

# Evolution of a Required Service-Learning Course: Lessons Learned and Plans for the Future

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**ABSTRACT.** The goals of this paper are to describe the initial implementation of a service-learning experience at the Duquesne University Mylan School of Pharmacy, discuss the challenges that are presented throughout its first offering, explain how these challenges are being met, and reflect upon how to make future course offerings more effective.

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The School's newly required service-learning experience was given its own course name and number but was designed to complement a survey course in the American health care system wherein students learn the roles of a pharmacist in the delivery of medical care and of non-profit agencies in advancing public health. Students selected a site to complete the service-learning requirement through Duquesne University Volunteers (DUV) office, which had contacts with numerous agencies throughout southwestern Pennsylvania. Many of the sites did not distinguish adequately the difference between volunteerism and service-learning, resulting in a number of students performing menial tasks. In the second offering, many sites were eliminated and new options for completing the service-learning requirement were added. Additionally, course instructors initiated a relationship with faculty and graduate students from Duquesne University's English department in an effort to facilitate improvement in the students' writing abilities. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2005 by The Haworth Press, Inc. All rights reserved.]

**KEYWORDS.** Service-learning, reflection, curriculum reform

### ***THE VALUE OF SERVICE-LEARNING***

Pharmacy educators and members of the American Association of Colleges of Pharmacy (AACP) have formally recognized the potential benefits of incorporating service-learning experiences into pharmacy curricula for nearly a decade (1, 2). While Beardsley (2) did not mention service-learning specifically in the Task Force's report that schools "develop opportunities for community mentoring that promote citizenship," the AACP's "Maintaining our Commitment to Change" (1) prescribes service-learning as an alternative experiential rotation affording students the opportunity to relate to patients who are compromised in some way, and providing an avenue for interdisciplinary or even inter-professional team learning. The number of professional pharmacy programs offering one or more service-learning experiences reached 20 or more by the year 2000 (3, 4). These experiences include incorporating service-learning into existing clerkship rotations (5), as its own elective (6), and more recently, into elective (7) and required didactic courses (3, 8).

The case for implementing service-learning activities into pharmacy curricula is compelling. Ability-based education competencies such as thinking, communicating effectively, and demonstrating ethical principles, personal awareness, and social responsibility were proffered by the AACP Focus Group on Liberalization of the Professional Curriculum in 1992 (9). Service-learning experiences have been demonstrated to improve communication skills in students dealing with patients facing structural, financial or contextual barriers (10). The implementation of service-learning also has fostered student improvement in ethical reasoning (11) and attitudinal changes in how individuals can make an impact on the daily lives of others (12). Two noted scholars in service-learning education, Janet Eyler and Dwight Giles, described comprehensively the benefits gained from implementing a service-learning program; these included improvements in problem-solving, critical thinking, civic-mindedness, maturity, professionalism, increased tolerance for diverse views and greater self-efficacy as an agent for change (13). Other research suggests that successful implementation and inculcation of service-learning throughout a curriculum can promote student closeness toward the faculty, stimulate alumni participation and giving, and provide considerable public relations and marketing opportunities for an institution (14). Pharmacy educators have effectively implemented service-learning activities to improve student understanding of health policy and social support issues (15), ability to see how concepts learned in class can be used in everyday life (8), and perceptions of how much they have to offer to others who are in need (16).

### ***Rationale for the Service-Learning Course***

An examination by faculty at the Mylan School of Pharmacy (MSOP) of Duquesne University of the entry-level PharmD curriculum revealed a need to offer students a greater number of opportunities to contemplate and offer solutions to “real-world” problems. Coincidentally, the university was in the process of revising its core curriculum to include activities in community service as part of ongoing efforts to connect closer with its Catholic mission. The university provost was quoted as saying, “. . . the Spiritan Fathers teach us that to serve students is to serve God,” and that “. . . teaching our students to serve the community is a way for our students to also serve God (17).” The faculty at the MSOP debated the implementation of service-learning into the curriculum during a retreat in the summer of 2002. The faculty adopted the view that the service-learning experience should occur during the di-

dactic component of the professional program as opposed to during the experiential component. As the university began requiring that all schools implement “writing-intensive” courses (involving multiple iterations of writing with corrections and direct supervision from instructors) and have them designated as such in the university catalog with a “W” affixed to the course number, it also was decided that the service-learning course would be an excellent one for students to hone their writing skills. While there was a lack of consensus for its implementation into each year of the professional program, the faculty did agree upon an initial offering in the fourth year (second professional year) of the “0-6” curriculum.

