Constructing Experiential Learning for Online Courses: The Birth of E-Service

A lack of service-learning programs for online courses prompted the creation of e-service to provide experiential learning opportunities

By **Jean Strait** and **Tim Sauer**

Advances in technology have forced educational reform, including the development of a new educational paradigm for online distance education. In this environment, teachers become mentors and guides rather than the "all knowing" authority often associated with the traditional face-to-face format. In addition, new issues and challenges have begun to materialize from this new paradigm, prompting investigations related to the quality of online instruction:

- Effectiveness of distance teaching versus face-to-face instruction
- Collaboration and cooperation among online students
- Types of student interactions in the online environment
- Training and in-service for teacher education students enrolled in distance education programs
- Planning and implementation of curriculum and delivery for online courses

Productive, frequent interactions, both teacher-student and student-student, are essential to the online course environment. Instructors are examining ways not only to foster these interactions but also to engage distance students in their local communities through experiential learning opportunities.

Experiential education is a general term used to describe academically related work experience.[1] In addition to preparing students academically, insti-tutions of higher education are called upon to prepare students for the complex issues they will encounter in the workplace. Experiential education includes such activities as internships, practica, cooperative learning, and student teaching. It provides a bridge between learning in the classroom and learning on the job.

Service-Learning and Online Formats

Over the past decade, colleges and universities have embraced a form of experiential learning called service-learning. Service-learning is a form of experiential education in which students engage in activities that address human and community needs and have structured opportunities to participate in activities designed to promote their learning and development.[2]

By providing structured opportunities designed to promote student learning through engagement in the community, service-learning fosters students' critical thinking and interpersonal skills. Students participating in service-learning

- provide community service as part of their academic coursework,
- learn about and reflect upon the community context in which the service is provided, and
- develop an understanding of the connection between service and their academic work.[3]

As the face of higher education evolves with the advent of online formats, it becomes difficult to develop experiences for distance students that continue to provide work-based experiences and engage them as members in their local communities. Conventionally, service-learning experiences are structured in a local community that is usually in proximity to the higher education institution where students are enrolled and to which they can easily gain access. With online courses, students are based in their own communities, which might not be in the same county, state, or even country as the higher education institution. The challenge then is how to provide a quality experience in service-learning while meeting the needs of multiple students in multiple communities. This type of distributed service-learning is called e-service.

Creating an E-Service Model

Bemidji State University, a midsize state university in Minnesota, offers a teacher education program known as DLiTE, or Distributed Learning in Teacher Education. Created by e-learning leader Barbara Bridges, DLiTE is a WebCT-enhanced teacher education preparation program that serves the state of Minnesota. Currently, Bemidji State University serves 5,000 students from 40 states and 44 countries and offers 98

undergraduate programs of study including 13 preprofessional programs.

Responding to the shortage of teachers in the United States, Bemidji State University and the Minnesota Satellite and Technology Center partnered with the Perpich Center for Arts Education, the Walker Art Center, the Paramount Theater and Visual Arts Center, and the community colleges Anoka-Ramsey, North Hennepin, Central Lakes, Century College, Fergus Falls, Inver Hills, Itasca, Lake Superior, Normandale, Rainey River, Ridgewater, and Rochester to develop a blended-technologies, K–8 elementary education program for rural and urban students who, for various reasons, cannot attend a campus-based teacher education program. By using already available courses, professors, organizational structures, and student support services and technology, this program provides a flexible development and delivery system that will accommodate future growth and technology enhancements.

The DLiTE cohort program launched in the fall of 2002. Each cohort contains 25–30 students. Features of the program include

- Weekend face-to-face classroom experiences with professors twice a semester. These meetings take place at the Perpich Center for Arts Education (Minneapolis), the Paramount Theater (St. Cloud), or Bemidji State University (Bemidji).
- Student-selected teacher-mentors who work exclusively—in classroom settings—with one-on-one time for students and mentors.
- Online learning using WebCT, Bemidji State University's instructional management system.
- E-mentoring by faculty through WebCT, e-mail, telephone, and interactive television, as needed.

Two Explorations of E-Learning in DLiTE

Currently, students in the DLiTE model have service-learning infused into courses beginning in the second semester. They have at least one course with a service-learning experience each concurrent semester thereafter. Pedagogy, Language Arts I, Language Arts III, and Science Methods all infuse e-service in their math methods coursework.

