Making a World of Difference by Looking Locally

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How place- and community-based education can broaden the classroom—and your students' viewpoints.

In 1992, Blossom Preschool and Adventures, an in-home preschool program in Ann Arbor, Michigan, that Ethan's daughters attended more than a decade later, adopted part of a local creek in collaboration with the Huron River Watershed Council's Adopt-A-Stream program. As teacher Jeannine Palms and the preschoolers began learning about Malletts Creek, they discovered many challenges faced by urban creeks and rivers. During heavy rain events, the children saw how a large amount of rain water wasn't absorbed where it fell and ended up flowing into storm drains, through pipes, and into the creek. The swollen and rushing creek right across the street from the preschool scoured the banks of vegetation, causing erosion.

Seeing an opportunity to involve her young students in caring for their local waterway, Jeannine helped them move into problem-solving mode. They started putting in plants to hold the soil and beautify the scoured areas, but the damage continued.

Jeannine's home and backyard, which served as the preschool base, were also the site of problems when rain got heavy. Her house was located next to a large park on what was once farmland. In heavy rainstorms, all the water flowed into the storm drains in the park. Learning that in natural areas, by contrast, a wetland would hold this water and let it slowly seep underground toward waterways, the preschoolers suggested, "Let's build one here!"

Jeannine was experimenting with what is now called place- and community-based education—an approach to teaching and learning that provides opportunities to immerse students in the issues—and possibilities for civic engagement—that exist within the context of their own communities. It is most powerful when students have the chance to become involved in problem solving related to their own school, neighborhood, and town or city—such as creating a wetlands area right around their preschool.

After learning about the erosion near the school, Jeannine enlisted the help of some of her former preschoolers to tackle the problem. Six early elementary-aged students worked with Jeannine and her current students to make a plan. They started by investigating the history of the land, interviewing residents who had been in the area for many years along with one who had farmed the land. Staff at the park's natural areas division explained that the area was originally a large wetland and prairie stewarded by native peoples. Later, as farmland, it had been the site of ponds that used to absorb and filter the water, but they had been drained and filled in when the city bought the land for a park.

The students, along with an adult team, began exploring how they could recreate the wetlands on this land now owned by the city. Their inquiry led to several years of sustained interaction with city officials, the writing of small grants, and the eventual creation of wetlands that have begun to filter at least some of the two million gallons of water that can flow off this 40-acre mowed park. Most recently, children from the preschool have partnered with a nearby elementary school to plant a permaculture garden, including fruit trees and berries, on the hillside next to one of the wetlands.

Children's Questions Lead to Action

The creek-based lessons—and the preschool's impact—didn't end at the borders of the park. A few months after the first wetlands had been constructed, a former preschooler expressed concerns about road salt because it "runs off the road and into the creek and hurts the little creatures." Not knowing how to explain the potential enormity of dealing with such a problem, Jeannine asked the child if she had an idea of what to do. After a thoughtful pause, she replied, "I think we need to talk to the boss of salt."

Jeannine and her former student drafted a letter to a city administrator at the watershed council and sent a copy to the local newspaper. The city administrator thanked them for the letter and encouraged them to share any ideas they might

have, because he and his colleagues were also trying to figure out ways to minimize the negative environmental consequences of road salt. After the letter was published in the newspaper, a professor at the University of Michigan began using it in his courses to demonstrate to his college students what effective citizen participation looks like, and that it can start very early.

The impact of learning experiences like these can ripple out in unexpected ways. Jeannine found out later that the letter had also influenced the University of Michigan to reduce their road salt use by half and to step up their research into alternatives. And even years later, the children who took part in this process didn't forget the value of their involvement. One of them is now a state representative.

Global Problems, Local Solutions

Author David Sobel has written that engaging students in local problem solving can play a crucial role in the development of environmental stewards. He argues that if teachers only focus on global environmental issues like climate change or ocean acidification, there is a good chance that their students will become afraid of the natural world, something he calls *ecophobia* (Sobel, 1999).

To counter ecophobia, Sobel advises teachers to provide their students with abundant opportunities to play in and explore the places where they live to develop an affection for them. These experiences should be coupled with projects that are environmentally beneficial, like planting native species on the school grounds, picking up litter, developing recycling programs, or eventually participating on local civic committees aimed at reducing carbon use. This way, students will gain a sense of their own capacity to affect positive change.

Doing this, however, requires teachers to develop a deeper sense of the social and environmental context their students live in than is generally expected of educators whose instruction remains bounded by classroom walls. Laurette Rogers learned this lesson 20 years ago when she began a place-based learning experience that would eventually lead to the creation of the Students and Teachers Restoring a Watershed (STRAW) program in California, an initiative that Greg first learned about in the early 2000s when asked to facilitate a workshop for a sponsor of the program. At the outset of this initiative, Laurette and her 4th grade class in Marin County, California, had been learning about endangered species when one of them asked, "But Ms. Rogers, what can we do?"

