

Incremental Integration: A Successful Service-Learning Strategy

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Many colleges and universities have embraced service learning, but the enthusiasm of administrators often exceeds service-learning application at the classroom level. For a variety of reasons, educators hesitate to implement service learning in their courses. Understanding service learning as a pedagogical tool is the key. Both students and faculty need time to learn the strategies and practices of service learning in order to succeed. This paper discusses strategies for integrating service learning into a department-wide curriculum, using a sequence of horticulture courses as an example. By increasing the service-learning component with each successive course, teachers and students gain confidence in the method and therefore are more likely to have positive results in courses with a greater service-learning component.

Support for Campus Compact, a national coalition of more than 900 college and university presidents committed to the civic purposes of higher education, has risen tremendously. There is little question service learning develops civic skills, increases disciplinary knowledge and skills, raises commitment to community, and builds career-related skills and knowledge (Gray et al., 1999). Furthermore, students develop a greater understanding of social problems as systemic and are “more likely to attribute the social problems to structural factors” (Hollis, 2002, p. 208) rather than blame those effected by the problems. For the educator, involvement in service learning frequently “renews faculty member’s enthusiasm for teaching” (Hollander, 1999, p. vi), and “brings new life to the classroom,” making “teaching more enjoyable” (Bringle and Hatcher, 1996, p. 222).

In spite of enthusiasm at the administrative level, college educators are hesitant to integrate service learning at the classroom level. Some do not fully understand or appreciate the Earnest Boyer’s definition of the “scholarship of engagement” and the benefits to learning resulting from the relationship between a special field of knowledge and professional activity (1990). Questions about academic outcomes and lack of understanding vis-à-vis how to effectively use service learning are also barriers to implementation (Abes, Jackson and Jones, 2002). Another concern among educators is the length of time required to implement a service-learning experience. Service-learning projects do require community relationships and planning; however, the experience can be as brief as a few days and still show significant changes in students (Reed, Jernstedt, Hawley, Reber, and DuBois, 2005).

Students have their own fears and misconceptions about service learning. From their perspective, the service-learning experience and what they learn, depends on whether the service learning is optional or required (Parker-Gwin and Mabry, 1998). When students are forced to participate in service learning, there is a risk of “cognitive dissociation” which may

jeopardize a project (Ender, Martin, Cotter, Kowaleski and Defiore, 2000). Students do not consider community service and service learning to be interchangeable and in one survey “were not as positive about registering for a course if they knew it contained a service-learning component” (McCarthy, 1999, p. 569).

Parker-Gwin and Mabry (1998) describe three pedagogical models for introducing students to service learning. In the first, the activity is optional for the course or the course itself is not required. In the second model, student participation in the service activity is required or the course itself is required. With this second model there can be a significant decline in the student’s evaluation of community service, personal social responsibility, and service-orientated motives. In the third model, the entire class is engaged in a community project (Parker-Gwin and Mabry, 1998).

Though prior volunteer experience is not a prerequisite for service learning, one study found that students with “prior community service experience were more likely to feel that they had something to contribute” and “felt better qualified to perform community service” (McCarthy, 1999, p. 567). It has been suggested that “a sequence of service-learning courses might maximize the potential civic and academic outcomes of service-learning [sic] for students” and build “upon their prior experiences and better integrate their volunteer activities with course concepts and issues” (Ender, Martin, Cotter, Kowaleski and Defiore, 2000; Parker-Gwin and Mabry, 1998). Similarly, research shows faculty will consider the integration of service learning into the classroom when provided the proper support (Abes, Jackson and Jones, 2002).

Service-learning pedagogy must be carefully designed and implemented in order to achieve optimal educational goals of the instructor and personal goals of the student. This paper describes the integration of service learning into the landscape management

program in the Horticulture Department at the University of Georgia, Athens, Georgia.

Service Learning as Pedagogy

The differences between volunteerism, community service, and service learning are important when implementing service learning. Pate (2002) defines volunteerism as the “engagement of students in activities where some good service or good work is performed” (p.1). A horticulture student, for example, might volunteer at a nature center to pick up trash. This activity provides a benefit, but it does not provide the student with any evidence of knowledge or skill learned, connect the student with academic resources, or provide an educational experience pertaining to the class (Bringle, Games and Malloy, 1999).