### ***Objectives of this Article***

The remainder of this paper will describe the implementation of the service-learning experience at the MSOP, discuss the challenges that presented throughout its first offering, explain how these challenges are being met, and offer reflection upon how we plan to make future course offerings more effective.

### ***Course Design***

In designing the course, faculty instructors identified a number of suggestions derived from research on service-learning pedagogy (18-20):

- Provide academic credit for learning, not for service
- Do not compromise academic rigor
- Set modest, but challenging learning goals for students
- Provide educationally sound mechanisms to facilitate learning
- Minimize the distinction between community learning and classroom learning roles
- Connect the program with course objectives
- Meet real community needs
- Provide structured opportunity for reflection
- Clarify the responsibilities of students and organizations involved.

Additionally, in a survey of service-learning pedagogical strategies among colleges/schools of pharmacy, it was suggested that instructors avoid one day programs such as “walkathons,” “brown bag” medication review services or simple volunteer work without structured activities (4).

The instructors had several models from which to pattern the MSOP service-learning experience, both within and outside of the pharmacy literature. The program implemented and described here was based upon one reported by Barner at the University of Texas at Austin (UT) (3, 15). The primary appeal of this program was its inclusion in a required didactic course. Moreover, the program utilized the resources of a university volunteer center in much the same way instructors planned on using a similar center at Duquesne University. Another appealing characteristic of the UT program was the autonomy afforded students to select a site, and the breadth of project options. MSOP's instructors also preferred that the service-learning experience help students identify roles for pharmacists and civic-minded adults that do not necessarily emanate from an expressed affiliation with a health care provider. Avoiding "activities that could be described as clinical pharmacy services" (4) was also preferred.

The initial service-learning experience at the MSOP was given its own course name and number (Service Learning Experience in Pharmacy; PHSLE 477W). The curriculum committee believed that students should be cognizant of the fact that service learning was supported by the faculty and administration, and not just the instructor of a particular course. Additionally, it was anticipated that service-learning also would be implemented into the P-III and P-V years of the curriculum. It was recognized that this would require cooperation among many faculty, and that junior faculty would be most vulnerable to poor student evaluations upon integration of a service-learning component into courses within their own disciplines.

The PHSLE 477W course was expressly designed, however, to accompany the American Health Care Systems course (PHBAS 410). Both courses shared the same primary instructor of record (i.e., "course-master"). PHBAS 410 is a required two credit course offering students an introduction to issues of health care access and policy, particularly pharmacy care and medication use. The course is comprised of components in professionalism, models of health care delivery, managed care, pharmacy benefits management, Medicare and Medicaid. Students also learn of the contribution of non-profit agencies in public health, and of the impact that any caring adult, particularly a trained health care professional can make toward improving the health and well-being of populations. The PHSLE 477W course was designed to reinforce these concepts through active learning strategies. The course objectives listed in the syllabus are as follows:

1. Exhibit a social awareness of health-related issues.
2. Interact effectively with, and develop sensitivity toward, patients/clients who may be different from you with respect to culture, ethnicity, age, disability or economic circumstance.
3. Evaluate the interrelationship between social services and social support to a person's or a family unit's health care outcomes.
4. Identify opportunities through which a health care professional can make positive contributions to a community problem outside of his/her practice environment.
5. Utilize community resources to provide services to needy populations.
6. Demonstrate teamwork in working with other types of professionals and caregivers to serve the needy.
7. Develop an understanding of what it means to care for and be responsible for others.
8. Translate experiences into an organized collection of activities through the process of reflection.
9. Integrate practical experience with results detailed in the literature to describe your position on a problem facing the community, and identify more effective means of dealing with this problem than those which currently exist.

