Educational Innovations through “Learn and Serve” Projects

Phyllis Sperling
Department of Architectural Technology
New York City Technical College

In the beginning of my career as an architecture instructor I had first to learn the rudiments: how to get a point across, how to organize material, how to make this material interesting and vital. Once I learned the basics, I was ready to pursue creative approaches to teaching. I learned that sessions with students were more productive when I organized the subject matter around problem-solving projects rather than by “chalk and talk” lecturing. I discovered that students absorbed things faster and more permanently when the assigned projects were “real” rather than theoretical.

Some of my assignments required that I follow strict course outlines that left little room to explore or innovate. In other courses, however, I was given a list of “learning objectives,” which meant that I had some latitude to figure out how best to teach the subject. For these courses, I tried to develop complex projects that met several criteria: to involve students in original research, to insure that I, too, learn and develop as a professional, and to provide a service to the community or to the architecture profession.

I was not alone in this pursuit. Over the years, some of my department colleagues had integrated community service projects into their coursework. When a large section of downtown Brooklyn adjacent to the college was being planned as the MetroTech Urban Revitalization Area, one of our instructors volunteered his site-planning class to design the “street furniture” -- lamp posts, parking and street signs, etc. Much of their design work was incorporated in the final streetscape. A more recent MetroTech project (integrated into a model-making course) involved the construction of models showing New York City’s “urban” gardens and vest pocket parks.

Another colleague offered the services of his class to the Bronx community surrounding Yankee Stadium; the City had cited the area for urban renewal, but an ad hoc community group objected that this plan would demolish their neighborhood. They chose to demonstrate to the city planning commission that most of the existing housing and commercial buildings could be rehabilitated without disrupting the neighborhood’s vitality. Working with the community group, our students constructed a model of a four block area that demonstrated how the plan could work. When the model was completed, the community scheduled a press conference which received a great deal of publicity. Photographs of the model, and our smiling students, appeared in all the city’s newspapers.

A few years ago, working with the New York City Fire Department, my design class researched and designed a new “state of the art” firehouse for downtown Brooklyn. This project piqued my students’ interests. We visited existing stations, interviewed firefighters and followed them around for many hours. We studied crisis response time, traffic patterns around the site, interior
air pollution, sleep deprivation, and shift scheduling. We debated sleeping arrangements, gender
discrimination, and that holiest relic, the fireman’s pole. Then each student designed a firehouse
for the designated site and presented the results to New York City Fire Commissioner Safir.
Models and drawings of the six most successful projects are still on exhibit in New York.

The longest commitment to our surrounding community was the Techniques project funded by a
Federal Government grant. It recognized three distinct needs: 1) Our students come from poor
homes and most of them have to work at least twenty hours per week while going to school. At
the time we applied for the grant, most of our working students had no architecture experience
and were stocking supermarket shelves. 2) Our first and second year students needed more
practical design experience and 3) the many small organizations serving Bedford-Stuyvesant
and Crown Heights neighborhoods could not afford the services of professional architects to
design their daycare centers and soup kitchens. We used the grant to fund an internship program
to provide course-release time for the faculty member running the project and to pay the students
for their design work. Aside from those projects, the students designed housing renovations and
adapted facilities for people with disabilities.

The Foundation for Long Term Care
Our most recent effort involved a Learn and Serve America grant, a federally-funded program
that encourages colleges to formally combine classroom learning with community volunteerism;
the student learns as he serves.

We were awarded the grant through the auspices of the Foundation for Long Term Care which
specifically encourages projects that help the elderly who live at home, so that they can remain at
home and not be forced into nursing homes. Typically the agency supports proposals that pair
students with elderly shut-ins. The students then meet in seminars with an instructor to compare
notes and experiences.

Because ours is an architecture program, our proposal had to take a different tack. We proposed
that each semester a design class volunteer its services to a community organization that serves
the elderly and needs a new or renovated facility. In the course of three years we designed

- an adult day-care facility for AIDS patients,
- two geriatric rehabilitation centers,
- an adult day-care facility for dementia patients,
- and a respite center for people with severe dementia.