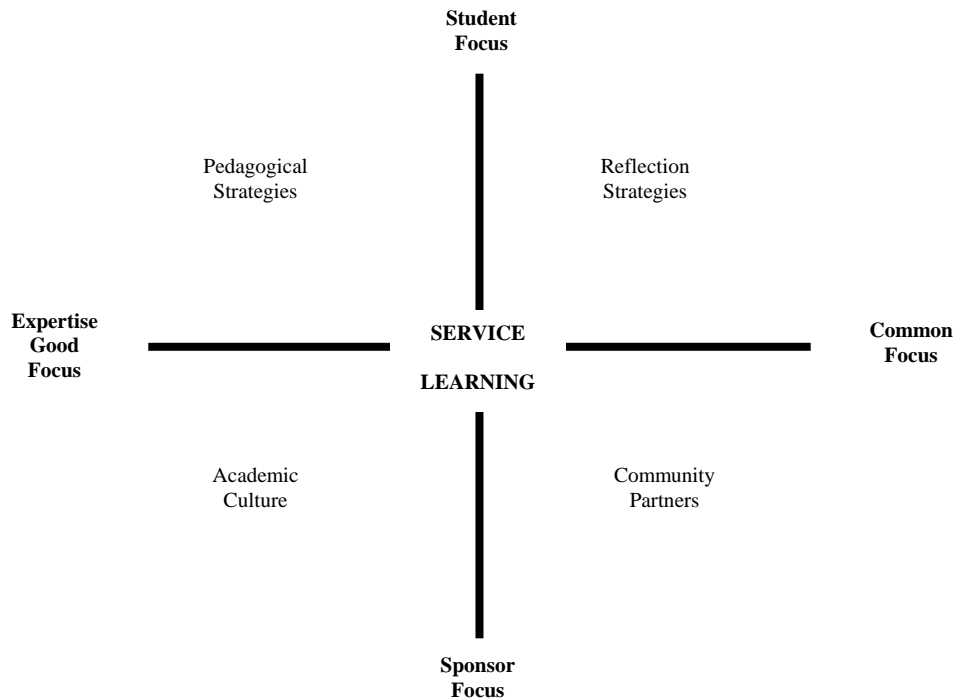
The next level of civic engagement is community service, which gets the student involved with the community, but with little or no exchange between the student and the community served and little record or reflection of the process (Pate, 2002). For example, a horticulture student might help take soil samples around a nature center and understand how the work contributes to the center’s objective of maintaining the

property. The work, however, has little to do with the student’s coursework.

Service learning is “course-based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs, and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation for the discipline, and an enhanced sense of civic responsibility” (Bringle and Hatcher, 2000, p. 274). For a service-learning activity, a horticulture student might develop a landscape maintenance plan with volunteer staff at the nature center. The student would carry the project further by writing a plan, based on course-based instruction, and training the volunteers to care for the grounds.

To explain these various levels of student engagement, Zlotkowski suggests a conceptual matrix in which the horizontal axis represents the academic presence, from expertise to concern for the common good, and the vertical axis represents the student domain, from a student-focused classroom, to a results-driven world beyond the classroom (1999, p. 101). As shown in Figure 1, the four quadrants formed by this crossing of student and academic interests can be

FIGURE 1
Service Learning Conceptual Matrix¹



¹ Note. Source: Adapted from Zlotkowski, 1999, p. 101.

labeled: pedagogical strategies, reflection strategies, academic culture, and community partnerships. In the center of the axis is service learning.

The pedagogical strategy for service learning integrates the educational goals of the course with the educational opportunities of the service project, and thus it achieves a synergistic effect that would not otherwise be obtained by completing academic and service work independently (Zlotkowski, 1999). Reflection concludes the process and allows for growth. It builds on service-learning experiences, allows the student to apply what has been learned to a “more global self-awareness,” and allows “students to transfer their learning from one context to another” (Herman, 2000, p. 114-115). With service learning, academic interests extend beyond the traditional goals of course content, student evaluation and faculty tenure. The four-quadrant model suggests a new vision for academic culture in which faculty are more “deliberate in course design” and are recognized for their “community engagement” (Zlotkowski, 1999, p. 111).

