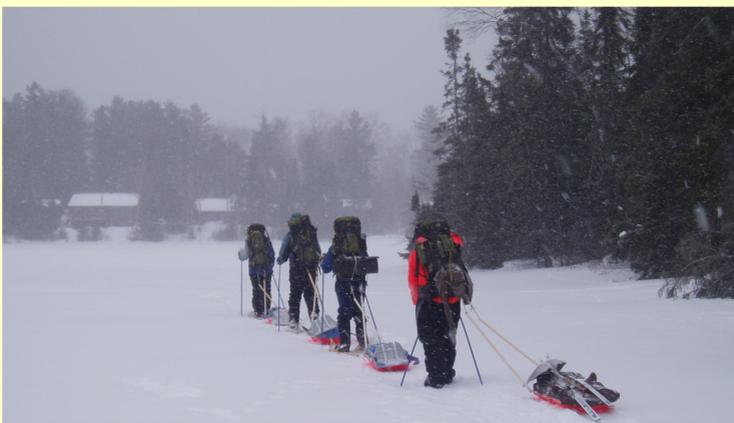




Being Outside:
CSBSJU students celebrating the beautiful fall weather in Red Wing, Minnesota. They were on a rock climbing and caving trip in Fall 2009.

Abstract:

It is important for every U.S. citizen to understand that nature offers more than oil for driving cars or trees for making paper. Each individual must see that the outdoors offers a place for learning, adventure, and reflection. To take advantage of nature's knowledge, each city, suburb, town, and community must implement a system that is based on the wants and needs of the local citizens. **What is the ideal educational system that will enable children to experience the outdoors, build an ecological relationship, gain physical skills, and work on team building and personal growth?** Through research based on personal experience, a review of the history of environmental education in the U.S., case studies which show the benefits of learning in the outdoors, and an examination of three Minnesota programs, a solution was found. **The most viable way to enable and encourage children to build a holistic relationship with nature is through community-based Nature Programming, which refers to systems of education, such as nature centers, environmental learning centers, and after school programs.**



Winter Camping:
Red Wing Environmental Learning Center students cross-country skiing home after a six-day winter camping trip in the Boundary Waters. During the trip, they explored the area on skis and snowshoes, built and slept inside quinzees, cooked over a campfire, learned about the animals and plants of northern Minnesota, and survived in -25°F weather.

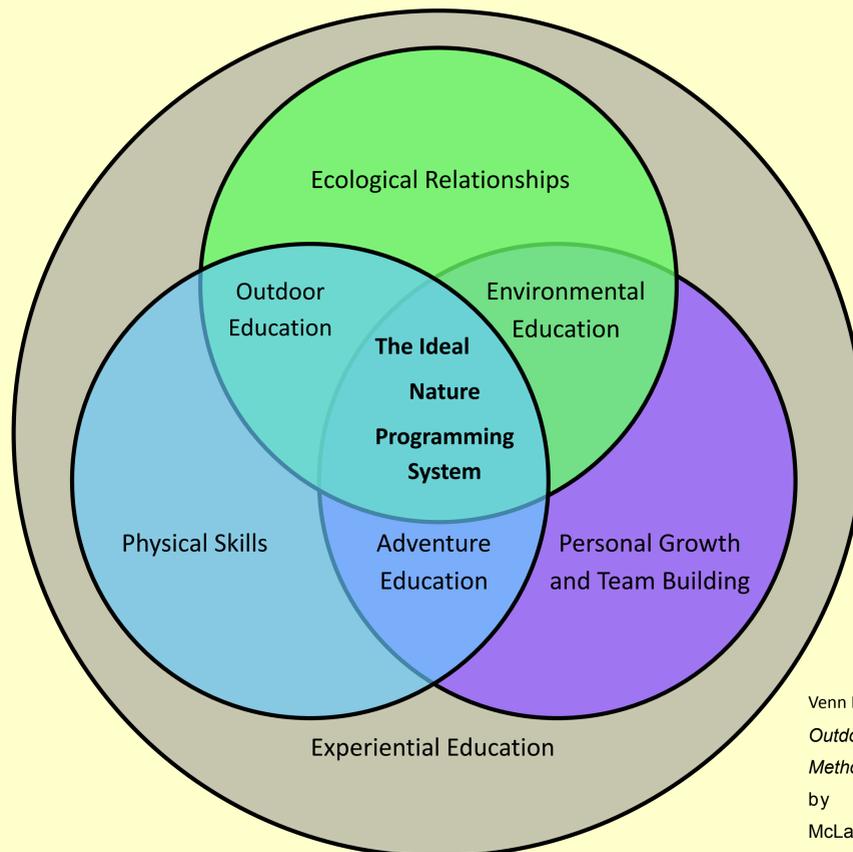
NATURE'S KNOWLEDGE: ENABLING STUDENTS TO LEARN OUTSIDE

Laura Wildenborg ENVR 395 Faculty Advisors: Dr. Derek Larson and Dr. Jean Lavigne



Fossil Hunting:
Noah displays his enthusiasm for mud on a fossil hunting trip to Lilydale Park with the Lake City Environmental Learning Program. He learned about the ancient sea that had once covered the land creating the fossils of sea creatures that were exposed by the Twin Cities Brick Co. which mined for clay for over 100 years.

The Ideal Nature Programming System



I hear and I forget,
I see and I remember,
I do and I understand.
- Chinese Proverb

Venn Diagram adapted from *Outdoor Education: Methods and Strategies* by Gilbertson, Bates, McLaughlin, and Ewert.

Research Methods:
The Ideal Nature Programming System is based on a comprehensive literature review of the four pedagogies and different styles of implementation. The history, structure, philosophy, and funding of three Nature Programming systems in Minnesota were studied, including the Lake City Environmental Learning Program, the Red Wing Environmental Learning Center, and the Wolf Ridge Environmental Learning Center. Much of the research for these came from personal experience as a student and an instructor for the Red Wing ELC, as the summer instructor for the Lake City ELP, and an interview with the assistant director of the Wolf Ridge ELC. These three programs were chosen because they were developed by and for their local communities and incorporate all four pedagogies. They are each the ideal nature programming system for their community.

The four pedagogies of Nature Programming:

- Experiential Education**
Method in which students learn by doing.
- Outdoor Education**
Occurs in backyards, city parks, abandoned lots, rivers, or "wilderness" settings.
- Adventure Education**
The facilitation of healthy risk-taking through activities such as rock climbing or a high ropes course.
- Environmental Education**
Concepts that will help attain an understanding of natural and social systems and how they interact.

Conclusion:
Because nature programs are community-based, they require that community members are involved in the planning process and find the initial funding to start the program. By showing parents that nature programming is a safe environment for students to learn about and explore their local environments, they will enroll their children and the program will grow. This holistic, educational approach will develop confident, responsible citizens who care about the natural world and their local communities.



Caving:
Caving in southeastern MN is just one of the 30 summer programs offered by the Lake City Environmental Learning Program. Students tour a commercial cave to learn about cave formations and caving etiquette and then explore a local cave wearing helmets, knee pads, and headlamps.

Thanks to all of the individuals who have contributed to my love for the outdoors. Keep Exploring.

