

**Acceptable Losses? Working to Save Project WOLF:
An Example of Project-based Learning through Collaboration across
the Community of Learners**

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Abstract

This article is a narrative account of the author's experience with a project-based learning. The project that is the subject of this article was inspired in response to inadvertent damage to an outdoor educational area. The author asserts that what appeared to be a crisis became an appropriate learning opportunity for project-based learning.

Introduction

A former colleague called me, and before even saying "Hi," began talking in a panic-stricken voice, "They've plowed up Project WOLF!" she said shrilly. What are we going to do?"

Project WOLF was our outdoor laboratory, a twenty-three acre site of natural prairie, transition zone undergoing succession from grassland to woodland, and mature woodland flanking a perennial stream. It lies adjacent to the school grounds of Manhattan High School, and while it belongs to the city (Manhattan, Kansas), it has served as an accessible outdoor lab since the 1960's, kept intact by a loose agreement between city management and the school district. Used widely by public school classes and the university as well as ordinary citizens, it is a rare piece of relatively undisturbed natural ecosystem in an urban landscape.

Sunset Zoo wanted a service road that did not impact the flow of traffic and visitors on the main entrance road, so a city employee in creating a roadway on the north edge of Project WOLF got a bit carried away and plowed the entire grassland, leaving some undesirable woody invaders. What was so galling was the lack of communication with the school district about the change: my friend was in charge of the spring field trips in which her special project class known as Wide Horizons led local elementary classes into the natural area of Project WOLF. They were to begin the following week, and now had to be cancelled. Fearful of losing this valuable outdoor classroom, we decided to meet with the zoo director, the director of parks and recreation, a range management expert from the university, and the high school principal.

Because I teach at the university now, and am not directly and continuously involved with Project WOLF except when my job description allows me to create a field

experience with some students, I involved myself from the viewpoint of providing a service for the community of learners: how might we document the value of Project WOLF and, further, how could we protect it for future stakeholders?

The initial meeting was fraught with tension, as emotions were still running high, but it led to a new understanding of the importance of natural areas and how they are cherished by the community. The range management expert felt that it was a valuable resource and would be hard to duplicate by attempting to create a prairie in a different location on the zoo property, a suggestion made by the zoo director. It was generally agreed that the wholesale plowing of the grassland was ill advised, an accident and that nothing more than the service road would be added and that the grassland would be allowed to recover. And, it did! By the following spring, much of the grass, whose root systems penetrate the soil for six feet, and many forbs (wild flowers which grow with grasses) had responded to the rains and the sunlight and had covered the scars of the bulldozer. Now was the time to showcase its value by documenting its resilience as a natural ecosystem.

Because so many diverse people had a vested interest in Project WOLF, I initially attempted to have budding professionals in the College of Architecture take it on as a landscape project, but none seemed to be willing to take it on. After taking a project-based learning class from Dr. Diane McGrath (Kansas State University's College of Education), I thought Project WOLF would be a perfect topic for a creative, collaborative, place- and problem-based project that would have authentic meaning for those involved. Tish Simpson, the Ecology and Wide Horizons teacher, three of her Wide Horizons students (all girls), a media center person, and a technology teacher, one of his students, and I worked out a strategy, following the format discussed in the project-based learning (PBL) class. It included: the essential question, the stakeholders, the problem, the project, the authentic audience, and other related activities. Below, I have elaborated on the components of the process:

Background and The Problem

An outdoor learning laboratory and a unique section of grassland was inadvertently damaged during the construction of a road. What can be done to address this issue?

The Essential Question

"How does an outdoor (natural area) laboratory meet the needs (aims, goals, objectives) of the community of learners?" Delineate the skills and knowledge which students obtain from its existence and use.

Stakeholders (users, audience)

Students and teachers as well as community members at large who use Project WOLF (Wildcat Outdoor Laboratory facility)

Problem and Associated Questions

How has the area been used in the past? What was the original reason for establishing this area? What is it presently being used for, and how? What should its use be in the

future? What are conflicts involved with its use and what compromises can be made to ensure continued use for all stakeholders?

Project

Students in Wide Horizons class and/or Ecology at MHS (Tish Simpson, teacher and coordinator) and I, with more expert technical help from other teachers and their students, will create a brochure to document Project WOLF (past, present) with publishing software. The brochure will include digital images and informative text to describe the three ecotones in the ecosystem (prairie, woodland, and stream). We will attempt to obtain grant money to pay for the printing of the brochure. CD's will be created to save the work for future printings. Additionally, a web link on the school district's web site will be created to display images of changes in Project WOLF through the seasons, discuss ongoing research, and any activities which relate to the site. A student or students in the ecology, Wide Horizons, or Technology class will update and maintain the link.

