

Enhancing Natural Resources Programs with Service Learning¹

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Efforts to strengthen public education curricula and enrich extracurricular activities can take many shapes and forms. In some communities, educators and club leaders are able to ground their programs in real world issues, teach problem solving skills by tackling a local concern, and improve the community through a “service learning” project. Teachers at Sebastian Elementary in Indian River, Florida, created these opportunities by engaging their students in maintaining a local park's natural ecosystem while exploring plant and animal identification, surveying campers, developing trail guides, and testing water quality--all in the context of language arts, math, science, and social studies.

Similarly, in Santa Rosa County, 4-H members identified and labeled plants and trees along a trail, allowing hikers to learn about and appreciate the local plant life. Throughout Florida, thousands of young people are making a difference through service to their communities, while teachers and club leaders are finding that the structure provided by service learning enables them to convert a helpful task to a meaningful learning encounter. Partnerships with resource agency staff and extension faculty can

support educators and club leaders in their efforts to conduct service learning programs.

Service learning is an educational strategy where young people learn through active participation in thoughtfully organized service experiences. These experiences meet actual community needs, have a strong learning or academic component, offer structured time for reflection, provide young people with opportunities to use newly acquired skills and knowledge in real-life situations, and foster the development of a sense of caring for others (Florida Learn & Serve, 1999).

The “service” component of service learning is any unpaid activity that assists individuals, organizations, communities, or the environment. Service in this context may involve work that requires little or no training, such as planting trees at a community park, or highly skilled work, such as monitoring water quality. The service experience may be a one-time special event, such as a cleanup day, or a long-term commitment, such as spending one morning each week in an environmental agency.

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The “learning” component of service learning involves structured efforts to promote the development of the learner, such as acquiring new skills and knowledge or reaching a deeper understanding of social problems (Gray et al., 1999). Learning may occur as part of a class, or as an extracurricular, nonformal activity, such as a 4-H club.

Community service becomes service learning when there are deliberate connections between service, learning, and thoughtful reflection.

Service learning is distinguished from volunteerism by its emphasis on personal growth and its direct connection to learning. It often uses the environment and environmental issues as the vehicle to promote learning and development.

Service Learning Framework

The service learning model can be captured in a simple framework: Preparation, Action, Reflection, and Recognition. This framework (Duckenfield and Madden, 2000) assists both the novice and advanced educator in producing educational experiences for youth that will have lasting and meaningful impact.

Preparation consists of learning experiences prior to the actual service. Youth are involved in identifying and analyzing a problem, selecting and planning a project, and receiving appropriate training and orientation.

Action is the service itself; it needs to have academic integrity, be meaningful to youth, provide ownership, have adequate supervision, and be appropriately challenging. The action should evolve from the preparation activities.

Reflection enables youth to think critically about their service experience. A structured activity is provided where participants reflect through discussion, reading, and writing about the service experience.

Recognition allows youth to be applauded for their contributions. It is also an important time for closure, particularly when direct service with others will end.

The Importance of Reflection

Reflection helps make the experience of service an educational one. While preparation, action, and celebration are more common elements of educational program, reflection requires additional explanation. In the course of a service project, young people will find plenty of chances to use knowledge, build skills, and try new things. By giving them time to think about what they are doing and present their thoughts through writing, speaking, art, or performance, they will begin to realize what they are learning. Reflective activities can vary from session to session and should occur regularly throughout the project, not just at the end. Leaders may want to provide feedback to youth as they share their thoughts, and help them use the opportunity to strengthen or clarify their values. Questions can help guide the reflection process: What did you find out? How did this make you feel? What did you find hard about this process? How can this skill help you in the next three months?

Lewis (1991) points out that reflection is an ongoing process and experiences can be shared in variety a of creative ways:

- Speaking: group discussion, speeches, reports, interviews, and debates;
- Writing: journals, newspaper articles, brochures, essays, and proclamations;
- Art or performance: video, posters, role plays, skits, flags, dance, scrapbooks, songs, and cartoons.

Benefits of Service

There is one salient finding of virtually every study on service learning: program participants, teachers, leaders, parents, and community members overwhelmingly agree that their programs were worthwhile, useful, enjoyable, and powerful learning experiences (Conrad & Hedin, 1991). Research about service learning indicates that participating students have a much better ability to understand the complexity of social problems compared to students who have been in traditional classes (Eyler & Giles, 1999).

Communities also benefit from youth contributions through service learning programs: parks are cleaned, trees are planted, trails are maintained, flyers are distributed, events are held, and water quality is monitored. Indirect benefits for communities come in the form of new ideas, enthusiasm, empowerment, and the positive attention that is given to young people. When community leaders publicly appreciate the energy and activity of youth and when youth invest in improving their community, long term benefits in self-esteem and sense of place are gained.