Students are awarded one credit for successfully completing PHSLE 477W, which entails a minimum of 16 hours of service at a chosen site and participation in one, 2-hour debriefing session. Grades are based upon completion of three written assignments. The first, worth 25 percent of the course grade, is a "goals and objectives" paper, a short paper 1/2 to 2 pages in length (double-spaced) wherein the student briefly describes the mission of the site, why (s)he chose the site, and a plan for what (s)he will attempt to learn and accomplish at the site. The paper is due approximately four weeks into the semester, and students are required to have completed at least one site visit of 3 hours or more. The second assignment, worth 35 percent of the course grade, is a "reflective journal," or diary account of activities during each site visit. The journal should contain reflections on the organization and the people it serves, what, if any, viewpoints were affected by the visits, and projections of how experiences at the site may influence behaviors as a pharmacist and caring adult. The third assignment, counting as 40 percent of the course grade, is a summative paper approximately 1,200-1,400 words in length. Students are encouraged to write "issue" papers dealing with some aspect of the site's mission; for example, a project at the Hillman Cancer

Center or local chapter of the Cystic Fibrosis Foundation may yield a paper centered on the humanistic or economic impact of a particular disease state. Alternatively, a paper discussing issues of access to health care may result from working at a temporary shelter, or an experience in a long-term care facility may inspire a paper explaining a population-based approach to helping seniors manage their disease states. Students are required to incorporate references from the primary literature in this assignment.

Students were provided the syllabus and an orientation to the PHSLE 477W course during the initial PHBAS 410 class meeting. Students were instructed in the Fall 2001 semester to make an appointment with Duquesne University Volunteers (DUV) for selection of a project site, in preparation for implementation of the course in the Spring 2002 semester. DUV maintains relationships with nearly 1,000 non-profit agencies in the southwestern Pennsylvania area. While somewhat new to handling matters pertaining to service-learning, as opposed to volunteerism, persons at DUV were extremely cooperative and agreed to assist students with selecting a site by querying their preferences (e.g., a desire to work with seniors, children, or homeless persons, etc.) and barriers (e.g., lack of transportation) that would preclude certain sites. As many as 6-7 students were allowed to register for the same site, depending upon the site's size, hours and scope of operation.

Students were required to attend any one of five, 2-hour debriefing sessions during the latter part of the semester, after they had completed most of the required site visit hours. The sessions were moderated by course instructors and persons from DUV. Students were afforded the opportunity to hear about sites and experiences other than their own and engage one another in group reflection. Students were asked to respond to open-ended questions about experiences at their site, what they learned about how the site contributes toward clients' well-being, the flow of money and other resources into and out of these organizations, and how they might continue to contribute positively toward their communities. Students also were allowed to ask questions about the remaining assignments and provide feedback on improving the service-learning experience.

Students were asked to complete an informal self-administered survey questionnaire toward the end of the course to gauge perceptions of their learning and elicit information about the types of clients with whom they came into contact, the types of activities they engaged in, demographic data, and the perceived balance between serving and learning experiences at the site (15).



### ***Students' Selection of Sites in 2003***

Many students selected sites with youths or juveniles as the primary client. These included a children's waiting room for the county's juvenile court, after-school programs, and a center that allows guardians/parents of children time for free play, interaction, and use of its games and toys. Students reported during the debriefing sessions and in their reflective journals that they enjoyed being around children and noted that it was interesting to interact with kids and parents who come from markedly different socioeconomic backgrounds than they did. Some students reflected that "people are people"; however, others were astonished at the lack of a more formal social support network for many children. Many of the students selecting sites that worked with youth clients stated that it was difficult for them to meet the course objectives. The coordinator at DUV indicated that a small minority of students indicated to her beforehand a preference not to work with "old people," which to her and to the course instructors is quite disconcerting.

Approximately one-third of the students worked with organizations that primarily served seniors. These included long-term care facilities, community centers, and home health care programs. These students appeared to get more out of their experiences than did other students, with many of them commenting during debriefing sessions that they gained a greater appreciation for seniors having at one time been young, in school, and trying to establish a career. Students also may have felt more comfortable at these sites because many of them ended up discussing medication-related issues with the clients.

