Improving Student Learning Outcomes from Civic Engagement

The Value of Building Community Partnerships

Emilie Stander, Assistant Professor, Environmental Science
Raritan Valley Community College, Branchburg, NJ
Why Integrate Service Learning into Classroom Instruction?

- **Benefits for students**
  - Improves student learning outcomes and success/completion
  - Provides structure for students to apply classroom learning in real world situations
  - Informs student choices regarding major and career pathway
  - Students develop technical and soft skills valuable for their professional development
  - Students develop professional networks
  - Students begin to see themselves as “agents of change”

“Community engagement enhances curriculum, teaching and learning, prepares educated, engaged citizens, strengthens democratic values and civic responsibility, addresses critical societal issues, and contributes to the public good.” (Carnegie Foundation for the Advancement of Teaching)
Why Integrate Service Learning into Classroom Instruction?

• Benefits to society
  • “…mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity” (Kapi‘olani Community College website)
  • Fosters sense of civic responsibility and community engagement among educated members of the general public
  • Students who participate in service learning are more likely to become involved in campus and community organizations

“Active citizens seek to build, sustain, reform, and improve the communities to which they belong, which range from small voluntary associations to the world. Active citizens deliberate with peers to define public problems and then collaborate with peers to address those problems.” (Levine 2013)
Early Attempts to Incorporate Service Learning into Environmental Science Courses

• Offered service learning as extra credit option in one introductory non-majors course and one upper-level majors course
• RVCC’s Service Learning coordinator, Lori Moog, provided introduction and resource materials, including list of participating local organizations
• Students approached local environmental organizations on the list, completed 15 hours of service, and wrote a short reflection essay to earn extra credit
• Illustrative activities: trail maintenance in forest preserves, removing invasive plants, directing visitors to appropriate trails
RVCC’s Office for Service Learning and Community Engagement

Annual Program Participation:
• 1,000 students perform community service
• 75 faculty offer service learning
• 80 courses from all academic disciplines
• 250 community organizations
• 30,000 hours of service provided to community
• $800,000 donated as economic equivalent to community

Recognitions
• 2006 – 2015 President’s Community Service Honor Roll with Distinction for nine
• 2015 Carnegie Re-Classification for Community Engagement and 2008 Carnegie Classification awarded by the Carnegie Foundation for the Advancement of Teaching
Community Issues Addressed

- Adult Education
- Animal Welfare
- At-Risk Youth
- Child Care
- Diversity
- Disabilities
- Domestic Violence
- Elderly
- Environment
- Health
- Hunger/Homelessness
- Incarcerated
- Legal Aid/Law
- Literacy
- Mentoring/Tutoring
- Substance Abuse
- Women
Community Organizations Served

• Food banks and soup kitchens, meals-on-wheels programs
• Senior citizen centers, assisted living facilities and adult day programs
• Nursing homes, hospitals and clinics
• Churches, synagogues, mosques, temples
• Youth-serving organizations (YMCA, Scouts)
• Libraries, community centers and civic organizations
• Day care centers and pre-schools
• K-12 schools and after-school programs
• Domestic Violence, homeless and animal shelters
• Police and Fire stations and rescue squads
• Nature conservancies, farms, watersheds and wildlife refuges
• Disability centers, veterans programs and women’s organizations
• National and international organizations
• Correctional Facilities, probation departments and divisions in court houses
Outcomes of Early Attempts: Mixed Bag

• Approximately 12 students participated out of 180 total students (7%) over three semesters

• **Student perspective**
  • Students did get good professional experience and an appreciation for civic engagement
  • Service learning seen as an “extra”, not connected to their classroom experience
  • Wide range in quality of reflection essays
  • Generally positive reaction from students

• **Faculty perspective**
  • No interaction with participating organizations
  • Insignificant or nonexistent role in fostering student involvement and learning
  • No interaction among students, did not contribute to cohort building
  • No intentional connection to academic course concepts

• **Organization perspective**
  • Students were just ordinary volunteers
  • Typically organizations did not view themselves as contributing to building capacity of students
Teagle Foundation Grant Project
Fall 2013 – Fall 2016

• **Title:** “Student Learning for Civic Capacity: Stimulating Moral, Ethical, and Civic Engagement for Learning that Lasts.”