Together, the class found out about a number of endangered local species that were already the object of public attention, including California freshwater shrimp, whose habitats were threatened because of streamside degradation caused by cattle and sheep on farms throughout the county. Laurette proposed that her class start a project to restore the shrimp's habitat. Throughout the next few years, students studied the shrimp and the ecosystems that support them and began planting willows and other native species on the banks of denuded and eroded creeks. The students learned to be respectful of the ranchers who owned the property, and the ranchers, though initially skeptical of this effort, became enthusiastic partners in the project. Students from Laurette's 4th grade class even went to Washington, D.C., to lobby their senators about the importance of this kind of restoration activity.

The project was a success that led to even more success. Realizing the significance of this work, Laurette sought opportunities to extend her efforts to other schools, something she was able to do initially with the support of the Bay Institute and the Center for Ecoliteracy in Berkeley. Since 2011, the Point Blue Conservation Science Program has been the STRAW project's central sponsor. Since its inception, approximately 40,000 students have participated in this initiative, replanting and restoring more than 35 miles of creekside habitat as well as wetlands in the Bay Area.

Bridging Divides and Finding Common Ground

Reading one's local context also involves a recognition of racial, class, and cultural divisions that can create challenges. Overcoming such barriers requires educators to help students find common ground, learn together, and care for one another.

Teachers involved with the Southeast Michigan Stewardship (SEMIS) Coalition[1] , a professional learning network directed by Ethan that supports teachers and community partner organizations in using place-based approaches, grappled with these divisions when they embarked on a reforestation project in 2016. The project brought together high school students from an urban school in Ypsilanti, a working-class community populated primarily by whites (58 percent) and African Americans (33 percent), and 4th grade students from a private school in Ann Arbor, an affluent university community with a largely white (72 percent) and Asian (14 percent) population (U.S. Census, 2016). It is common in Michigan and other areas of the country for schools with socioeconomically privileged students to do service projects for their less fortunate neighbors. One of the intentions of this project has been to make sure that participants saw one another as equals rather than givers and receivers.

The SEMIS Coalition and We Are The Forest, a local nonprofit organization, worked with students from the two schools to evaluate ecosystem services on their campuses and develop strategies to improve waste water management, pollution filtration, and carbon sequestration on their school grounds. Using digital storytelling, students generated interest and support for reforestation in their communities. Throughout the project, high school students were able to support and mentor their younger colleagues. As one girl from Ann Arbor said in a recent video, "I thought it would be pretty hard to work with people who were so much older than me, and I think the most unexpected thing that I learned was, as soon as we met, we worked together really, really well."[2]

Three place-based, curricular scaffolds allowed students to find common ground and develop an affection for one another and a sense of ethical responsibility for their respective places.

1. *Students tackled the exact same problem at their two different schools*. They saw the ways that weather, water, and natural patterns intersected with their school buildings. Students from both schools remarked how their playgrounds and athletic fields flooded after heavy rains, making them unusable for a few days. This shared problem became a unifying element throughout the project.
2. *Students were learning the same skills and tools*. They were trained to use iTree design software, a program that allows students to collect field data and determine the most beneficial places to introduce new trees and green infrastructure at their school site. Students felt empowered by their newfound skills, and early successes translated into increased confidence in their ability to work with nature and apply local solutions to global problems.
3. *Students developed common essential questions*. Supporting this project was a set of open-ended questions that led students and their teachers into a deeper understanding of the social and ecological context of their lives and work, as well as seeing that local problems were nested within complex systems:
1. ▪ How many schools, students, forests, and parks make up the Ypsi/Arbor corridor?
2. ▪ What are the history and stories of this corridor?
3. ▪ Where are the opportunities for new stories, new forests, and student-led green infrastructure projects?
4. ▪ How do the actions that I take in my school and community affect those in other communities?

When using essential questions in the classroom, teachers often plan backwards before instruction. But in place-based education, more than in any other instructional approach, teachers must keep this plan in tension with what people in the SEMIS Coalition call *planning forwards*. The teacher engages students in rich, community-based experiences to surface students' curiosity, interests, and new questions that then become the focus of the curriculum.

Redefining the Role of the Teacher

The success of place-based education projects requires a shift in teachers' mindsets about their role. When using this approach, the teacher's role is not only to know subject content and her students, but also to be a community worker who is continually developing relationships with community members and groups. Experienced place-based educators can pick up the phone and find an expert who can bring a bounty of knowledge, perspectives, and resources to their teaching when needed. Forming such partnerships takes time and energy, but ultimately translates into higher levels of efficiency.