Some students selected other sites that made it difficult for them to achieve the course objectives, such as a botanical garden, animal shelters, thrift stores, and an organization that sold used building materials. Other students worked with organizations whose mission is to assist individuals afflicted with certain conditions (e.g., cystic fibrosis, mental disorders). Unfortunately, these organizations are involved primarily in fundraising activities and do not interact considerably with its clients.

### ***Modifications for the 2004 Course Offering***

The course was revised for the Spring 2004 semester. Feedback from students led to the elimination of several service-learning sites (community partners) that had assigned menial chores to students and had provided few opportunities for interaction with clients. At the same time, new sites were added. The Assistant Director for Experiential Educa-



tion, in part through her capacity as advisor to the school's Academy of Students in Pharmacy (ASP) chapter, designed and implemented several programs on bike safety, meningitis, poison prevention, immunizations, and diabetes. Students enrolled in the 2004 PHSLE 477W course were given the option of contacting her and joining one of five teams whose primary responsibility was to develop appropriate materials and deliver presentations to lay audiences on one of these topics.

Additionally, a faculty member in the pharmacology/toxicology department developed a program titled "The Neuroscience Behind Drugs of Abuse" for middle and high school students. The program employed science-based arguments intended to curb or discourage substance abuse among teenagers, and complemented existing national programs that utilize moral- or legal-based anti-drug arguments. This program was geared to be delivered by knowledgeable peers (e.g., professional pharmacy students) presenting objective truths about the short- and long-term neurological effects of various substances including marijuana, cocaine, heroin, and ecstasy and other amphetamines. Students opting for this project had to train and deliver a practice presentation to one or more course faculty. Taking into account the preparation time required, these students were required to deliver three presentations and complete the same writing assignments required of other students in the course.

Another effort to improve the quality of the service-learning experience was a voluntary program conducted by DUV for community partners, educating the latter on differences between volunteerism and service-learning. A graduate student in the School of Education with extensive experience in administering service-learning programs, whose teaching assistantship was administered through DUV, was enlisted to assist in designing and facilitating student debriefing sessions. The graduate student also provided useful materials to assist students with drafting their reflective diaries.

Finally, the coursemaster collaborated with members of the university's English department and Writing Center (a drop-in facility not affiliated with any academic department) to develop a voluntary program for students enrolled in the course to improve their writing skills. The 14 students who volunteered and completed the program attended two workshops conducted by English department teaching assistants. The workshops dealt with several basic tenets of grammar and sentence structure as well as how to make logical arguments and conduct effective searches of the literature. Additionally, student participants were assigned one of 12 tutors for 2 to 3 "one-on-one" consultations to im-

prove their writing. Volunteer tutors were recruited from the graduate Teaching Fellows and part-time instructors who teach the first-year composition class in the English department. While the coursemaster took interest and believed in the merits of this voluntary program, this project was viewed as a first step in developing more meaningful and sustained relationships with the Director of the Writing Center and various faculty from the English department.

### ***Students' Selection of Sites in 2004***

Thirty-one of the 126 students enrolled in the 2004 course offering worked with the Assistant Director for Experiential Education, and another 33 students worked with the pharmacology faculty member on the substances of abuse presentations. The remaining 62 students selected a site through DUV. While students were still afforded the opportunity to select a site, representatives from DUV encouraged students to consider one that works primarily with seniors. Still, only one-third of the students elected to do so.

### ***Impressions Following Two Course Offerings***

Students expressed disfavor toward the course during debriefing sessions and on an informal assessment eliciting opinions on the extent to which the course met its objectives and assisted them with applying concepts learned in other courses. While somewhat disappointing, this was not surprising given that the course (1) was not part of the existing curriculum when the students began the professional pharmacy program, (2) required a significant amount of additional work during what was already perceived to be an arduous semester, and (3) involved activities (e.g., writing assignments) that the students had little exposure to previously. Moreover, students at the MSOP have historically expressed dissatisfaction with grading that extends beyond the multiple-choice examination format. That being said, student feedback from the informal written assessment and from the debriefing sessions was considerably tamer during the course's second offering. This could be the result of the additional choices for completing the service-learning requirement and a reduction in the number of sites coordinated through DUV wherein students were involved in clerical, fundraising, or other activities involving menial labor. On the aforementioned informal assessment, a greater proportion of students in the 2004 course offering intimated a more reciprocal relationship between them and the commu-

nity partners (Table 1). The 2004 figures are still lower than those reported by Barner (15).