Important Roles

Extension agents, natural resource specialists, parents, and volunteers can play a critical role in the success of a service learning project, serving as either leaders or partners. A leader of an after-school youth service group should support and facilitate the youngsters' decisions, guide their discussions by suggesting they collect more information, and help them make sense of the information they have collected. The leader role also includes providing exercises to help youth learn skills to improve group communication, decision making, and information collecting. One exciting aspect of service learning is that leaders won't know exactly where a project will take them. Effective leaders function as facilitators who cheer youth on, allowing them to identify problems, figure out solutions, and carry out their own plans of action.

School teachers may seek assistance for a school-based project and request a partnership with extension agents, natural resource specialists, or other experts. In this capacity, partners help provide specific information about the issue or project, link the youth to community resources, expose young people to multiple points of view about their project, and support the educator in tackling this potentially new endeavor. When working with a public school teacher, agents and volunteers should keep the goals of both the school curriculum and service learning in mind as the project grows. Partners can assist the teacher in identifying ways the project can support the Sunshine State Standards.

Examples of Service Learning Projects

Service learning projects have the potential for exploring cultural, social, and political topics in addition to science, while practicing skills in writing, reading, artistic expression, and mathematical analysis. Most projects can help integrate environmental education across the curriculum and are not easily pigeon-holed into one subject area.

Since 1994, the Indian River County School District and the St. Johns River Water Management District (SJRWMD) have been partners in Project Legacy. High school students throughout the county have assisted the SJRWMD land manager in planning, designing, and developing public access to 1,300 acres of upland and marshland. Through this stewardship, students have conducted field research, designed and constructed walking trails, written reports, made presentations to the SJRWMD and conservation groups, and promoted awareness throughout the community.

Sarasota Bay's marine habitat was impacted by dredging projects. To provide habitat for marine life, members of a 4-H club in Sarasota, Florida, partnered with the Reef Ball Development Group to construct and deploy 350 to 400 pound concrete reef balls. Their reef balls added to the 2,000 other reef balls in Sarasota Bay that serve as an artificial reef. After helping to make the reef balls, 4-H members rode jet skis to assist in the towing and release of the reef balls at designated areas.

Students at Eastside High School in Gainesville, Florida, received real-life lessons in the stewardship of Gum Root Swamp, a wetland that filters water flowing into Newnans Lake. Students collected water quality and quantity data, expanded plant and animal species lists, created kiosk displays, maintained nature trails, and constructed two bridges. Back in the classroom, students reflected on their work as they monitored and revised their management plan and prepared reports for the St. Johns River Water Management District. Students have also been instrumental in the excavation of prehistoric canoes in Newnans Lake.

Pine Jog Environmental Education Center in West Palm Beach is one site for the national program, Earth Force. Pine Jog staff support service learning programs with more than a dozen schools. Teachers and other group leaders receive training to investigate local environmental issues, explore possible solutions, and develop and implement action plans. Students have been involved in monitoring the health of a local canal, creating butterfly gardens, turning a pond into an outdoor classroom, and creating a successful campaign to protect trees in the urban landscape.

Suncoast Earth Force was launched in July 2000 to serve the Tampa Bay area. As an affiliate of Earth Force, Suncoast provides youth with meaningful educational opportunities to serve their community while engaging in service learning, environmental education, and civic education. Youth in the area have created a model of a pond ecosystem for the community, designed a curriculum on fish sustainability, increased their school's energy efficiency, improved the quality of city water, and worked toward passage of a wildlife corridor ordinance.

To learn more about service projects that your group can do and about resources to support service learning in Florida, contact:

Give Forests A Hand - County Extension Offices or Martha Monroe, School of Forest Resources and Conservation, University of Florida, PO Box 110410, Gainesville, FL 32611-0410, 352-846-0878, <http://gfah.sfrc.ufl.edu>

Give Water A Hand - Environmental Resources Center, University of Wisconsin, 216 Agriculture Hall, 1450 Linden Drive, Madison, WI 53706, 800-928-3720, <http://www.uwex.edu/erc/gwah/>

Florida Learn & Serve - 345 S. Magnolia Drive, Suite D-11, Tallahassee, FL 32301, 850-487-0262, <http://www.fsu.edu/~flserve/>

Florida Commission on Community Service - 444 Appleyard Dr., Tallahassee, FL 32304-2895, 850-921-5172, <http://www.fccs.org/>

Pine Jog/Earth Force - Carrie Mohanna, College of Education, Florida Atlantic University, 6301 Summit Boulevard, West Palm Beach, FL 33415, 561-686-6600, <http://www.earthforce.org/pinejog/>

Suncoast Earth Force - Patricia Yarnot, 701 Channelside Drive, Tampa, FL 33602, 813-273-4507, <http://www.earthforce.org/suncoast/>

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