Language Arts I

For the first class in the language arts sequence, Jean Strait guided learning methodology and teaching reading to elementary school students with e-learning. Since the students are distributed throughout the state, each of them had individual e-service placements that they helped arrange. Several of the students volunteered at summer school programs, worked with local libraries, contacted local youth organizations, and provided additional support to community centers. Each learned about a particular methodology, applied it in the service-learning placement, and reflected on the nature of the experience. Students were required to complete 20 hours of service-learning as a major component of the course.

The community organizations undoubtedly benefited by having the students working on their individual needs. For example, one student contacted the local library, did a needs assessment, and determined that the elementary science tradebooks were not being checked out. She then created a system to "introduce" new books to the local children by creating bulletin boards featuring these stories. The librarian reported that they couldn't keep the books on the shelves. The success of the student's instruction and the bulletin boards increased the use of the science books by 500 percent in two months. This same student then created a guideline handout for parents, helping them assist children in choosing books and determining the appropriate level of the texts. The library staff estimated that the local community's use of the library escalated dramatically, with 45 percent more books being checked out over the two-month span of the project than in the previous six months combined.

Reflection is a major component of service-learning. Students engaged in reflection through journals, discussion boards, and group projects. Several students reported through reflection that the e-service component was their most valuable experience working with children and learning how to use community resources. The community partners were enthusiastic because they didn't have to invest additional training in the DLiTE students—students were already receiving that training through coursework. Community partners were so excited to have the extra help (especially with shrinking budgets) that they have begun sending requests for e-service projects and students to the DLiTE program.

E-Service-Learning Science Component

E-service opportunities are appropriate and adaptable to other disciplines as well. Tim Sauer worked with middle school science methods students in the summer of 2003. The students were asked to arrange, conduct, and reflect on collaborations with the local scientific community. Opportunities for summer science tutoring and for support of the Minnesota Department of Natural Resources (DNR) and local science museums were suggested. As part of the course, students were asked to volunteer for a minimum of 10 hours throughout the semester.

Several students volunteered at summer schools and camps, tutoring students in physical science and biology. Other students volunteered for plant and animal inspection through the Minnesota DNR.

Under the guidance of the local DNR, one student boated around a four-mile lake looking for Purple Loosestrife. This exotic plant can grow up to six feet above water and three feet below, producing up to 2.7 million seeds per plant. In response to concern that the exotic weed had invaded a lake treated for it in 1999, the student was asked to collect samples and press them for future inspection. Part of her responsibility was to determine the weed's appearance through her own research on the Internet. It appeared to the student that the project was a "fringe" job that the local resource officials could not tend to. Most likely, because of budget cuts, she was the only person available to carry out the task. She provided a needed service with no extra cost to the agency.

Another science student worked as a surgical technician in an operating room, examining deer brain tissue for signs of Chronic Wasting Disease. She assisted in the collection of an abnormally shaped protein called a prion, which damages brain and nerve tissue. The student removed appropriate tissue from deer heads for future microscopic inspection. She described the experience this way:

I was uneasy about this project in the beginning, but after I did it, I felt it was very interesting and fun. I learned a lot of science.

E-service in science education involves opportunities for students to meet the needs of young learners, face current environmental issues, and assist in meeting a variety of community needs. Students gained insight on local research and found that participating in the scientific process was exciting. Community members received willing volunteers who could not only assist them with tasks, but also could spread the word about their current programs. Students began to form early partnerships in the communities in which they will eventually become professional teachers.

What Have We Learned?

When conducting online courses, e-service offers excellent outreach to community organizations and fills a void in meeting community needs. As the educational paradigm shifts to more distance learning, students will be looking for ways to gain work experience and build long-lasting partnerships with their communities that will benefit their future careers. The experiences provide rich, authentic, hands-on training for students.

E-learning challenges students to think in new ways, explore new ways of problem solving, and raise critical questions about their learning and service. E-service enhances student academic experience through experiential learning that reflects the complex issues of students' future workplaces. Students get the opportunity to wrestle with complex issues right in their own communities and to become a part of the solution. These solutions are shared

with peers statewide, assisting other small towns and businesses that may have similar needs.