While many students either have not perceived or conceded value in PHSLE 477W, it was evident from many of the reflective journal entries and summative papers that participation in service-learning activities encouraged them to think. A few excerpts from student reflective journals are provided in Appendix I. In addition to these and many other excerpts, a number of students commented that they learned lessons in humility. Some students suggested that if more people, especially pharmacists and other trained health professionals, would do more to ameliorate America's social ills, there might not be as great a need for government programs designed to address such problems. One student in an otherwise unfulfilling experience (sending letters to solicit donations) noted that while she wished she could have been more involved with clients, she realized that her contribution provided the time for someone else to do something important for the organization and its cause.

The voluntary writing skills program may have been beneficial to its participants. Students in the program provided positive informal feedback about their participation. Some of students indicated to the coursemaster that it helped them to realize just how much their writing skills required further improvement. They commented that many of their fellow students are under the false impression that writing skills are of little utility and that they write plenty well enough, already.

### *A Look Back, and A Look to the Future*

Reflection on implementing the MSOP service-learning reveals a number of thoughts and lessons learned. Given the nature of how the course was brought into the curriculum, the students were not expected to immediately embrace the program. Still, the reluctance among students to ascribe greater value to the course is disappointing. Course in-

TABLE 1. Students' Perceptions Regarding the Balance Between Service and Learning.

Response Category	N (%) Year 1	N (%) Year 2
Served more than learned	73 (73.0%)	41 (52.6%)
Learned more than served	0 (00.0%)	04 (05.1%)
Served and learned at the same level	27 (26.7%)	33 (42.3%)

structors, other faculty, and administrators who have attended one or more debriefing sessions and/or read some of the student papers do believe, however, that students are gaining valuable experience. Some students have continued to volunteer at their chosen sites, indicative of a mutually beneficial exchange occurring between the student and the organization. The PHSLE 477W course is the type of experience that may be more highly regarded years later, when these practitioners reflect back on their educational experiences.

The instructors believe that the passing of time and embedding of service-learning into the culture will continue to yield more favorable opinions among students; however, increasing the quality and “palatability” of the programs remains an issue. While the long-term benefit of the service-learning experience has not and perhaps will not ever be accurately measured, student satisfaction with a course is one outcome measure that faculty and administrators are concerned with, even if students are not always in the best position to judge “quality.” The course differs from other service-learning experiences reported in the pharmacy literature and elsewhere in that it is required, involves a very large class, is taken during a semester that is otherwise entirely didactic, is not part of a clerkship experience, and requires many students to find their own site through a university-based office. Some students have complained that they fail to see the relevance of the course and that it should be more “pharmacy-related.”

### *The Spring 2005 Course Offering and Beyond*

The Spring 2005 course was just underway at the time this manuscript was being prepared, and students were in the process of selecting their sites. A significant change from the previous two course offerings involves a more formal collaboration between DUV and only eight community partners, with all other sites having been eliminated. Each community partner has developed a much more structured project for the students. For example, students will provide in-service education to staff at a facility that meets the needs of children and families at risk; design a program at a teen center for clients to learn about careers in health care; work with a homeless population to improve medication adherence; and work one-on-one with a case worker employed by a home health agency to interview its clients. The course instructors continue to learn how important it is to cultivate relationships with community partners and to identify real needs from which to develop student projects.

A teaching assistant (Ph.D. candidate) from the English department was hired full-time to assist with the course. The teaching assistant will work with graduate assistants from the Department of Pharmacy Administration to improve students' writing abilities and to grade their assignments. In this course offering, students are mandated to submit an initial draft of the latter two assignments to an instructor or teaching assistant and have it reviewed prior to submitting a final draft for grading. The teaching assistant from the English department already has assisted with the development of a more comprehensive rubric for grading the goals and objectives paper (Appendix II) and will create a packet that includes each rubric along with guidelines and examples of good writing technique.

