



Educational Geocache Experience



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Abstract

This project focused on the need for an inclusive place-based ecological education experience. By placing multiple geocache around Lake Swano, it is accessible by classrooms, homeschools and the general public. I hope to advertise this project in the local paper and pass the information along to schools for possible fieldtrip use. Each geocache can be found with a classic GPS unit or a GPS app on a smartphone using coordinates listed in the educational material about the watershed that is place within each geocache.

Introduction

The goal of this project is to create hands on educational material for local schools and the local community. The project is a continuation of an idea formulated last year to create an educational geocache experience. I will place multiple geocaches around Lake Swano with educational materials inside each cache. A geocache is a small hidden capsule that can be located using given coordinates and a GPS or phone. The materials inside each cache will contain information about the watershed, what comprises a watershed, and how to keep the watershed healthy.

Lake Swano is a man-made lake located on the Grays Harbor College campus. Alder Creek runs through Lake Swano and into the Chehalis River Basin. If the community does not understand their local environment, they may not understand the need for a healthy environment or how to keep their environment clean and thriving. An unhealthy watershed leads to contaminated water running through local lakes and streams, such as Lake Swano and Alder Creek. Water from Alder Creek runs from Lake Swano to the Chehalis River. The goal of this project is to help people understand that pollution in any of these waterways can create an unhealthy environment for local wildlife, people, and harming tourism and therefore economy in the area.

Considerations for Future Work

- Bilingual educational material within each geocache (the information in currently only available in English).
- Educational materials about the watershed to send to schools to enhance the learning experience.
- Modification of geocache materials to include literacy supports for struggling readers.
- Presentation of multiple cultural views within geocache materials, including addressing concepts of nature, people, and their relationship.

Geocache Creation Process

The idea of an educational geocache around Lake Swano was formulated last year by another intern for the Grays Harbor College Fish Lab. I began my work on this project by reading David Gruenewald's *Foundations of Place: A Multidisciplinary Framework for Place-Conscious Education*. This solidified the decision for an outdoor, place-based experience in order to "enable students and teachers to perceive places that are alive in the human and more-than-human world" (Gruenewald, 2003). Upon reading *The Changing Social Spaces of Learning: Mapping New Mobilities*, the need for a more complete outdoor classroom presented itself. Placing educational materials describing the surrounding area brings more to the table for a more diverse nexus of information at each geocache, essentially creating an outdoor classroom space. Last year's geocaches were stolen, lending to a need for a change of materials. Each cache will now be attached to each site with bolt and chain.



Pictured above is a view of Lake Swano from the future location of a geocache. One can see logs that have been fallen by beavers, which they will be reading about in the flyer shown below once they find and open the cache. There will be a similar flyer within each geocache about a topic that is relevant to the geocache location. This sort of exposure gives people the experience needed as mentioned by Gruenewald to better understand their environment.

LEAVE IT TO BEAVERS

Beavers are mammals that have big yellow buck teeth and soft, brown, waterproof fur. They have a large, flat, brown tail that they use to swim. Beavers live in freshwater areas all around North America, even Lake Swano! Beavers live in homes called lodges. Lodges are built next to beaver dams and are made with sticks and mud.

Did you know?

Beavers are nocturnal. That means that they are awake at night and sleep during the day.

What's that word?

Mammal is warm blooded animal that has hair or fur and gives birth to live babies as opposed to eggs.

WHY ARE BEAVERS IMPORTANT TO THE WATERSHED?

Beavers play many important roles in an ecosystem. Beaver dams create wetlands where they stop or slow the flow of water and many different animals rely on wetlands to survive. When beavers change the ecosystem around them, it leads to more plant and animal biodiversity in the area.

FUN FACT!

A beaver's big front teeth never stop growing! All of the wood that they gnaw on keep them from growing too long.

BUSY BEAVERS!

Beavers alter their surroundings to make the land work for them, just like people do! They build dams and lodges with downed trees and branches. Beaver dams can split rivers or creeks down the middle and even stop them in their tracks. If you look around Lake Swano today you may see a beaver dam or trees that beavers have gnawed down!

SAY WHAT?!

Beavers are in the rodent family! They are related to rats and mice! Beavers are the largest tree of rodent in America.

Literature Review

For the majority of youth in the United States, most purposeful learning currently takes place inside of a classroom. But is this the most conducive place for learning? Gruenewald points out many problems with exclusively indoor education. The current processes of learning without properly addressing places: "(a) limit the diversity of experience and perception;" and "(b) cut children, youth, and their teachers off from cultural and ecological life" (Gruenewald, 2003). Without the place-based experience, people are beginning to "deny the relevance of nonhuman nature" (Gruenewald, 2003). This can lead to a poorly educated population with a lack of understanding regarding their environment and where their resources come from. This is critical information to expanding a healthy community and solving ecological problems that will arise in the future.

My geocache project takes the learning process outdoors and attempts to address the current lack of first-hand experience and ecological life within today's education as pointed out by Gruenewald. The Lake Swano geocache and the educational materials placed within will help to reinforce what is being taught and will lend to the application of the learned materials because of its onsite learning experience. Much research maintains that place-based education is a critical part of development and learning. David Gruenewald posits that regular educational experiences outside of the classroom, more specifically outdoors and "perhaps especially in urban places, can both broaden our experience as human beings and help us to perceive what else is out there" (2003). A critical part understanding and accepting places outside of the classroom is placemaking. This involves the realization of what a place is in its entirety and what that place can be. "Ecological philosophers Swimme and Berry (1992) observe that, although as human beings we cannot make a blade of grass, we might not have any grass at all unless it is acknowledged and cared for by us" (Gruenewald, 2003). This is the essence of placemaking, a place becomes what it is deemed by humankind. Suppose we deem something a reserve, than it will become a national or state park. On the other-hand if we deem a patch of forest a parking lot, then it will soon become a cement lot. Therefore it is necessary to foster young, well-educated placemakers in order to preserve our environment and to create a healthy and thriving world in the future. One can only become a well-versed placemaker once they have properly and fully experienced said places.

The issue of limited "diversity of experience and perception" (Gruenewald, 2003) can be addressed while working with students in a productive place based learning environment. Kevin M. Leander, Nathan C. Phillips and Katherine Headrick Taylor discuss what makes a classroom a conducive place for learning, considering classroom as a nexus; a place where all of the necessary tools can come together to create a diverse environment. The knowledge and experience of educators and children alike, "with their associated histories and geographies" (Leander, K. M., Phillips, N. C., & Taylor, K. H. 2010) is what makes up a classroom. Acknowledging and utilizing these experiences and their corresponding knowledge along with immediate surroundings can maximize the learning experience. Bringing together place-based education, with its abundant resources, and the diverse experience and knowledge of those involved in the learning process can create an optimal outdoor classroom.

References

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- Gruenewald, D. A. (2003). Foundations of Place: A Multidisciplinary Framework for Place-Conscious Education. *American Educational Research Journal*, 40(3), 619-654. doi:10.3102/00028312040003619

Photo credit: Paige Pierog

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Contact Information

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The photo above will be on the back of the flyer to the right along with coordinates to the next geocache. Interesting photos like this one will be placed on the back of each flyer to capture the attention of the reader and to give an up close visual of the content described on the flyers.