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## Earths Classroom

### **Introduction**

The purpose of this paper is to report my findings on a “behind the scene’s” look into an environmental education center, specifically Earths Classroom. Within this paper I will be addressing themes of; about the organization, about their programs, contexts of the facilities, evaluation and assessment criteria’s, learning models used, and wish list items the facilities would like to acquire.

### **About my Interviewee**

Mrs. Jody Miles was gracious enough to let me interview her, and my findings from our interview will be expanded upon within this paper. Mrs. Jody’s job title at Earths Classroom (EC) is the Co-executive director. As the Co-executive director Mrs. Jody is constantly busy. She does a lot of the administrative work from scheduling groups to writing grants, but by far her favorite aspect of the job is being one of the main educators. “I love being out in the field working with any age students and teaching. I do a little bit of everything, even maintenance. We are a very small center, and I get my hands in all aspects of the job from cleaning to administration,” said Jody.

Jody attended Northland College, a small private environmental school, in northern Wisconsin where she majored in Natural History in Outdoor Education and minored in Native American studies. Northland College is also where Jody met her husband Bill. They were both in the same field of study.

After graduation Jody went directly into the field and started working for the DNR in Missouri doing ecological research and education on endangered species. Jody also attained her burn boss certification while working for the DNR, which she now uses to implement controlled burns at Earths Classroom, which I will discuss later. Jody stated,

*“That during my time with the DNR I found that my husband and I started formulating our own philosophy of education that used the resources as our actual blackboard to teach from. Instead of cartoonizing nature from what we saw others using we wanted to get any age participant in the resource, to see the resource, and then give little skits about the real life that these species exist in.”*

From this philosophy Earths Classroom was born.

**About the Organization:**

Earths Classroom is located in central Missouri, specifically in Rosebud, Missouri near the Merrimac River. Bill and Jody Miles founded Earths classroom in 1999. Earths Classroom is a 501c3 non-profit. Mrs. Jody’s grant proposals account for nearly 30 to 35% of the funding at Earths Classroom the rest of the funds come from annually held fundraises and the actual fees associated with their programs.

Currently EC has 3 employees Bill and Jody full-time as the main educators and the third, a part-time position. They occasionally hire interns. When hiring interns or staff Mrs. Jody stated,

*“When interviewing we go through our philosophy with them and feel out their specific philosophy and communication skills. Also knowing good hard information is a plus, if you don’t know the information having the skills to find the information. Mainly we look for those that have an intense passion for giving a general understanding of a lot of different topics. We look for students who are open to having good information on a broad scale. Who have an innate understanding of a broader picture.”*

## About the Programs

When Earths Classroom began a majority of the programs that are currently run were all initially offered. With the exception to wild caving and the ecology canoe trips, which were offered about 5 years later, once EC received the proper funding. The most popular programs that EC offers are the Native American Indians, Aquatics because students get a more hands on approach, and Missouri mammals because of the skulls and furs that the students get to handle. Because Mrs. Jody's minor was Native American Indian studies, this is by far her favorite program to teach. Mrs. Jody's mother has actually participated in many Native American Indian ceremonies, so they have her lead many of these programs.

During the summer months, the caving and daylong ecology canoe trips are highly popular. EC utilizes the caves in Merrimac State Park. Merrimac State Park has a total of 47 caves. Several of these caves are dated and state permitted. Mrs. Jody stated,

*"We use these caves very respectfully to take educational groups spelunking. We take them back to specific location to teach them about the rock formations, the chemistries of the rock, and how it affects life in the cave. So the adventure isn't just about the adventure. We use these adventures skills to completely surround our students in the education realm. The educational background is totally surrounding us we don't have to bring any props."*

The daylong ecology canoe trips take place on the Merrimac River. The river, which is located about 30 minutes from EC, is now the most biological river in the state. Mrs. Jody says,

*"We use the river as our living laboratory to collect different examples, to share these examples and their unique natural history and the interrelationships between geology and its life, the plants and the flora and fauna with everything connected back to the geology of the river."*

Before putting anyone in canoes, they start off with what EC calls the “Art of Canoeing.” The Art of Canoeing is an hour-long intro, where 6 different strokes are taught. This starts at 8:30 then by 10 they are on the water. From 10 to 5:30 they are paddling, using nets, aquariums, and snorkeling gear provided by EC to observe species in their natural habitat.