• **Overview:** Raritan Valley Community College (RVCC) in Branchburg, NJ was one of six community colleges nationally awarded a Service Learning grant from the New York-based Teagle Foundation. The three-year, $8,500 annual grant to each college enabled six community colleges to work together to assess students learning outcomes from their service learning projects.

• **Big Question:** “How do we build our commitment to civic and moral responsibility for diverse, equitable, healthy, and sustainable communities?”

• **Cross-Disciplinary:** At RVCC faculty from environmental science, education, nursing, and business participated; additional disciplines at the other colleges

• **Participating Colleges:** Raritan Valley Community College, Kingsborough Community College, Queensborough Community College, Mesa Community College, Kapi‘olani Community College, and Delgado Community College
Service Learning Integrated as Core Element of Course

- ENVI 102 first offered in Spring 2015
- Offered once per semester to one section of 20 students
- Introductory environmental science course with lab
- General education lab science course and science elective
- Required for environmental studies (A.A.) and environmental science (A.S.) majors
- Service learning makes up half of lab instruction

ENVI 102 students learn to identify stream macroinvertebrates to infer water quality conditions.
Fundamental Tension in Introductory Environmental Science Courses

• Large proportion of course content involves defining and describing environmental problems, which raises awareness

• Initially many students feel outraged, enjoy the camaraderie of collectively “piling on”

• Eventually though, many get beaten down and demonstrate or express:
  • Fear
  • Negativity
  • Hopelessness

• The challenge is to channel the outrage and anger and apply it beyond defining the problem to *personally engaging in problem solving*

Brianna and Nicole plant tree seedlings as part of a forest restoration project
Service Learning Mapped to ENVI 102
Course Learning Objectives

• understand ethical issues and situations related to environmental problems (GE-NJ ER);

• use technological resources to find scientific data and evidence needed to answer questions about local and/or global environmental quality (GE-NJ IL);

• students will apply the scientific method to analyze environmental problems and draw conclusions from data and evidence (GE-NJ3);

• evaluate and think critically about information related to the scientific, political, economic, social, and historical dimensions of environmental issues and/or solutions (GE-NJ IL);

• prepare written reports and/or poster presentations of environmental and sustainability research/practice in a technical format (GE-NJ 1)
Service Learning Used to Model and Illustrate Key Course Themes

- Individual vs. institutional contributions to causing and solving environmental problems
- Both types of contributions are explored through classroom activities and homework assignments
- It’s not a dichotomy, but rather a continuum
- What better way to elucidate this message than to model it in practice? Through service learning:
  - Students engage in positive contributions to solutions on an individual and collective basis
  - Students collaborate with professionals from institutions in identifying and implementing solutions

ENVI 102 students work with Americorps Ambassador Alexandra Walczak to conduct a stream assessment
Service Learning Integrated into Design of ENVI 102

• Projects focused on solutions to water quality problems on campus and in the local community

• Students received rain garden and stream assessment training from Americorps volunteers embedded in two local organizations

• Students completed 20 hours of service dedicated to rain garden maintenance, stream assessment, stream and beach clean ups, green stormwater design, etc.

ENVI 102 student Jordyn weeding the rain garden in Somerville, NJ alongside Americorps volunteer Justin Beslity
Assessment Questions

Students responded the following questions in an end-of-semester service learning reflection essay:

• **Statement of the Issue/Activities:** Identify the issue you focused on and explain how it relates to diversity, equity, health or sustainability. Describe the activities you engaged in that addressed this issue. Discuss the impact your activities had on the issue.

• **Academic/Applied Learning:** Describe 3-5 central course concepts or theories that engaged you and deepened your understanding of the issue you focused on. Describe how you applied them in your activities. Explain how your activities deepened your understanding of these course concepts or theories.

• **Change:** Explain how your coursework and activities have shaped your personal, academic and/or career goals. Explain how you have come to see yourself as an agent of change as a result of your coursework and activities.

• **Moral and Civic Engagement:** As an informed individual and citizen, discuss the issue you focused on as a public problem. What elements of unfairness or injustice does the problem have? Do you believe more people should care about the problem? Why or why not? As an informed individual and citizen, discuss possible solutions to the problem.
Commitment/Action: From the list below, select three actions and discuss in detail the actions you will take to reduce the impact of the problem.

