developed. During fall 2006, Andrews University assisted Saucier in developing a detailed design plan for the town center area. Property owners are working with the county to implement regulations that would allow the proposed development to occur. In 2000 Saucier voted down zoning because they associated the concept with communism. However, after experiencing the power of planning they have embraced the concepts of planning and zoning and are working together as a community to achieve the goals that they set with the assistance of their student team.

Response from the communities: The response from both communities was much more favorable than expected. Although some citizens offered considerable initial resistance, in the end the
students opened the hearts of the community members. A citizen arrived before the beginning of one town hall meeting and was overheard talking on his cell phone, telling a friend that he’d better get down there because there were people from up north here to tell them what to do and you know that means trouble. While this rocky start was not what the students wanted, by the end of the meeting the citizens were laughing and having fun while planning their future. After facilitating a small group discussion at a town hall meeting, one of the students received hugs and invitations to come over to a resident’s FEMA trailer for cookies. The residents were very appreciative of the efforts the students made to help their communities. After the presentation of the plans, the students received letters of thanks with comments such as:

“Thank you for all of the work that you and the students have put forth to help us look at our rural communities.”

“You all have done a really fine job and a great public service to all of us.”

“WOW!!!!!!!!”

Discussion of Lessons Learned and Conclusion

The planning accreditation board emphasizes the need for service-learning through a studio experience for all planning students, but the quality of this experience varies widely. Approaches to teaching and learning must integrate community-based experiences and problem-based learning. This article presents an innovative form of community-based education. The course is a form of community-campus partnership, allowing a national disaster to become a service-learning opportunity while serving the needs of the communities. The lessons learned about how technology and professionals can benefit students, faculty, and a community can be utilized on any university campus and in many types of service-learning projects. While in most cases faculty engage in service-learning projects that are close to campus, it is possible to engage in projects that are far away. Our experience demonstrates that a variety of technology tools, such as Basecamp, toll-free numbers, and online discussion boards, can allow for internal communication with the client and external communication with community members. These technology tools make a major impact on the ability to successfully manage projects at a distance.
There are numerous challenges facing instructors who wish to offer community-based service-learning courses. The responsibility to a community requires extremely committed faculty and students. At the same time, the instructor has a responsibility to ensure that learning objectives are achieved. In this case, students learned from working in communities recovering from a catastrophic disaster and walking the communities through a real-world planning process. The result was increased interest in the project and a higher level of dedication. As an instructor, I have never seen students work so hard. An entire team could frequently be found online at 11:00 p.m. working on the project.

As a downside, the project was very intense and affected the students emotionally. The students raised concerns at the midterm that they were working too hard, yet when the instructor advised them to work less, no one slowed down. They felt so dedicated that they continued to sacrifice their time to the project. By the end of the quarter the students were completely physically drained.

In addition to physical exhaustion, the students were emotionally drained. A number of the students experienced bouts of crying and sadness. During the fieldwork the students were overwhelmed by the sight of people living in tents four months after the hurricane, the stories of survival, and the desperate situations of the community residents. Throughout the quarter the students doubted their ability to truly make a difference and the communities’ ability to implement the plans. When the immediate needs of citizens were so apparent, it was a challenge to get the students to think about five, ten, and twenty years down the road. Yet when the project was complete the students realized that they truly had made a difference in the communities.

Given the constantly changing conditions following Hurricane Katrina, the student projects required frequent adaptations and problem solving. Students found this aspect challenging. They felt as though every time they solved one problem, they had to solve a new one. This led the students to feel as though their projects were constantly changing targets. However, this frustration is typical in real-life situations. Even when a project’s scope is well defined, it is not uncommon for a community agency to request changes as new information is revealed or research yields unexpected results. In this case, these changes were amplified because the scope of work changed during the quarter.

Communication was a serious challenge. Even though the teams had established Web-based communication mechanisms,
when people are living in tents or halfway across the country it is not easy to stay in touch. Also, the communication and coordination of activities with county officials did not run as expected. During the first two months of the project the only way to communicate with the zoning administrator was by phone and fax. The building official’s office was not allowed to return long-distance phone calls due to budget cuts. This meant calling the office several times a day for a week before being able to reach the correct person. In one instance, a document needed to be approved by the zoning administrator before it went out; however, approval was requested on an official county holiday when the administrator was not able to go to work. The student responsible for the document was upset and couldn’t understand why the administrator couldn’t just check e-mail on his day off and approve the document. The instructor had to remind the student that FEMA trailers don’t come equipped with Internet access.

