Teaching environmental communication through service learning

Marc J. Stern, PhD
Assistant Professor
Department of Forest Resources and Environmental Conservation
Virginia Tech
Key challenges in Service Learning

- Representation
- Responsibility
- Readiness
- Time
  - Instructor
  - Students
Single projects

• Relatively safe
  – With reasonable expectations

• Potentially high payoff
Immersive strategies

- Cliff jumping
- (Blind) top roping or rappelling
- Hill climbing
- Toddler’s swim lessons
FOR 3524: Environmental Education
Service Learning

Virginia Tech students provide weekly afterschool environmental education programs in partnership with 4-H to local elementary schools.

- Training in class management, environmental education, communications, social psychology, teaching and learning theory
- Certification in Project Learning Tree, Project WET, and others
- Students write reflective essays, participate in reflective discussion, develop environmental curricula, and craft their own teaching philosophies
Dangling the Rope

- Year One
  - Cliff pushing

- Since
  - More like blind top roping or rappelling
Outcomes

• Standard evaluations (3 pt. scales)

Self-assessed gains in . . .
– Gains in knowledge, theories, etc.: 2.7
– Problem solving abilities: 2.7
– Appreciation of subject: 2.9
– Effort required: 2.5

• All above average
Tailored evaluations

• 92% expressed a gain in confidence
• 96% thought more about the futures as a result of this class than other class
• 96% learned more about themselves
• 12% felt uncomfortable
  – Only variable that changed after first year (decline)
Year to year

- Less discomfort
- All other student outcomes similar
- Positive feedback from principals and parents

“My daughter Gwen LOVED the program . . . I think it was her favorite activity at school this year.

“[My daughter is] always so excited to tell me about the many different things she has learned from the activity. This program has exposed her to new things, that’s always great. Thank you to all the individuals who were involved!

“I am writing to thank you for sending Meghan, Katie, and Cameron to Harding Avenue Elementary School this past semester . . . The students really learned a lot about the environment and had a great time.”
“I personally like being thrown off a cliff and feel like too much guidance defeats the purpose of finding your place and role as a teacher through this experience.”

“I think that I learned more from the cliff-dangling end of the spectrum. I would argue that you definitely provided us with tools . . . [course components listed] . . . I learned the most with the children teaching me and me learning on the job. It forced me to develop leadership skills and boosted my level of confidence – I can see the difference in how the kids related to me between now and the beginning of class.”

“I would have liked more of a safety net at the beginning but overall I prefer the middle of the road approach. I would not want the teacher coming in everyday to watch over our class. Just supplying us with enough tools to help us develop our program . . .”
My personal reflections

• Give ‘em “the Beta” and a safety net
  – Baseline content
  – Groups

• A little panic appears to be a good (or at least benign) thing

• Time and pedagogy
  – No more time commitment than a regular course
  – Discussion balances lecture
  – With specific context in mind, lessons are applied immediately
Students’ parting thoughts

“Every part of it [the class] was useful and great”
– Junior Natural Resources Conservation major

“Our learning was strongly based in the reality of the teaching world.”
– Sophomore Wildlife Science major

“This was the best class I have taken while at Tech.”
– Junior Natural Resources Conservation major