In another sense, the success of service learning depends on relationships between the community being served and the classroom (Bringle and Hatcher, 1996). The community, while a potential beneficiary of academic service learning, is also an “invaluable source

of information, evaluation, and validation of knowledge” (Walshok, 1999, p. 81).

Integrating Service Learning into the Horticulture Curriculum

Integrating service learning into the curriculum involves a pedagogical strategy that goes beyond the scope of a single course (Bringle and Hatcher, 1996). The concept of building on service experience in the classroom is supported by Parker-Gwin and Mabry (1998) who recommend sequencing service-learning courses to maximize the outcomes and build on prior experience.

To successfully integrate service learning into the landscape horticulture curriculum at the University of Georgia, a plan was developed to begin with an entry-level course and build from there. Combining the Zlotkowski’s four-quadrant matrix (1999) and the models of Parker-Gwin and Mabry (1999), an alternative model matrix is proposed in Table 1 as a way to represent the building blocks of service learning in this progression of horticulture courses. In this matrix, students move from optional volunteering to a consulting model of service learning, increasing their level of achievement.

TABLE 1
Service-Learning Matrix for Landscape Horticulture

Horticulture Course	Required Course	Service Required	Service optional	% of total class time	Percent of Grade	Outside of class (Y or N)	Part of class (Y or N)	Community interaction ¹	Informal reflection	Student survey	Journal	Reflection paper	Peer evaluation	Group presentation	Project summary	Capacity Building				
																Participation	Project completion	Technical skills	Team building	Independent work
Introductory Horticulture			x	5%	2%	Y	N	1	x								x			
Professional Practices	x	x		7%	5%	Y	N	1-4	x								x			
Landscape Construction	x	x		13%	10%	Y	Y	2	x		x						x	x	x	
Landscape Design	x	x		20%	20%	Y	Y	3	x		x	x		x			x	x	x	x
Plant Inventory		x		100%	50%	Y	Y	4	x	x	x	x	x	x	x		x	x	x	x

¹ Scale: 1 = Minimal to 5 = Extensive

Building Service Learning into a Sequence of Courses

The integration of service learning begins in an entry-level lecture course, taught fall and spring semester. Average enrollment is 260 students. A majority of the students in this course are non-majors, yet many will take additional horticulture courses. Class pedagogy includes lectures, story telling, student participation, and guest lectures. The service component is added in the form of credit for a pop-quiz in exchange for four hours of volunteer work, by either working at the nearby State Botanical Garden of Georgia or performing landscape work at a historic African-American cemetery. In this first class, service is optional with no feedback, little community interaction, and minimal capacity building.

In a sophomore/junior course in landscape business practices, the class pedagogy includes lectures, student reports, group projects, guest lectures, and exercises. Students are required to perform eight hours of service work related to the field of landscape horticulture. The work typically involves volunteering for one of the state-wide non-profit horticulture trade organizations or participating in service projects performed by other horticulture classes or clubs. When their work is complete, students write a brief summary of their experience and how it applies to their career field. The service work counts five percent toward the overall grade. This course is required of landscape horticulture majors, the service is required, and there is some reflection upon completion.

In a junior/senior landscape construction course students become involved in hands-on activities to reinforce formal classroom instruction. Each semester one to three service-learning projects are completed. These projects require the use course content such as site engineering, safe equipment operation, and installation techniques. The process typically requires the students to interact with a "client." In the fall of 2005, students constructed a stone wall and brick walkway at a nearby elementary school. The elementary students had designed an environmental learning garden and needed help installing the walk, patio, and stone walls. Leading up to the actual installation, class meetings were held in the garden area to cover the information necessary to complete the job. The college students removed the soil with an excavator, calculated the sand base required, constructed the wall, and installed the brick pavers. During this time, the elementary students watched, helped, and asked the college students questions. This project required the students to work outside of regular class time and at least one Saturday. The entire project, including calculations and reflection paper, counted ten percent toward the overall grade.