In addition, a commitment by teachers to place-based education cannot be separated from a commitment by school and district leaders to supporting the long-term and sustained growth of their teachers. The SEMIS Coalition, for example, engages its teacher participants each year in nine days of professional learning, including an intensive summer institute during which teachers are immersed in the same place-based experiences they will be expected to incorporate into their instructional practice. In addition, curriculum coaches meet with teachers on-site to address the particular needs of their classroom context.

With such support, and depending on the teacher, it might take three years to move from a teacher- and classroom-centered approach to learning experiences that focus on student inquiry and are based in students' own community. In five years, teachers may finally feel that they are beginning to master this approach, and by seven years, have integrated it across their entire curriculum. The SEMIS Coalition has stopped talking about "implementing a program"; its staff members now describe their work as "growing a community."

Creating Meaningful Learning Communities

Involving students in local problem solving and action can bring significant benefits. Research and evaluation on the SEMIS Coalition and other robust place-based education efforts show that a focus on local issues coupled with opportunities for local action can lead to increased academic performance, environmental literacy, and civic capacity (Chawla & Escalante, 2007; Rote, Schroder, & d'Augustino, 2015). These benefits are not surprising. Students often find this kind of learning to be more engaging and meaningful, especially when they see their efforts lead to socially or environmentally beneficial results. Most of us want to believe that we can make a difference and positively affect the lives of others, and children and teachers are no different. But how often do schools and districts give them this chance by design?

Eight years ago, the SEMIS Coalition began a tradition of hosting an annual community forum where teachers, community educators, and students could share what they'd learned and engage the broader community in ideas they were passionate about. At the first forum, eight teachers gave PowerPoint presentations to an audience of 40. Year by year this tradition has grown and become more youth focused, and this past year, students from 14 schools led presentations and workshops for more than 200 community members.

We often forget that the most powerful lever for youth and teachers to become their best selves is public affirmation and a powerful sense of belonging to a community. When 4th grade students can collaborate with high school students to use math and science knowledge to benefit the entire region and young children can do more significant environmental restoration work than many adult groups, we create a new standard and expectation for what is possible. Students also feel that they have a place at the table as full members of society. As one 7th grade student remarked at a recent community forum, "I like it that when we work with adults, it's not only the adults that make the noise, it's the students."

Six Tips on Forming Community Partnerships

1. Identify relevant coalitions and networks. Find the events and organizations where community-engaged people meet and collaborate.

2. Let students help. Teach students how to map their communities and identify the individuals and organizations that can help them address the issues they are interested in. Then empower students to write the emails and make the phone calls.

3. Be aware of the kind of partnership you are forming. *Unilateral* partnerships are ones that have short-term goals, where each partner is primarily focused on meeting its own needs. In *reciprocal*partnerships, each organization is looking out for the welfare of the other, and each intends to develop a multi-year partnership.

In *transformational*partnerships, partnerships are built on strong bonds of trust and driven by a shared ethical and civic vision. Knowing which one you are aiming for can help you set realistic and common expectations.

4. Discuss teaching goals and processes with your partners. This will allow you to arrive at a common plan and modify it, as you inevitably will, along the way. A curriculum-planning template used by the SEMIS Coalition is available.

5. Anchor your inquiry in student civic engagement. When students and partners know they are all working toward public presentation, they have a common and powerful reference point for planning purposes.

6. As SEMIS Coalition teacher Chad Segrist suggests, "Just jump in." Don't be shy. Start, make mistakes, forgive yourself quickly, and learn along the way.

For Further Study

A Simple Question: The Story of STRAW

A short film that provides an overview of the STRAW project, including early footage of restoration projects and interviews with former students about how the project influenced their lives.

Place- and Community-based Education in Schools (Routledge, 2010)

This book by Gregory Smith and David Sobel offers more information about the history of this approach and its use in schools throughout the United States.

Place-based Curriculum Design: Exceeding Standards Through Local Investigations (Routledge, 2015)

This book by Amy B. Demarest provides an accessible and thorough guide for teachers on how to create place-based experiences for students.

Great Lakes Stewardship Initiative

A website resource with guiding principles for place-based stewardship education and EPA case studies of exemplary place-based projects.

Raising Voices, Taking Action: SEMIS Community Forum

A short documentary showcasing students in Southeast Michigan involved in the SEMIS Coalition presenting their ideas about change to community members.

References

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Endnotes

1 The SEMIS Coalition is a regional hub of the Great Lakes Stewardship Initiative.

2 The video can be found on the SEMIS Coalition website.

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