Students had to change their expectations to fit the new environment. The housing crisis in the county was severe. While conducting fieldwork, seventeen people were staying in a small house where cell phone and Internet service were not available. This is likely the longest time that the students had been without what they considered to be essential communication tools. It was a valuable lesson for them—they had to learn to make do with the resources available. Most documents had been washed away in the hurricane, so most information had to be collected through interviews with public officials and citizens. For students who relied primarily on the Internet for research, this was a valuable learning exercise.

Serious attention needs to be paid to culture shock, which the students in this course experienced in varying degrees. This reaction resulted from the conditions in the communities and moral and ethical differences. Most critically, the amount of time spent together in and out of the class led to strained interactions. The organization of the assignments into groups of four resulted in students spending a significant amount of time together. Under the stress of the project, students took frustration out on each other in instances of anger and animosity.

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Professional ethics and community morals were also critical to the learning process. The communities lacked a culture of planning and had values very different from those the students had learned about in school. As part of the town hall meetings, the students conducted electronic keypad polling to allow citizens to vote on which proposals they most supported. In attendance at the meeting were representatives from a state agency. One representative was quite interested in this new technology tool. He commented to the student that it seemed interesting, but asked if you could fix the voting by just showing the polling results that one wanted. This was stated in a perfectly serious tone. In another instance at the same meeting, a public official provided extra dots for a dot-voting exercise to one individual, allowing that person to vote multiple times. The students were appalled by these actions. In the debriefing following the meeting the class discussed the importance of professional ethics and where we learn our professional ethics.

While the relative lack of professional ethics was surprising to the students, the community values were an even bigger surprise. Prior to departure for the fieldwork, the instructor informed the students that this rural part of Mississippi had strong Christian values, with residents who were strong believers in property rights. The students didn’t fully understand what this meant until the second day on the ground. During a tour of one of the communities, the tour leader made several statements that surprised the students. One statement was that the community has a large number of churches but a large number of unchurched people, and how this was a serious community problem. Later in the tour one of the students asked how much the national forest in the area was used by the community for recreation. The response from the tour guide was that the community does not use the forest because that is where gays go to have sex. While the instructor better understood these values, even she was surprised when a community resident informed her that the community does not support affordable housing because they do not want sinners in their community and that people who work at the casinos on the coast are sinners. The class discussed these statements at length in order to better understand the core values that unite the community. This exposure to a culture that is different from their own was valuable in making them more conscientious planners. Too frequently students assume that the communities in which they are working share their values and morals.
Grading of the service-learning course was challenging. The journals involved personal opinion and thoughts that are challenging to grade. In their group work it was difficult to fully understand the individual contributions of each team member. As with any group assignment, there were those who went above and beyond and those who let others do some of the work for them. Clear structure and expectations for the teamwork are critical for a project with a significant level of out-of-class work.

This project challenged students in ways that they had not imagined when they entered the course. The students signed up for the course thinking they would be able to make a difference. They not only made a significant difference to the communities but were also able to learn both a wide array of new skills and how to adapt in changing environments. These skills are highly transferable from the classroom to the working world. The following quote from one of the students sums up the students’ experience.

I don’t know what to do. Early on I was afraid this studio would have no effect on the residents, like my other studio classes. The exercise has become more than academic; implementation is more than just a title for a page. I really don’t know how to talk to people about this now. This is great. I want to continue to follow what is going on down there. I’m sure we have all learned a few lessons to take out into the profession. Maybe I should “retire” now so to be sure to go out on a bang.²

For the instructor, the quarter was equally intense and often difficult because of the high level of involvement with each of the students and the administrative responsibilities of communicating with the citizens and administrative officials in Mississippi. That said, the experience was incredibly rewarding and resulted in long-term relationships with the officials in Harrison County. For example, one official with the Governor’s Office for Recovery and Rebuilding commented that the plans created by the students should serve as a model for regional planning across the Mississippi Gulf Coast.

The approaches used in this course could be integrated into any service-learning course addressing postdisaster recovery. The success of the initial project led to a $266,000 grant from the U.S. Department of Housing and Urban Development to continue the students’ work through 2008. During summer 2006 the second set of students began the process of creating plans for two new
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communities, which were completed in February 2007. The graduate students in this degree program will continue their ongoing visits to Harrison County until each community in the county has a rebuilding plan, with the next set of students beginning their work in the summer of 2007. To view the work created from this project, visit http://www.co.harrison.ms.us/departments/zoning/downloads.asp.

Endnotes
1. These letters are archived in the author’s office.
2. Excerpt from a student journal archived in the author’s office.

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**About the Author**

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