



Teaching environmental communication through service learning

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Key challenges in Service Learning



- Representation
- Responsibility
- Readiness
- Time
 - Instructor
 - Students

Single projects

- Relatively safe
 - With reasonable expectations

Welcome to the Lower Jungle Trail at Mountain Lake Conservancy!

The trail begins at the end of the hotel parking lot and goes for one mile to the picnic area. It is a leisurely hike easily accessible to children and senior citizens. This trail provides a beautiful scenic walk through the National Forest and overlooks Mountain Lake. Along the trail, different tree species are identified by red markers. The maps that we include have additional markers shown below.

Each marker will have a number that goes along with your brochure.

As you walk along the trail, think about the interactions between the plants and animals and how everything in nature is balanced. Inside, a cut out of the Mountain Lake Conservancy map is included to guide you on your walk.

Enjoy your walk and keep your eye's peeled for wildlife!

Mountain Lake Conservancy
 115 Stone Gate
 Pendleton, Virginia 26106
 Phone: 560-626-7121 EXT 444
 Fax: 560-626-7121
 Email: MLG@MountainLakeFord.com
 Website: <http://www.mountainlakeconservancy.org>

- Potentially high payoff

CAVES: An underground exploration

In southwestern Virginia there are thousands of caves underground. You are probably standing on top of one now. Caves are home to many organisms including bats, fish, salamanders, insects and small mammals.

What does a cave look like?

Some caves are very dark and have stalactites and stalagmites hanging from the ceiling. The Virginia big-eared bat uses caves as a place to roost and hibernate. They are also used for winter storage. They are protected by the Virginia Department of Game and Inland Fisheries and the U.S. Forest Service.

Where does the Virginia Big-eared Bat live?

The Virginia Big-eared Bat lives in caves and hollow trees. They are found in the mountains of southwestern Virginia. They are also found in the Shenandoah National Park and the Great Smoky Mountains National Park.

THE VIRGINIA BIG-EARED BAT PROTECTS YOU WHILE YOU SLEEP!

Bats can catch up to 1000 insects each night in one hour and are present in our homes. This means they can help protect you from annoying insects and diseases. Bats are also important for pollinating and spreading seeds of plants in the wild.

What does a bat look like?

Bats are the only mammal that can fly. They are not insects. Like most 1% of bats are nocturnal, and usually do not bite humans unless they are sick. Bats are not actually fully blind. They have small eyes and use echolocation to find their way.

These bats are fun to watch!

Bats are fun to watch in their own right. In fact, they are one of the most interesting animals in the world. They are also one of the most important animals in the world. They are also one of the most interesting animals in the world.

Save Virginia's State Bat!

The Virginia big-eared bat was listed as a threatened species in 1987 and became Endangered in 1997.

Why are these bats so important?

Bats are important to the ecosystem for the reason that they eat insects. Bats are also important for pollinating and spreading seeds of plants in the wild.

How to help a bat?

Don't touch a bat. Bats are not always friendly. If you touch a bat, you could get sick. Bats are also important for pollinating and spreading seeds of plants in the wild.

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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.”

The cliff strategy

“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