This type of service learning differs from experiential learning because there is input from the elementary school clients, and the completion of the project serves a community need while engaging the college students in a learning activity. This course is required of landscape majors, the project is directly connected to course instructional goals, and students learn technical skills while completing a project.

In a junior/senior landscape design course students from the Horticulture Department and the School of Environmental Design come together to design principles by tackling a series of increasingly challenging residential design projects. A major component of the course is a three to four week service-learning project. Students form teams, develop a landscape design, and install the landscape planting for four low-income families in a nearby community. The families are selected through a program known as Hands-On-Athens, a local non-profit organization that remodels and repairs homes for families in need. Students meet with the homeowner and develop a variety of plans. The plan that best fits the needs of the homeowner is selected, and the students install the landscape during a designated weekend. Students solicit donations and scrounge for materials. Upon completion, each student submits a reflective paper describing his or her experiences and an evaluation of team members. A survey, separate from the required course evaluation, is administered at the end of the course to evaluate lessons learned and attitudes changed. This project is on the syllabus from the first day of class, clearly stating that this is a required project with a weekend commitment. The greater level of involvement in planning the landscape design project and coordination with Hands-on-Athens coordinators and sponsors brings the student closer to the true center of Zlotkowski's matrix (1999) and provides a greater amount of capacity building than the previous courses.

A senior-level community plant inventory course is taught during a special three-week May term. This course provides training in global positioning systems (GPS) and geographic information systems (GIS) applicable to horticulture. It is an optional elective and attracts students from several disciplines. Each term a project is selected based on local need and opportunity. The first year a tree inventory was conducted of a ten-acre historic African-American cemetery in which over 1200 trees were catalogued. Students wrote individual reports on aspects of landscape management of the cemetery that were later incorporated into a final print document. The document, along with a student-developed public presentation, was presented to the community non-profit organization that manages the cemetery. The second year, a tree survey was conducted of all culturally and historically significant trees in the

community as part of a new tree ordinance. This course follows both the consulting model of Parker-Gwin and Mabry (1999) and is the closest to the center of Zlotkowski's matrix (1999) of any of the other courses in this sequence. As in the landscape design course, the service-learning component is made clear at the beginning of the course, both in the introductory lecture and in the course syllabus. A similar survey instrument is used at the end of the course to gain perspective on attitudes and reflections. Combined survey results from two years indicate that students not only liked practical aspects of the course, but also they felt the service-learning component helped them better understand the material covered in lectures and readings. The two questions that received the strongest agreement among the students asked if they thought service learning should be practiced in more classes and that the community work benefited the community. Typical comments from the surveys included: "good for those who want to make a difference," "students should be required to devote some time to the community," and "hope to see more like it in the future."

Connecting a series of courses through service learning takes time. These courses are all taught by the author, and, therefore, continuity between them is much simpler than trying to coordinate between multiple professors. Though support for service learning at the university level is strong, support at the department level is mixed. There is freedom to explore and experiment yet the interest in service learning as a pedagogy is not department-wide. Student acceptance is mixed as well. Course evaluations have remained at a high level through this process of integrating service learning, but this could be attributed as much to the hands-on nature of the projects as to the desire to serve others. It is hard to differentiate. In some instances student's attitudes have hardened, especially when judgments are made based on common misconceptions. Sensitivity training and orientation to the project have helped reduce some of the inappropriate student comments made during the activities.

As a new professor, this author has found adapting service-learning strategies relatively easy. Some of the projects have been more successful than others. It helps to realize that not every project will turn out wonderfully, not every student will share in the good feeling that comes from helping others, and not everyone helped will view the benefits of the project in the same light as the students. The service-learning projects have brought positive public awareness to the horticulture program at the University of Georgia through newspaper articles and community recognition. Much of this recognition has come from a segment of the community and press that have been hardly aware of the department.