Clientele at EC is primarily upper elementary school students ranging from 3<sup>rd</sup> grade to 5<sup>th</sup>. In the spring from April to May EC is loaded with field trip after field trip of elementary students. Program goals at EC are based around Freeman Tilden’s 6 main principles of interpretation, which EC using mainly to bring a sense of provocation to their audience. Mrs. Jody states,

*“We want to provoke our audience to be inspired to want to learn more or want more by the end of the program. By the end of the program the biggest draw is to emotionally inspire our audience to have a desire to want more.”*

Earth Classrooms mission statement unfolds the goals within the programs. “To use experiential education to advance awareness, understanding, and appreciation of ecology, cultural history, and their interrelationships.”

In relation to the mission statement, Mrs. Jody stated,

*“First you must bring awareness to the topic your talking about, then you interpret that species so that participants have an understanding of why the species even exists there, then with that understanding they then have an appreciation for that species existing.”*

So in simpler terms the goal of most programs is to bring about an *awareness* of the topic to the audience then to create a more clear *understanding* of the topic, then to end with bringing an *appreciation* to the topic.

## **About the Context**

Earths Classroom sits on a 179-acre plot of land and is a very minimalistic education center. When acquired there was a 15-acre grazing area for cattle, this area has since been converted to fit the needs of the facility to house a natural ecosystem. The facilities themselves are also very minimalistic. Onsite facilities include; an indoor pavilion, a large outdoor amphitheatre, a storage shed for all the hands on educational equipment, passive solar restrooms, covered recycling, compost, and trash facility. EC also has a few miles of hiking trails that lead to the ecologically filled prairie the herpetology pond, and to the streams where the aquatics program take place.

Earths Classroom has a few very impressive natural ecosystems. The aforementioned herpetology pond use to be the watering hole in the cattle pasture, it is now a fishless pond that holds multiple species of salamander, frogs, and toads. The 15-acre cattle pasture has been converted to a natural prairie and now houses 50 – 60 native prairie plants. Also there is a natural stream that holds multiple minnow species, crawfish, and multiple macro-invertebrates.

In the last 15 years EC has implemented an exotic species eradication program eradicating Bush Honey Suckle and Japanese Honey Suckle by use of chainsaw, ripping them out of the ground, or applying round up. Also they have implemented a burn plan! Jody took what she learned while at the DNR and brought the burn regulations to EC. Out of the 179-acres they implemented a regular burn cycle of about 80 acres every 2 – 3 years. The focused burn was specifically for the Oak Hickory Forrest, which has now been converted to Open Woodland forests.

## **About Evaluation and Assessment**

Earths Classroom has a board of directors that is made up of several teachers who bring their class to EC on a regular basis. The board of directors updates EC as to whether or not they are meeting the teachers intended outcomes for the class. Also for any public programs, non-elementary students, EC has an evaluation form that they ask participants to fill out on their own time, if they feel inspired. This evaluation form asks participants if the program was age appropriate, and if their

newly found awareness, appreciation, and understanding for the program topic would lead them to make any future changes in behavior.

### **About the Environmental Education (Models)**

Earths Classroom utilizes Freeman Tilden's 6 principles of Interpretation as their teaching models in all of their programs. Tilden's 6 principles are as follows:

("Tilden's Principles)

1. Any interpretation that does not somehow relate what is being displayed or being described to something within the personality or experience of the visitor will be sterile.
2. Information, as such, is not interpretation. Interpretation is revelation based upon information. But they are entirely different things. However, all interpretation includes information.
3. Interpretation is an art which combines many arts whether the materials presented are scientific, historical or architectural. Any art is in some degree teachable.
4. The chief aim of interpretation is not instruction, but provocation.
5. Interpretation should aim to present a whole rather than any phase.
6. Interpretation addressed to children should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.

