



How Service-Learning Can Support the Practice of,
and Education About, Collaborative Natural Resource
Management

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Background

- Collaborative Natural Resource Management (CNRM) is increasingly popular
- Many agree that social capital is critical to successful CNRM

Background

- Calls for NR professions to actively support the development of social capital in CNRM
- Addressing these will require:
 - Effective methods to develop social capital for natural resource goals
 - NR students to be trained in those methods
- Service-Learning may address both these needs
 - Hands-on, collaborative, reciprocal
 - Pervasive in NR programs

The Big Picture Question

Is service learning a way to simultaneously construct social capital and teach NR students about successful CNRM?

Case study

- Harwood Union High School:
 - Located in South Duxbury, VT
 - Fuels for Schools Program facilitated switch to wood chips and interest in sustainable forestry
 - Owns 180 acre forest – no management plan
- Formed a partnership with UVM

Goals of the Harwood Union Forest Project

- Collaboratively write and implement a forest stewardship plan
- Develop forest-based education opportunities for Harwood Union students



Service-Learning Achievements

- Towards a stewardship plan:
 - Online survey of current use and desired future use
 - Forest inventory
 - Trail mapping
 - Establishment of long term forest health monitoring plots
- Towards increased forest-based education
 - Lessons/units in:
 - Forestry technical skills
 - GIS mapping
 - Forest pathogens
 - Watershed science
 - Workshop for teachers
 - Project Learning Tree
 - Tech workshops

Case Study Questions

- What role did service-learning play in the development of social capital among members of the Harwood Union Forest Project?
- How did participation in the project impact University of Vermont students' understanding about collaborative natural resource efforts?

Methods

- Data collection
 - Participant observations – 16 months
 - Archival documents – meeting minutes, e-mails, student homework, student presentations
 - Interviews – 8 individuals closely involved with the Harwood Union Forest Project
- Data analysis
 - Thematic analysis – emic codes first
 - Chronological comparison
- Member checking

Limitations

- Single case study
 - Not generalizable
 - Hard to replicate
- Reflexive, participant researcher
- Less than two years of data – don't know long term impacts

Preliminary Findings: Social Capital

- Increased “ties” among Harwood Union affiliates
- Increased “ties” between Harwood Union and UVM
- Increased “ties” between Harwood and other groups in the Mad River Valley
- Evidence of trust
 - Access to previously “guarded” materials
 - Shared decision making

Preliminary Findings: NR Education

- All university students described learning about collaborative NR projects
- Not all students made connection between what they learned and CNRM
- Most university students interviewed became interested in environmental education/
community outreach as part of this project

Next Steps

- Finish analysis
 - Apply existing frameworks
 - Compare chronologically
- Member checking
- Write, write, write!
- Distribution
 - Academic journal article
 - Register with Conservation Almanac

Take Home Message

Food for thought:

- Should we, as NR educators, teach students about social capital development in collaborative natural resource management?
- Is service-learning one way for us to do that?

Thanks

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Questions?

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