The coursemaster for PHSLE 477W plans to appeal to the curriculum committee and MSOP faculty to incorporate the service-learning activities into the American Health Care Systems course, and will revise the objectives appropriately, thus eliminating PHSLE 477W as a stand-alone service-learning course. PHSLE 477W course instructors also will share their insight with faculty as the MSOP contemplates implementing service-learning activities into the first and third professional years (PIII and PV) of the curriculum. The evidence suggesting that service-learning programs bear greater fruit through multiple experiences and incorporation into a degree program's culture (20) will be stressed. It will be proposed that the PIII service-learning experience be incorporated into the PHBAS 341 Professional Communications course, as students in this course are already required to deliver health presentations to various public audiences. Adhering to principles of effective service-learning programming, reflection and written components may be added. For the PV experience, the course instructors are part of a larger contingent of faculty who are proposing curricular changes that would involve combining parts of various courses in clinical skills, self-care, and physical assessment into two modules which could serve as a mechanism for implementing service-learning. Thus, each service-learning experience would be associated with a particular course and build upon previous experiences, with the first experience associated with communication, the second with public health, and the third utilizing knowledge gained throughout the professional degree program to perform specific, more clinically oriented projects.

The additional sites and projects incorporated into the course should help students to connect their efforts with the course objectives and to see the relevance of pharmacists' roles in public health beyond the boundaries of traditional employment settings. That being said, course

instructors still believe that pharmacy students should continue to be exposed to situations to which they are not necessarily comfortable or accustomed.

### CONCLUSIONS

Implementing a required service-learning experience for a large class in a semester comprised solely of didactic courses has been a challenge. Student opinion of the experience was below expectations. It is evident that students have a preference for activities in which they have been more accustomed. Course instructors have worked hard to help students see the relevance of service-learning without compromising goals that they learn to appreciate interaction with persons from unique backgrounds, understand the roles they may play in improve the public's health, and exercise autonomy in structuring their own educational experience. Course instructors have learned from several mistakes in course design and have thus made improvements to cultivate relationships with a smaller number of community partners to provide structure to the experience and have made strides to improve the course's writing component as an effective learning tool. Course instructors will use their experiences and acquired wisdom to assist the faculty with designing service-learning experiences in other places throughout the curriculum.

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## APPENDIX I. Excerpts from Selected Reflective Journal Entries.

**Excerpt Group 1.** (Children's waiting room in family court). "As pharmacists, I believe we need to be open-minded to how an individual's behavior may reflect stressful situations they are enduring."

**Excerpt Group 2.** (Boys and Girls Club). "... the children live their lives much differently than I did growing up. [They] walk directly from school to the club and stay there most of the evening. . . . My mother always picked me up from school. I was never allowed to walk by myself to any location. . . . I got home early and my mother always cooked dinner for us. Most of these children do not even get home until very late." "I witnessed some children at a very young age developing some unhealthy lifestyle characteristics. You always hear about these things, but it does not affect you until you see it first hand, then you begin to see what a public health problem this is."

**Excerpt Group 3.** (a medication assistance program). "At first I didn't understand why we were calculating prices of the medications if the patients were receiving them for free. I was so surprised to find out the high costs of some drugs. As an intern, I was accustomed to seeing their copays, not the cash prices. I realized how lucky I am to have health insurance and good health." "I plan to build awareness of this and the Rx Assist program in whatever way that I can and plan on continuing to donate my time and efforts at the [site] long after I graduate."

**Excerpt Group 4.** (a home health care program). "In [the patient's] case, using public transportation is almost impossible because she is in such excruciating pain. Being aware of the difficulty for some senior citizens to get around, even to such places as the local pharmacy, has given me a new perspective on access to medications and patient compliance."

**Excerpt Group 5.** (housing and support services for patients and families who travel to receive care). "I can use this experience . . . to empathize with my patients. I can also improve my own life by enjoying everyday and by living life to the fullest." "... this policy appears to be very short-sighted, because going above and beyond for someone in need is the ultimate thing that one can do. In my practice, I will challenge myself to go that extra mile for people, everyday." "The simple act of pulling up those pictures and printing them out brought a tear to his eye. Not only were the pictures for him, but also for his daughter in the hospital. The smile on his face said it all. I just wish I could have seen the smile on his daughter's face as well."