1. Support people in my family and my friends who are affected by the problem.
2. Take another course to gain a new perspective on the problem.
3. Join, start, or lead a campus student group working on the problem.
4. Serve at a community-based organization working on the problem.
5. Convene a dialog with policy-makers working on the problem.
6. Advocate with public officials and legislators who work on the problem.
7. Fund-raise to support non-profit organizations working on the problem.
8. Complete a degree
## Standardized Rubric to Evaluate Student Essays

<table>
<thead>
<tr>
<th>Prompt / Level</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Statement of the Issue/Activities:</strong> Identify the issue you focused on and explain how it relates to diversity, equity, health or sustainability. Describe the activities you engaged in that addressed this issue. Discuss the impact your activities had on the issue.</td>
<td>Does not meet level one</td>
<td>Vaguely identifies the issue.</td>
<td>Briefly or superficially identifies the issue.</td>
<td>Identifies the issue with some depth.</td>
<td>Identifies the issue with depth.</td>
</tr>
</tbody>
</table>
|                                                                                 | Vaguely defines diversity, equity, health or sustainability. Vaguely explains the relationship between the issue to diversity, equity, health or sustainability. Briefly describes at least one specific activity that addressed the issue. Briefly explains some impact the activity had on the issue. | Briefly or superficially defines diversity, equity, health or sustainability. Briefly or superficially explains the relationship between the issue to diversity, equity, health or sustainability. Briefly describes specific activities (at least two separate/different activities or at least two instances of one continuous activity) that addressed the issue. Briefly explains general impacts those activities had on the issue. | Defines diversity, equity, health or sustainability. Generally explains the relationship between the issue to diversity, equity, health or sustainability. Clearly describes specific activities (at least three separate/different activities or three instances of one continuous activity) done by the writer that addressed the issue. Clear explains specific impacts those activities had on the issue. | Defines diversity, equity, health or sustainability. Specifically explains the relationship between the issue and diversity, equity, health or sustainability. Clearly describes specific activities (at least three separate/different activities or three instances of one continuous activity) done by the writer that addressed the issue. Clear explains specific impacts those activities had on the issue. |"
Assessment Methods in My ENVI 102 Course

• Individual reflection essays standardized through the Teagle project
• Group papers, poster presentations, and powerpoint presentations
• Students receive credit for their 20 hours of service
• Assessment tools addressed both course learning objectives and larger Teagle project objectives

Three ENVI 102 students pose in front of their rain garden poster at the RVCC STEM Poster Session. The students prepared a working model of a rain garden as part of their presentation.
Results: Meaningful Partnerships Reap Benefits

• Faculty, community organizations, and students interact directly throughout the project
• Americorps volunteers get credit for the time they spend with volunteers and the partnerships they create with educational institutions
• Students are trained by young professionals in technical methods and skills that are in demand
• Multiple expert voices in the classroom and in the field
• Value of informal interactions
  • Students hear about Americorps volunteers’ college and post-college experiences
  • Americorps volunteers talk to me about future grad school plans and research ideas
  • Students observe and take part in interactions between me, employees of community organizations, and Americorps volunteers

Employees from the NJ Water Supply Authority and an Americorps Volunteer from the Raritan Headwaters Association teamed up to organize a stream restoration effort at RVCC with 30 RVCC students and faculty during Earth Week.
Academic Results from Formal Assessments

• Students are making the connection between classroom learning and service learning activities
  • They can articulate the problem and how their service learning activities contribute to solutions (average rubric score 2.6 out of 4 during Fall 2016, 2.5 over 3 semesters)
  • They can relate their service learning work to course concepts covered during lecture (average rubric score 2.4 during Fall 2016, 2.7 over 3 semesters)
  • Many students remarked that their understanding of the academic concepts improved because they could see how the concepts were applied in real world situations

ENVI students participate in Sandy Hook beach clean up organized by Clean Ocean Action.
Personal Results from Formal Assessments

• Students are experiencing personal and professional growth
  • Hands on experiences give students a taste of what it’s like to be an environmental professional
  • Many state the experiences have influenced their choice of major, career path, or course selection (average rubric score 2.6 during Fall 2016, 2.5 over 3 semesters)
  • Many have changed personal habits and behavior and express a desire to influence family and friends to do the same (average rubric score 2.55 during Fall 2016, 2.4 over 3 semesters)
  • Many have expressed a desire to join the Environmental Club or volunteer with local environmental organizations

ENVI 101 and 102 students participated in an on-campus clean up to prevent campus trash and recyclables from washing into the campus stream.
In Students’ Own Words

• Personal/professional growth:
  • “The opportunities that I received to take action...really opened up my eyes to the change I could make in the future as an engineer.”
  • “I feel much more confident pursuing job/career opportunities thanks to real life knowledge I gained from the course and service learning. It helped me understand the different types of careers and the reality of the type of work involved in environmental sciences.”

