



# Service Learning in the Geosciences: Opportunities for Innovation

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## Points I Will Touch On:

- ✓ Impacts on Students: What We Are Learning
- ✓ Impacts on Partners: What We Are Learning
- ✓ Increasing Recognition that Not All Service Learning is Alike
- ✓ Increasing Recognition that We Need to Look for Service Learning Opportunities
- ✓ Increasing Recognition that We Need to Prepare for Service Learning Challenges
- ✓ Increasing Recognition that Service Learning is an Opportunity to Use All of Our Skills at Innovation

# Impacting Students: Why Service Learning?

Service learning is being adopted as a means of

- ✓ Increasing depth of student content knowledge
- ✓ Increasing student capacity to retain content knowledge
- ✓ Increasing transferability and flexibility in using content knowledge
- ✓ Increasing student understanding of the complexity of contexts where their content knowledge is needed

# Impacting Students with Service Learning

Service Learning Has Been Shown to Have the Potential to:

- ✓ Impact Student Attitudes toward College and Learning
- ✓ Impact Student Attitudes toward Self
- ✓ Impact Student Social Skills
- ✓ Impact Student Skills of Interest to Employers
- ✓ Impact Student Commitment to Civic Engagement



# Impacting Students

And Service Learning's positive impacts on students can be heightened in multiple ways.

For example:

When students assist in the selection of the issues that will be addressed in their service Learning projects, such involvement has been found to result in stronger impacts.



# Impacts for Partners

- ✓ Positive Impacts Frequently Found: Students bring fresh, useful knowledge
- ✓ Through Service Learning in the Form of Citizen Science: Students bring resources to help solve problems
- ✓ Increasingly recognized that Partnerships are important for positive effects of service learning
  - ✓ Partnerships lead to greater benefits and deeper impacts
  - ✓ Partnerships lead to greater reciprocity in the campus-community relationships
  - ✓ Communities need to be seen as more than just placement sites for service learners
  - ✓ All of this represent a shift from conducting research on communities to conducting research and activities in collaboration with communities



## The Upshot

Service learning is not a “drop in” course component where one can take exactly what someone else has done and use it unchanged with one’s own students.

Instead you will need to reconfigure it to make it work for your discipline, your context, your students and your community.





## Going Forward

It is not enough to provide people with abstract, overarching rules (i.e., find the right partner, find the right topic). These rules fall short in capturing the actual complexities encountered under real world conditions. Abstract rules do not provide pathways for developing effective service learning in complex contexts.





## Innovation is Essential

One need not start from scratch. There are many examples from other disciplines; however, these examples will rarely be a perfect fit for your context, your students, your discipline, your course, your community, and your partner. Innovation will be essential as you go forward in designing the forms that service learning could take in the geosciences.





## What You Will Find in the Paper:

Fifteen Common Challenges, Ways that Faculty Have Found to Overcome Them, and Questions to Ask About Using These Examples to Envision Service Learning in the Geosciences





Challenge 1: 'I wasn't trained to do service learning and I have no idea where to start'

Challenge 2: 'But how would I find a topic for service learning?'





Challenge 3: 'I have no idea how to find community partners.'

Challenge 4: 'But how do I interest students in service learning?'





Challenge 5: 'I know it can be helpful to tap into ongoing streams of activities but I can't imagine how to do this.'

Challenge 6: 'But my students are just starting to learn. What do they have to contribute? How do I find a topic that is right sized for where my students are in the learning process?'





Challenge 7: 'My goal is to ensure my students develop deep knowledge of the discipline. How do I keep service learning from watering down the development of complex knowledge?'

Challenge 8: 'But my students have busy lives and don't have time for service learning.'





Challenge 9: 'But my classes are too large. I can't see how I can possibly do service learning.'

Challenge 10: 'But my courses are online: I guess I can't do service learning in my course.'





Challenge 11: 'But many problems are bigger than my discipline and need interdisciplinary approaches.'

Challenge 12: 'But this all seems overwhelming to do by myself. What kinds of support structures do campuses have?'





Challenge 13: 'But my students won't be staying in the area—Can they use what they learn?'

Challenge 14: 'But how do all these parts come together?': Bringing it all together in team-based approaches'





Challenge 15: 'How do I bring all of the goals together and do so in a way that calls attention to this important service learning work?'



# The Challenges

1. The Challenge of Getting Started
2. Identifying Appropriate Topics for Service Learning
3. Finding Community Partners
4. Getting Students Interested
5. Tapping into Ongoing Streams of Activities
6. Identifying What Novice Students Have to Offer
7. Helping Students Develop Deep Disciplinary Knowledge
8. Students have Busy Lives and Little Time for Service Learning
9. Dealing with Large Classes
10. Dealing with Online Classes
11. Fearing that Problems are Bigger than What the Discipline Can Offer
12. Finding or Creating Support for Service Learning
13. Bringing All the Parts Together
14. Linking to High Profile Events that Matter to Partners

# The 'Take Homes'

Existing examples of service learning are best used as sources of ideas rather than exact modules that can be slotted into your course. Ask yourself:

- ✓ How might you use these examples in the geosciences?
- ✓ Which parts could work for your courses, context, and community?
- ✓ What obstacles and barriers would you need to overcome?
- ✓ What would be your next steps?

# Finding Resources in Unexpected Places

- ✓ Campus Entities with Histories of Doing Work Bearing Some Similarities to Service Learning
- ✓ Organizations and Movements that Bring Together Universities and Community Members
- ✓ Toolkits
- ✓ Websites
- ✓ Conferences
- ✓ Journals
- ✓ Crowdsourcing



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