Conclusion

This paper describes integration of service learning through a series of landscape horticulture courses; however, there is nothing discussed that is inherently unique to horticulture. In many instances, other departments have more to offer to a wider population. Even if their beliefs are not altered to any great degree, students like making a difference and applying their knowledge in a real-world situation. Almost every community has populations in need, and every field of study has something to offer. For example, history majors could help school children learn about their heritage while restoring a historic cemetery. Engineering students could learn Spanish while helping residents in a Hispanic neighborhood build a bridge over a creek that separates the neighborhood from a playground.

A curriculum-wide service-learning initiative should begin slowly, introducing students to service learning through a series of increasingly comprehensive experiences. This makes sense from a pedagogical point of view. The gradual process provides both faculty and students the opportunity to learn the process of service learning.

References

- Abes, E. S., Jackson, G., & Jones, S.R. (2002). Factors that motivate and deter faculty use of service-learning. *Michigan Journal of Community Service Learning, 9*(2), 5-17.
- Boyer, E.L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Bringle, R. G., & Hatcher, J.A. (1996). Implementing service learning in higher education. *Journal of Higher Education, 67*(2), 221-239.
- Bringle, R.G., Games, R., & Malloy, E.A. (1999). Colleges and universities as citizens: Issues and perspectives. In (Eds.) R.G. Bringle, R. Games, & E.A. Malloy, *Colleges and Universities as Citizens* (pp. 1-16). Boston, MA: Allyn and Bacon.
- Bringle, R.G., & Hatcher, J.A. (2000). Institutionalization of service learning in higher education. *Journal of Higher Education, 71*(3), 273-290.
- Ender, M.G., Martin, L., Cotter, D.A., Martsteller-Kowaleski, B., & Defiore, J. (2000). Given an opportunity to reach out: Heterogeneous participation in optional service-learning projects. *Teaching in Sociology, 28*(3), 206-219.
- Gray, M.J., Ondaatje, E.H., Fricker, R., Geschwind, S., Goldman, C.A., Kaganoff, T., Robyn, A., Sundt, M., Vogelgesang, L., & Klein, S.P. (1999).

- Combining service and learning in higher education: Evaluation of the Learn and Serve America, Higher Education Program.* Santa Monica: RAND.
- Herman, S. (2000). Reflection and transfer. In R. Gordon (Ed.), *Problem based service learning: A fieldguide for making a difference in higher education* (pp. 113-124). New Hampshire: Education by Design.
- Hollander, E.L. Foreward. (1999). In R.G. Bringle, R. Games, & E.A. Malloy. *Colleges and universities as citizens* (pp. v – xi). Boston, MA: Allyn and Bacon.
- Hollis, S. (2002). Capturing the experience: Transforming community service into service learning. *Teaching Sociology*, 30(2), 200-213.
- McCarthy, A.M., & Tucker, M.L. (1999). Student attitudes toward service-learning: Implications for implementation. *Journal of Management Education*, 23(5), 554-573.
- Parker-Gwin, R., & Mabry, J.B. (1998). Service learning as pedagogy and civic education: Comparing outcomes for three models. *Teaching Sociology*, 26(4), 276-291.
- Pate, E. (2002). *Distinctions between volunteerism, community service, and service-learning*. Retrieved Oct. 1, 2005 from <http://www.uga.edu/servicelearning/continuum.html>.
- Reed, V.A., Jernstedt, G.C., Hawley, J.K., Reber, E.S., & DuBois, C.. (2005). Effects of a small-scale, very short-term service learning experience on college students. *Journal of Adolescence*, 28, 359-368.
- Walshok, M.L. (1999). Strategies for building the infrastructure that supports the engaged campus. In R.G. Bringle, R. Games, & E.A. Malloy (Eds.), *Colleges and universities as citizens* (pp.74-95). Boston, MA: Allyn and Bacon.
- Zlotkowski, E. (1999). Pedagogy and engagement. In R.G. Bringle, R. Games, & E.A. Malloy (Eds.), *Colleges and universities as citizens* (pp. 96-120). Boston, MA: Allyn and Bacon.
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