• Applying academic knowledge to real world situations:
  • “The service learning opportunities made me realize I work better and harder when I spend time outside and get hands-on with the information I study in class, and that helped me pick my transfer school.”

• Seeing themselves as agents of change:
  • “I can now consider myself an agent of change because of the work I’ve done in my service learning activities, the personal changes I’ve made in my life thanks to the knowledge I have gained from the coursework, and through the knowledge I can now spread to promote change in my family and friends’ lives.”
Stumbling Block: Civic and Moral Engagement

- Students struggled to articulate their activities in the context of broader civic and moral issues
  - Difficulty explaining water quality as a public issue (average rubric score 1.9 over first 2 semesters)
  - Difficulty identifying issues of unfairness or injustice related to water quality (average rubric score 1.8 over first 2 semesters)
- Students seem more comfortable reflecting on their own experiences rather than what others in their community may experience
- My efforts to address this during the Fall 2016 semester:
  - During the lecture unit on water quality we specifically make the connection between sources of pollution and effects on drinking water supplies
  - Discuss environmental injustice (i.e., Flint, MI; e-waste recycling in Asia; etc.) during multiple course topics
  - Invited a guest speaker to discuss environmental justice projects in Camden
- Scores improved to 2.4 and 2.8 during the Fall 2016 semester
Potential Future Directions

• Build relationships with additional environmental organizations
  • Give students more choices in terms of the activities in which they participate
  • Keep groups smaller so that contributions to final products are more equitable and meaningful

• Directly address issues of civic and moral engagement early and often in the classroom
  • Ask students to write about these issues earlier in the semester related to multiple environmental topics
  • Invite guest lecturers and organize field trips to better illustrate local environmental justice issues related to water quality

• Tailor the reflection essay prompts to ENVI 102 now that the Teagle project is completed
  • Specifically write the questions about water quality and the rain garden and stream assessment activities they participated in to avoid problems interpreting language

• Assessment of course learning objectives
  • Ongoing; expected completion: August 2017
Key Elements That Facilitated Success

• **Institutional support** through RVCC’s Office of Service Learning and Community Engagement
  • Maintains strong relationships with a wide range of community organizations
  • Performs institution-wide assessment and bureaucratic functions
  • Additional professional voice explaining benefits to students

• **Cultivating meaningful partnerships** with local community-based organizations
  • Identify organizations that are committed to education, outreach, and capacity building
  • Identify projects that benefit the organizations even if students underperform

• **Community of practice** among faculty across disciplines
  • Developing standardized assessment tools across disciplines
  • Presenting together at workshops
  • Sharing our approaches and experiences
Acknowledgments

• Lori Moog, RVCC Service Learning Coordinator
• Sue Dorward, RVCC Sustainability Coordinator
• Brian O’Rourke, RVCC Facilities Director
• Heather Desko, Sarah Helble, Laura Dillman, Jon Dugan, Justin Beslity, Katee Meckeler: New Jersey Water Supply Authority
• Angela Gorzycya, Alexandra Walczak, Mara Tippett, Carmela Buono: Raritan Headwaters Association
• Bob Franco and Krista Hiser, Teagle facilitators, Kapi’olani Community College
• Teagle Foundation

NJ Water Supply Authority Americorps volunteer Jon Dugan (left), RVCC Sustainability Coordinator Sue Dorward (right), and two ENVI 102 students discuss how to fix the RVCC rain garden’s drainage problems.
Contact Information

Reach out to me with follow up questions after the workshop!
Contact info:

emilie.stander@raritanval.edu
908-526-1200 ext. 8344

RVCC’s service learning program:
https://www.raritanval.edu/community-resources/service-learning-program
Contact: Lori Moog, Director of Service Learning and Community Outreach
lori.moog@raritanval.edu
908-526-1200 ext. 8284
Questions and Discussion

• What questions do you have about how to integrate service learning into your courses/curriculum?
• What questions do you have about assessing student learning outcomes?
• What would you like to know that I haven’t addressed?
• Something else?

Raritan Headwaters Association Americorps volunteer Carmela Buono (left) trains ENVI 102 students in conducting a stream assessment.