**Excerpt Group 6.** (long-term care facility). "One thing I took from today's visit was that if you give someone just a moment of your undivided attention, they will appreciate it so much and often return it back several fold."

**Excerpt Group 7.** (substance of abuse presentations). "I was under the impression that the suburban kids would not have a clue about street drugs. I see clearly now that this was a reflection of my own ignorance about the rest of the world." "I requested the assistance of two students in the audience to come up front and pretend to be neurotransmitters. When I (the presynaptic terminal) gave them the signal, they would walk a couple of steps (across the synapse) to [other student presenter] (the postsynaptic neuron) and deliver the message. Then, I used my arms (re-uptake transporters) to bring the students (neurotransmitters) back out of the synapse to me (the presynaptic terminal). I thought this was an active example of neurotransmission that was easy to follow and enjoyable." "... students not only asked us questions on abusive drugs, but on OTC drugs, ibuprofen, and certain legend drugs, like Paxil<sup>®</sup>. This gave [the other presenter] and I the opportunity to practice counseling on a drug we were familiar with."

## APPENDIX II. Rubric for Grading the Goals and Objectives Paper.

S. L. Assignment 1: Goals and Objectives Paper

Name: \_\_\_\_\_

Length: 1-2 pages

Value: 25 points

Score: \_\_\_\_/25

Due Date: 11 February 2005

Criteria Score	5 Excellent	4 Very Good	3 Satisfactory	2 Fair	1 Poor	0 Failure
Introduction 5 points	a) Describes site and its mission. b) Brings in any government or religious affiliations that contribute to this mission. c) Ends with a 2-3 sentence statement of your personal and professional goals.	Good expression of site details and mission; shows insight.	Adequate—statements are simplistic.	Lack of detail and insight; flavorless.	Lack of development in all 3 areas.	Absent
Statement of Goals 5 points	a) Presents what you hope to learn from the experience and how you plan to help the organization achieve its mission. b) Provides your reader with a “road map” of the material that follows.	Shows some interpretation of mission statement.	States goals, but does not connect to site mission.	Simplistic list of goals with little connection.	Vague or general.	Absent
Critical Thinking 5 points	a) Expresses insights into issues and awareness of the complexity of the problem your site works to solve. b) Clear reasons as to why you chose the site and how contributing to its mission helps you become a better professional, student, and citizen. c) Demonstrates clear analysis and understanding of the site's mission and how it fits into the complex social landscape in which it exists.	Some insights into situations, issues, and change/growth. Some sense of complexity.	Expression at an intuitive or emotive level, but insights are too simplistic.	Neutral experience without expression of impact, personal or professional.	Merely recounts experience without analysis.	Absent

## APPENDIX II (continued)

Criteria Score	5 Excellent	4 Very Good	3 Satisfactory	2 Fair	1 Poor	0 Failure
Organization 5 points	a) Points appear in logical order as presented in your statement of goals. b) Skillfully employs transitions between and among paragraphs, linking points in a sophisticated manner. c) Each paragraph has a clear topic sentence and supporting details that stay within the topic. d) Paper has a perceptible introduction, systematically developed body paragraphs, and a forward-looking conclusion that does not merely repeat previous material.	Well-crafted, demonstrates some complex reasoning; makes an effort to stay on topic and largely succeeds.	Some missing transitions, notably within paragraphs, but still holds a solid structure.	Does not link ideas; some paragraphs tend to ramble off topic; conclusion repeats previous material.	Severe problems with paragraph structure; lacks cohesion.	Absent
Writing Quality 5 points	a) Voice is consistent and active. b) Grammar, syntax, and spelling are correct. c) Avoids wordiness, vagueness, and generalities. d) Verb tense is consistent.	Good writing style with solid ability to convey meaning. Minor errors.	Writing style conveys meaning adequately, but lacks sophistication.	Difficulty expressing ideas, feelings, or descriptions. Grammar, etc., needs work.	Repetitive, elementary syntax and poor grammar.	Absent