Teaching is a noble profession, a giving profession, a caring profession. Teaching has its rewards. However, the rewards are quiet, internal rewards. A teacher is rewarded when a student shows improvement in his work, when a student seeks out the teacher for help, when a connection develops between the student and teacher. A teacher is rewarded in countless ways, and all the rewards are as unique as the individual teacher. Giving to the students is a reward. Caring for the students is a reward. Making a difference is a reward.

Through my service learning project in the Klondike Middle School of West Lafayette, Indiana, I learned just how rewarding teaching can be. On my very first day of the learning experience, the instructor of the eighth-grade chemistry class that I would be interacting with welcomed me with open arms. The students happened to be working on their Science Fair Projects which were to be presented at Purdue University. I had the pleasure of watching the students as they made their presentations to their fellow classmates as a kind of trial run. It was very interesting to see the scientific process at work in these young science students. I remember thinking to myself, “Why didn’t I ever enter a science fair?” I reasoned that my love for science grew with each additional science course that I took and each additional year that I’ve lived.

This service learning program, as stated earlier, revolved around eighth-grade chemistry students, roughly thirteen years old, both male and female, Caucasian, middle to upper class, and no apparent disabilities. The class contained about twenty-five students, mostly all of them eager to learn! This was a good class to be involved with, as Mr. Heath’s general teaching atmosphere was based on hands-on learning. I am a big proponent of hands-on science learning. According to “The American School Board Journal,” a science hands-on approach “refers to the brand of science education that has students digging for fossils, designing rockets, cross-pollinating plants, building solar generators, writing computer programs, and bending light through prisms”
These authors go on to state “Experts in science instruction agree almost universally that hands-on is a powerful way to teach, that students understand science best when they do science” (Heller & Turner, 1988, p. 26). One problem that may stand in the way of hands-on science is the lack of qualified science teachers. In order for hands-on science learning to generate valuable learning in science students, the teacher must be well educated, both in science and education. Haury and Rillero (1994) found that “Teaching with hands-on activities is demanding, hectic, noisy, and sometimes unpredictable…” (p. 3); in other words, the teacher must possess the skills to handle this type of environment. At Klondike Middle School, there may be a problem in hiring well-educated science instructors. Mr. Heath, the instructor of this chemistry course, has only a minor in biology, and a major in physical education. While I believe that he is a competent instructor, I feel that his lack of education in chemistry hinders the education process in his classroom. I did witness some misperceptions on his part regarding chemistry, and in a hectic and unpredictable learning environment, these misperceptions may be passed onto his students.

My activities in this classroom included questioning the students after they finished presenting their Science Fair Projects, reviewing their exams with them, grading papers, leading the class in activities and lab assignments. I always took care in conveying and eliciting information in the classroom. For example, in questioning the students after their Science Fair Projects, my questions were biologically oriented which required the students to expand their conceptual thinking into a different area of science. They needed to make connections between chemistry and biology in order to answer my questions.

Another major area of my responsibility was to lead the class in lab assignments. Mr. Heath allowed and encouraged me to lead the class almost entirely on my own. He gave me the
day’s lesson plan with brief instructions, and I took it from there. It was my responsibility to mix and prepare the solutions to be used in the lab experiments. It was also my responsibility to instruct the students in performing their experiments. I circulated each lab table, and made sure that all safety issues were being addressed. It was gratifying to have the students come to me first with their questions. I believe that I was able to answer most questions confidently.

I also guided the class through activities. In one example, I led the class through an activity in which class members came to the front of the classroom and gave a passage. Next, I collected and documented who they chose as their lab partner. I then conveyed to them the steps that they would follow in their lab experiment write-up. After I read one step aloud to the students, I asked that a student read the following step. Students at the middle school level enjoy reading aloud, and I knew that if they were enjoying the activity, they would more likely be absorbing the material.

I believe that I was effective in this service learning program because students were able to complete their assignments with my direction, and also the students continually came to me for direction and with their questions. Time and again, the students came to me with questions on how to complete a lab experiment, on how to structure their lab write-up, on class requirements, and on areas of chemistry that were unclear to them. This was very rewarding to find that even in an area of science that is not within my major of biology, or minor of earth space science, I was able to successfully fulfill the requirements of the service learning program. I did make a difference!

Through this experience, I learned about why I want to teach. I didn’t grow up wanting to become a teacher, but I’ve always loved the academic environment. During my interactions with these chemistry students, I realized that my love of science could be shared with others in
the classroom. I believe that for each and every person who develops an interest in science, there exists the possibility that the world may become a better place in which to live.

Who do I want to teach? I know that I wish to teach at the middle school or high school level; it really makes no difference to me at this point which level I finally pursue. Each group of students has something special to share. Middle school students are more likely to be impressionable, and high school students are capable of learning and understanding higher level content. I am also preparing myself to teach different subjects—biology, earth space science, or general science.

How do I want to teach? I most definitely want to teach using a hands-on science learning environment. Through this program, I was able to see hands-on learning in action. Hands-on learning is a natural partner with science inquiry. According to the “Journal of Family and Consumer Sciences,” DeMerchant (1995) found that “Hands-on science: Is fun, is instructionally sound, provides opportunities for interdisciplinary learning, provides opportunities for cooperative groups, emphasizes real world activities, and increases parent involvement” (p. 1).

This service learning program was very valuable to me because I was able to immerse myself in a science learning environment. I was able to experience how active science learning takes place, and witness the scientific process at work. I was able to interact with students on a variety of levels as I took on the responsibilities of leading the class in various activities and assignments. This experience has further solidified my desire to teach science to middle or high school level students.
References

