

Cultivating Young Minds and a Sense of Place Through Teacher Professional Development

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BACKGROUND

Chiloé lies just south of the terminus of Chile's central valley, where the coast range gives way to island chains and fjords take the place of valley floor. Small farms and ranches dominate the landscape. Many of these small holder farms use a technique called agroecology, which is a more systemic approach to cultivating land, to manage their farms. These farmers put much energy into cultivating strong soils as a growing medium for vegetables, fruits, flowers, livestock, and forest products.

Centro de Education y Tecnologia Chiloé (CET) works with campesinos on Chiloé to transition their land through agroecology towards traditional agricultural practices. They offer popular courses to farmers throughout the island, which served as the foundation for my project; integrating these courses into school science curriculum.

Colegio Monte Verde (CMV) is an environmental charter school for students from pre-kinder through sixth curso. The school's mission is to provide education using nature as a key teaching mechanism. This project addressed using CET's tools with classroom teachers to integrate a "sense of place" into the school's curriculum through a series of workshops as a way to value their culture, heritage, and the natural sciences that make Chiloé unique.



CULTIVATING SOILS = CULTIVATING MINDS

How can educators use the concepts of agroecology, a form of place-based education, to inform and educate young people?

Sub-Questions

- What makes place-based learning effective and how can it be applied to agroecology?
- How can educators and students further see their community as a living laboratory? More specifically, can teachers, over a period of time, breakdown the walls that separate their classroom from the surrounding school grounds and begin using nature as a teaching tool, not just a location?

METHODS

Workshops were created in partnership between CMV administration, CET, and myself. The school provided garden, classrooms, and teachers with whom I worked. CET provided mentorship on program design. Program began with the 2016 school year. With these two partners, research consisted of the following phases:

- Workshop observation and field notes, which brought to light CET's pedagogy and impact on a regional scale;
- Summer professional development, in which teachers participated in site visits. Based on field experiences, educators created a frame for integrating a sense of place into their curriculum;
- In-school professional development, workshops conducted with educators and administration on integrating content with standards. As a learning community the group worked together to build lessons that spanned grades and classes.
- Modeling lessons, the researcher demonstrated content that had local content and met standards with 5th and 6th grade classes on topics such as soils and earth systems.



Teachers learning about local soils in Chiloé

ANALYSIS & DISCUSSION

This project sought to explore how concepts like agroecology could be used to inform and educate learners about their island's ecosystem. It focused on cultivating a sense of place through curriculum and teacher professional development, therefore the seeds have just been planted and activities need practice to take root. Initial findings demonstrate teachers and students discovered relevance in the content and it provided a context to discuss the place they call home. Over the course of this project:

Teachers developed a more vivid and clear perspective on teaching using their environment.

They demonstrated motivation to try something new.

The island underwent an environmental collapse. Integrating a sense of place into school lessons gave teachers a way to think critically about the ecology and better understand the complexities of the ecosystem in which they live, as well as tools to discuss the island's complexities with their students.



Sample causal chain describing the impacts of this summer's drought.