Service-Learning in the STEM Disciplines

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“Through [my service-learning experience] I have seen firsthand the benefits that can come from researchers and science students stepping away from their benches and going to work in the surrounding areas for the betterment of the community, themselves and the world. It’s exciting. It’s exhausting. I can’t wait to start again.”
What is Service-Learning?
Academic Service-Learning

“Service learning is a course-based, credit-bearing educational experience in which students:

• participate in an organized service activity that meets identified community needs, and
• reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility.”

Connecting the Missions
Four Fundamental Components of Service-Learning

- Academic Material
- Critical Reflection
- Relevant Service
- Reciprocity
Reciprocity: Community & University benefit
What about for the instructor?
What are the benefits of service-learning for students?

• Improve students’ understanding of the academic content and how it relates beyond the classroom

• Improve students’ understanding of community and of civic responsibility

• Improve students’ personal outcomes, such as cross-cultural competence, teamwork, and critical thinking
What do our students themselves tell us?

• “The service-learning projects help you to better understand the subject being taught.”

• “This is where the ‘real world’ experience comes from that I believe is more valuable than pure lecture style classes.”

• “Getting involved in the community has inspired me to seek out a more active role in volunteer and charitable opportunities. It has helped me feel more connected with this town and the community, even after five years here.”

• “This class prepares you for life.”
• “Service-Learning is an essential component to fully understand oneself. I have truly enjoyed all that this class has offered me, both in education and experiences.”

• “It has made a huge impact on my college career and the relationships I've built. I feel so fortunate to go to a University that extends me this opportunity!”

• “I really enjoyed the class. [It] helped me develop interpersonal skills and leadership skills.”

• “Service Learning courses should be a requirement for all students.”
The Benefits of Service-Learning for Graduate Students

• Preparation as future faculty
• Interdisciplinary understanding
• Learn to communicate relevance of STEM research to public
• Enhancement of grants/research
But, a caveat…

- These benefits and learning outcomes are true for GOOD QUALITY service-learning, not just for service in general…
Relevant Service should be...

organized

based on community need

related to learning goals

“Service as text”
Relevant Service

• Many different ways to set up
  – Required vs. optional service activity
  – Group/individual project
  – Inside/outside class hours
  – Short- or long-term
  – Direct work with community members
  – Indirect work (like policy/advocacy)
Project FOCUS: Fostering Our Community’s Understanding of Science
Sample Service-Learning Activities
Sample Service-Learning Activities
Sample Service-Learning Activities
UGA Campus Kitchen

- Multi- and interdisciplinary service-learning and student-volunteer based initiative
Academic Learning

• What kinds of learning outcomes or goals did these aforementioned service activities support?
Critical Reflection:
Linking service & learning
How Can You Get Started? IPARC/D:

• Investigate
  – Community need and potential partners
  – Learning objectives

• Plan
  – Logistics, transportation, timing, resources, roles…
  – What students need to know to be successful

• Action: the service activity!

• Reflection
  – Before, during, and after

• Celebration/Demonstration
  – Evaluation
  – Sharing with the community
What About Your Course/Students?

- What Learning Outcomes could be enhanced with community-based work?
- What Community Need(s) could be addressed by your students’ skills?
“…I don’t see two institutions when I look at the university and the surrounding community- I see two species. There is no difference between these institutions and the bacteria/squid relationship, in terms of what each has to gain from a potential community-university symbiosis.”
Additional Questions and Ideas?
Thanks!

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