Earths Classroom feels that it is very important to use the real resource and to be very familiar with the resource you're educating about. You don't want to bore your participants with facts. EC designs their programs to start out with what they term a "POW". A POW is a story or a hook that gets the participants emotionally involved in the programs. These stories emotionally captivate the audiences. Because they are captivated by hearing them it gives learners the desire to go out and find these adventures themselves. From that point on we move to our theme statement of the topic.

## **Discussion of Models implementing at Earths Classroom**

### **Problem and Inquiry based**

Problem and Inquiry based learning is “A teaching method where teachers guide students through a problem solving process which includes identifying a problem, developing a plan, testing the plan against reality, and reflecting on the plan while in the process of designing and completing a project” (Wurdinger & Carlson, 2010, Chp3). Although EC may not call their teaching model problem or inquiry based, I believe that they do use some aspects of this model when teaching. During the aquatics program Mrs. Jody will begin with the POW to bring awareness to the 2 – 3% amount of fresh water on the earth and how much of it humans use. So right there she is identifying a problem. She then asks if it is wise for humans to pollute this resource? Here she is reemphasizing the issue ultimately leading up to asking students to make a plan for solving the problem then thinking forward and assessing the intended results. This process is evidence enough to suggest that informally problem and inquiry based learning is being used.

### **Project Based learning**

Project-based learning is a process that, “emphasizes student interest rather than following a fixed curriculum; emphasizes a broad, interdisciplinary focus rather than a narrow discipline-based focus; uses direct, primary, or original sources rather than texts, lectures, and secondary sources; emphasizes data and materials developed by students rather than teachers” (Wurdinger & Carlson, 2010 Chp4). At EC during the aquatics program Mrs. Jody says,

*“Once it gets to the point in the program where we give the students the tools; nets, sans, and aquariums, I tell them to go and find as many different species as they can.”*

This is evidence enough of project-based learning. This project is teacher controlled, but the students lead. Everything the students bring back from the stream and put into the aquarium is brought up and talked about.

### **Wish list**

Mrs. Jody is very proud of the environmental center that her husband and herself have built over the years. As of April 1, 2014 EC has worked with 45,500 participants since 1999! Currently EC has an enormous amount of elementary students coming out for day programs, which is great. But Mrs. Jody would like to start reaching more high school students. She says,

*“The high school students are at the age where they are about to enter college and then the workforce, we have the opportunity to bring an awareness to any number of issues, hoping they will pursue that program area of study while in college, and then take that passion with them into the work force! It’s a wonderful feeling to know that we are making a difference by raising an awareness.”*

Building a high school program is a huge desire at the moment for Earths Classroom. Also Mrs. Jody’s wish for herself and all educators across the nation is that resources like books, research, and conferences would continue to become more readily available and accessible to the outdoor community. As educators we must constantly be learning and updating our knowledge base.

### **Closing**

It was great to get a first hand look into some of the “behind the scenes” aspects that Earths Classroom goes through on a daily basis. This class and my interview alike have brought a greater awareness of the environmental issues at hand and the many teaching models used to raise the intended awareness. Although Earths Classroom doesn’t specifically call their teaching models by names discussed in our class, I believe they use multiple aspects of project based and problem an



Inquiry based learning to raise *awareness, understanding,* and an *appreciation.* In closing Mrs. Jody left me, and all students, with a recommendation as to our future,

*“As you continue in your studies don’t become so specialized. Once you become specialized you get caught up in that one specialty and in a sense you have a blinders on to the rest of the great amount of information out there. Become diversified.”*