Authentic Audience

Teachers and other students in USD 383, Park and Recreation Department of Manhattan, the superintendent and the Board of Education, interested persons who log onto web site and link, and users of Project WOLF.

Other related activities

Construction of a permanent sign designating the area (the original one was torn down), a map for walkers/hikers into Project WOLF.

The Process

I met with three girls who had been 'hand-picked' by Mrs. Simpson from her Wide Horizons class. Their normal schedule of visiting elementary classrooms with their personally designed program on nature was winding down in late spring, and they had time to dedicate to this initiative. I led two hikes, one with all three girls, and the other with just two of them (the third had a Calculus final that day), from the grassland through the woodland to the creek. We were basically "wayfinding": I would alert them to an unusual plant or outcropping of rock, or other feature of the landscape, and they would make mental notes. Our walks were informal and exploratory, yet they used what they learned or enjoyed to go back to Project WOLF on their own to take the digital images they would use for the brochure. I provided a rough draft of what I thought should be included in the text, and they changed it very little, but created a better introduction than what I had written.

I also met once with the technology teacher and his student who had some interest in creating a web site for the project. He was a Senior, and it was near the end of the year, but he accomplished what he could, based on the following features Tish Simpson and I and the other students thought would be interesting and important.

Web Link Headings

- What is Wildcat Outdoor Laboratory Facility (Project WOLF)?

- What is the History of Project WOLF?
- How is Project WOLF used?
- What is there to See?
- What's Happenin' (seasonal changes or phenology)?
- Map of Trails, Ongoing Research, Contacts
- Navigation Bar (vertical, on left side)
- Ongoing Research, Contacts (each linked to images with captions)

The school year ended before the web link could be completed, but I was able to obtain some funds (\$200) from the Northern Flint Hills Audubon Society, a local chapter of National Audubon Society, to pay for the initial printing of the brochure. It was printed and copies were made available for distribution to interested stakeholders.

Since the summer (2005) the zoo has begun a prairie restoration project across the parking lot lane from the grassland that had been inadvertently bulldozed the previous spring. An employee who is obtaining his Master's degree in Horticulture at Kansas State University is gathering seeds from the original grassland portion of Project WOLF to seed the restored area. While this project may bode ill for the original grassland, it is, at least, a positive step in recognizing the value of native habitat. According to previous conversations with city personnel, it will be available for students to use for research.

Another bright note is that the newly hired superintendent of USD 383 school district (which includes Manhattan High School) has a history of working in a district where the high school had a similar natural outdoor area used as a science laboratory. He, Tish Simpson, and I are planning to hike Project WOLF this fall, so that he can be introduced to its unique features. We are fortunate to have a "friend in high places." We hoped that the cross-curricular connections would spawn more interest in Project WOLF and that more classes within the high school, which is adjacent to it, would take advantage of its attributes.

An added satisfaction in working on this problem and project was my delight in interacting with the three girls who created the final brochure. They had little or no prior knowledge of many of the features of the outdoor lab, and were eager learners in exploring and gleaning new information about a place that was historically and biologically significant in and to the local community. They had essentially been thrust into an endeavor that they were unsure about, but with the scaffolding I and support people provided they responded effectively in a positive and appreciative manner, and completed their part with self-efficacy, intelligence and enthusiasm. In fact, many of their counterparts in the Wide Horizons program, when they learned of their roles in creating the brochure, were envious of them! (It reminded me of Tom Sawyer's ploy in getting the fence whitewashed, although this project probably had a higher purpose.)

This collaborative initiative serves as an authentic model for project-based learning which evolved from a real community-based problem. It necessitated a solid understanding of principles of ecology and seeing the need for real-world, "hands-on" and "minds on" experiences in natural areas for our students. Their response is testimony to how such experiences work positively for our students and, as a byproduct, for their

teachers who are brought together serendipitously as a 'team.' Technology, as in the use of publishing software with school computers, was used appropriately in that it facilitated the creation of a product which could be exported from the school into the community. Technology did not, however, serve only as a virtual experience of the natural lab, but gave it a vehicle so that others could experience it vicariously, in the hope that they, too, would want to experience it directly by walking its trails and wading in its stream.

Conclusion

All three girls are now off to colleges of their choice, and I can only be pleased that I had the opportunity to share my past experience with Project WOLF, this slice of wildness in the heart of a small city, with them. I hope that when they return on breaks from academia that they walk once again on Project WOLF's trails, and that they are accompanied by friends who are unfamiliar with its small wonders. For me, the undertaking was deeply satisfying, and despite what may happen in the future, we, for now, collaborated across generations and areas of expertise to contribute to the community's awareness of a valued and intrinsically important 'outdoor classroom.'