We believe that the introduction of e-service at institutions of higher learning is an ideal method to create a bridge between academic learning and community service. It gives individuals a chance to share knowledge and learn more about how to use each methodology while connecting with community partners and "filling the needs" they may encounter. Students can also potentially build long-lasting community partnerships that they will use when they enter their profession full-time.

Student learning is enhanced by providing multiple opportunities for practice and reflection. This same reflection is valuable in guiding students as they address community concerns. Students add to the richness of the dialogue by influencing the direction the dialogue will flow, sorting key ideas for deeper discussion, and focusing on key points. The service-learning experiences allow students not only to sharpen the focus of their own instruction and learning but also to deepen their level of inquiry through questioning, making connections, and honoring multiple perspectives.

Challenges

With this type of e-service model the largest challenge is how one college instructor can manage all the individual e-service projects that students are doing. In a traditional service-learning setting, one instructor can manage a course group that usually works only with one community partner. Twenty-five students at one site can make a greater short-term impact for the community partner and are easier to direct when they are all working on the same project. The "distributed students" challenge can also be a benefit, however. When students are working with multiple projects, they can tailor their e-service to their own major interest. When students are motivated by personal interest, learning and retention soar. Also, multiple community partners benefit from the varied e-service projects.

Because online students tend not to be the traditional age of on-campus students and usually work a 40-hour week in addition to going to school, access to a community partner can be a challenge. College instructors need to do their homework and provide a list of potential partners. By providing potential choices and targeting county and state agencies, instructors give students a better chance of connecting with a long-term community partner.

Finally, reflection can be a challenge for students. Most students are familiar with keeping a log of hours or writing short papers about their e-service experiences. Determining how the e-service is affecting the students requires deeper levels of reflection. This means the instructor needs to provide more opportunities for discussion and assign more reflective-type activities for the students completing the e-service. This takes time for the students and the instructor. We are currently developing a rubric to assess student reflections.

Suggestions

When considering the development of an e-service component for online courses, consider the following suggestions:
- Start small.
- Train the students.
- Plan for community partner contact.
- Plan extra time for unexpected outcomes.
- Include a reflection component.

Start Small. It is important to remember that online learning is new for many faculty. They need time to create new elements for their courses. They also need to be reminded to start with one class and work out all the details *before* they extend the approach to other courses.

Train the Students. Teach students about service-learning, e-service, community partnerships, and reflection as part of the course content. The instructor can start with a special icon on e-service on the home page, for example. This tells students the details—who, what, when, where, and why—of service-

learning. Then the instructor creates a discussion room where students can discuss ideas for their e-service projects. Finally, in the assignments section for the course, the instructor can have students post their completed project plans. This way, students can view other students' plans and continue to build on their own ideas.

Plan for Community Partner Contact. Find a way for community partners to contact you. It may be through e-mail or phone. Having a handbook for the students and community partners assists in determining the role of each in the e-learning relationship. Creating an online area for discussion of community partners may link similar organizations throughout the state. Partners also want to be sure they provide rewarding experiences for your students. Keep an open door to encourage their participation.

Plan for Unexpected Outcomes. Often, when students begin e-learning, they are not quite sure what to do and how to do it. This takes discussion time among students and with the teacher. Give them time, let them experiment, and if the first try doesn't work, let the students have the flexibility to revise their own plans.

Include a Reflection Component. Don't forget to provide a reflection piece so that students can look at their e-service experiences in depth. They need time to process what they are learning and to consider how to apply that learning to future situations.

Future Plans

Currently, we are developing a model where 50 percent of our DLiTE courses will contain e-service. We hope to have the model in place by the 2004–2005 academic year. We also have been asked to use this model as a statewide pilot for the Minnesota State Colleges and Universities. In addition, we have created a reflection rubric for e-service that is currently being piloted in our courses. We are interested in determining what workplace skills students develop through multiple encounters with e-service. *e*

Endnotes

1. D. Giles, E. Porter Honnet, and S. Migliore, *Research Agenda for Combining Service and Learning in the 1990s* (Raleigh, N.C.: National Society for Experiential Education, 1991).
2. B. Jacoby and Associates, *Service-Learning in Higher Education: Concepts and Practice* (San Francisco: Jossey-Bass, 1996).
3. S. B. Gleman et al., *Assessing Service-Learning and Civic Engagement: Principles and Techniques* (Providence, R.I.: Campus Compact, 2001).

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