For each of these projects the student had to research the problem, visit similar facilities, consult
with service providers, conduct an interview with an elderly person, survey the building site, and
then organize all of the information into a research document -- all of this BEFORE designing
the facility! Then the student designed the building, drew up the plans, built a model, and
presented his project to a panel of collected experts for a critique.

AIDS Adult Day-care Facility
For the day care facility for adults with AIDS, our first and most challenging project, we
combined two design classes and used the resources of two instructors, both of us architects.

What made our job difficult was that there were few prototypes for this kind of facility. After a
diligent search, we found and visited two existing centers. We had to familiarize ourselves with
the clientele that the facility was likely to serve, in this case HIV infected drug-abusers. To learn
about the disease, we spoke to a biochemist in search of a cure. We spoke to a social worker experienced in working with indigent, drug-addicted AIDS patients. Another guest speaker discussed the problems in managing an AIDS day-care service. In addition, our students were required to visit and survey the proposed site -- a floor of an abandoned tuberculosis hospital in Queens. Once the site was documented and the program fixed, the students began to plan the space.

Midway in the process we organized a “pin-up” to allow the students to present their unfinished plans and to receive mid-project feedback. We invited our clients, all the guest experts, and two architects experienced in designing health-related facilities. We learned whether our initial assumptions worked. In some cases they didn’t and the students had to return to their drawing boards (or their computers) and begin again. At the end of the semester we assembled all our consultants, as well as representatives from our granting agency, at a marathon six-hour session where our students presented their final designs.

Collaboration Course:
Currently I am involved in planning a collaborative course with the college’s Department of Human Services. As an experiment, my architectural design class will be combined with a gerontology class. Of course, this collaboration is the outgrowth of our work with the Foundation for Long Term Care. It also touches on my interest in the developing “alternative housing” for people who do not fit into the mother-father-kids family mold. For a long time I have been interested in designing housing for people who are not totally self-sufficient: the old and infirm, adults with severe leaning disabilities, teenage mothers and their children, but especially people with dementia, perhaps because of personal experience with family members afflicted with this horrible condition.

Although in the past I had worked with students to design projects for the homeless and for teen mothers, I did not feel I knew enough to tackle the problems of housing people with dementia. Architects generally agree that research and study must precede the design of most specialized buildings, but in the case of dementia patients I felt I needed especially in-depth exposure to the disease and its impact. If the designed facility is to be innovative and effective in providing good quality-of-life, we designers must work with Alzheimer researchers, social workers, the clients themselves and their care providers. We need a more thorough understanding of the health and psychological issues that confront our clients.

Therefore, a collaborative course. The gerontology instructor and our invited guest lecturers will help our combined class understand the issues surrounding dementia. Together, with our students, we plan to study its causes and deficits. In addition to consulting with dementia professionals, we will visit existing facilities to familiarize ourselves with the various models of care currently being provided.

The students will be organized into research teams, each team consisting of both Architecture and Human Services people. Each team will be responsible for creating a theoretical model for housing people with dementia. Among the issues to be addressed are:
• Should each client live in a separate apartment – each with its own caregiver?
• Or, would life be better in shared, family-style housing with a team of caretakers?
Can we design a paradigm for this kind of housing that takes into account the various phases of dementia, to avoid the brutal dislocation of moving clients each time their condition deteriorates?

Are there any architectural features that could be incorporated into the actual facility that might slow down the disease’s progress?

When this part of the program is complete, the architectural part of each team is expected to transform its theoretical model into an architectural one. Each group will design a building, or a group of buildings, that best exemplifies its theoretical approach. As the architectural designers progress, they will consult their Human Services team-mates to make sure that the architecture is consistent with the agreed program and adjustments will be made.

At the end of the semester a panel of social service professionals, gerontologists, and architects will be assembled to judge the teams’ projects. Each team will begin its presentation with an outline of its theoretical intent and conclude with models and drawings of its architectural interpretation. The panel of experts will question and critique each team’s effort.

Summary
If successful, the course will provide innumerable educational benefits to our students. First and foremost, they will (we hope) learn how to design a building. Second, they will learn how to research a project and present their findings orally and in written form. Third, they will learn how to collaborate with other professionals. Fourth, they will learn how to construct theoretical models. Finally, they will find that even as students they can make real contributions to their communities.