

## SERVICE LEARNING IN MATH AND COMPUTER SCIENCE\*

### *PANEL DISCUSSION*

*Moderator: Lori Carter, Point Loma Nazarene University, [lcarter@pointloma.edu](mailto:lcarter@pointloma.edu)*

Service Learning is rising in popularity as a way to provide practical experience for our students while contributing to the local community. Service Learning can take many forms. The purpose of this panel is to present the various types of Service Learning, and then to explore 2 of them in more depth. The panel members come from Point Loma Nazarene University where Service Learning is conducted as a year-long course, and California State University, Northridge where Service Learning was a component of another course.

*Erin Trine, Point Loma Nazarene University*

There are three main types of Service Learning. One type is where the Service Learning is a component of a regular class. The Service Learning may be one of the several parts of the class which could include perhaps an hour a week being involved at a program for which the teacher has made arrangements. Schools may also have a weekend Service Learning project. This could be a weekend trip to build a house, or serve in a soup kitchen. Last is the type of Service Learning that we have done at PLNU. The course is focused on Service Learning and relates to the field of study of which each the students are a part. There is a constant focus on the service being done as well as the learning that is happening along the way. Our group was given the assignment to conduct a Service Learning project with the math department at Point Loma High School. After time spent organizing the program and figuring out the school's needs, we decided to work in the remedial math classes where students were struggling the most. Each of the 5 members of my team spent two hours (class periods) a week in one of these classrooms. We have also had a two week period where we conducted after school tutoring sessions for students who had yet to pass the high school exit exam.

*Nathan Hirst, Point Loma Nazarene University*

My Service Learning project was to provide help to a local high school's computer science class. We wanted to try to supply them with a server in an effort to provide an upgrade from the floppy drives that they were saving their files on. We also wanted to help out with tutoring the students when they needed help, because some of them would be taking the AP exam. From this experience I've learned how to be flexible when approaching service; in order to actually be of service to someone you need to provide

---

\* Copyright is held by the author/owner.

something that would be helpful for them, not just convenient for you. I think that service is a positive thing in itself, so having a class that teaches service learning is a good way to promote it. One of the cons of a class for service learning might be that it takes away the spontaneity aspect of service; you need to be careful while structuring the class to allow for creative ways to approach service.

*Catherine Marcarelli, Point Loma Nazarene University*

I am a part of a group that served Point Loma Nazarene University's IT Services who maintains a large database filled with vast amounts of campus information. Our task is to interview people from various departments who frequently use large amounts of information in the database in order to discover how their needs are not being met when accessing this database. The project was intended to begin in August, but it took the entire first semester to fully formulate it with the client. The actual interviewing process began in January and is continuing right now. We hope to complete interviews with all our planned individuals by the end of April. Throughout the entire process, I have learned that serving is rewarding, encourages unselfishness, and teaches you not only about others but also about yourself. When working with as many people as my project has required, communication and scheduling frequently take more patience, flexibility, planning, and time than initially expected. While I have enjoyed the project, including it as a class introduces the danger of it being seen as another class to check off instead of as an experience to take in and learn from. For me, it has been great having this as a class because it is nice to include it into my regular schedule and have it be integrated as part of my college education as a whole. It drives home the belief that service is not just something you do outside of school and the workplace. The two can and should go hand in hand.

*Robert Lingard, California State University, Northridge, rlingard@csun.edu*

In the spring of 1998, I first introduced service learning as an option for students in Comp 450, our course in the societal impacts of computing. This remained a popular component of the course for the six year period I continued to teach this course. My approach to service learning was to give students the option of participating in a community service learning activity as an alternative to writing a term paper. Since this was a course dealing with the impact of computers on society, it seemed like a good idea to have students gain some first-hand experience on the effects of computing on those outside the computer field. Several community partners provided relevant opportunities such as New Directions for Youth, an alternative High School in Van Nuys, the Pregnant Minors Program of the County of Los Angeles, the after school program of the Pasadena Police Department, the anti-gang Jeopardy Program of the Los Angeles Police Department, and the computer literacy program of the San Fernando Parks and Recreation Department. The Comp 450 students involved developed courses and taught computer literacy skills and in many cases directly mentored students at these sites. A fairly consistent number of students (about 30% of each class) took advantage of this opportunity each semester. Most admitted that their primary motive in taking the service learning option was to get out of writing a term paper, but virtually all who participated felt that it turned out to be an extremely educational and rewarding activity. They made

comments like, "I learned a lot from this experience."; "Through the service learning experience, I saw the positive and negative effects computers have on education."; "It was a wonderful experience and I plan to return during the summer."; ". . . service learning . . . was a very enriching experience." Although I believe that this provided an effective way to allow students a more direct way to experience some of the societal impacts of computers and would have been beneficial to all students, it was not an activity all could take advantage of. Not all students were able to find necessary transportation to the community sites involved, and others had schedule commitments that prevented them from participating, but those who did participate found it to be a very satisfying experience.