



SESSION #2C

CHAIR: Dr. Monica Ramirez-Andreotta

Role of Educational Cooperation

Thursday, Oct. 24, 2019

1:15 – 2:45 pm

Papers:

1.) **Environmental Justice Promotion through Experiential Outdoor Education on the River - Part 2 - HEAL**

By Dakota Goodman, University of Idaho

2.) **Silos and Spiders: What Measles Tells Us about Policy and Education**

By Deb Hughes Hallett, Harvard Kennedy School and University of Arizona

3.) **Autonomous Rural Development and Well-Being in the Upper Gulf of California Communities: Understanding the Problems and Finding Sustainable Solutions**

By Osmar Villalobos, CEDO Intercultural

4.) **A Model for Water Diplomacy**

By Katherine Himes, University of Idaho

Environmental Justice Promotion through Experiential Outdoor Education on the River - Part 2 - HEAL

By **Dakota Goodman**, Research Assistant and JD Candidate, emphases in Natural Resources Law and Native American Law, College of Law, University of Idaho

Abstract: This study tested a hypothesis on environmental justice promotion through experiential outdoor education on multi-day river trips. The idea for this hypothesis originated by time spent on multi-day river trips while growing up. The positive impact of these places on the human psyche is substantial and can be an extremely important tool for health epidemics plaguing the modern day. The initial observations from time spent on multi-river trips developed into an interdisciplinary research project combining Human Rights, Education and Psychology. That research was part 1 of a larger proposal, and set the foundation for further testing seen in this paper, part 2. HEAL is the second part in what is projected to be a three-part test to show that this hypothesis can work as a theory for a future nonprofit. Observational and survey data was collected and analyzed to add content to the previous research that pointed to the hypothesis working. Overall, it can be concluded that multi-day river trips can be a useful tool in helping connect people to those surrounding them and their sense of place.

Author's Note: I want to take people down rivers so they can learn to relate as individuals rather than societal stereotypes. Watching an individuals' psyche change as they travel down river has shown me that the river can alter how people think about those surrounding them and world around them. People will learn how to work as a team and understand that we are all human despite differences in opinions, political, social, cultural, economic beliefs. Environmental psychology research has shown that exposure to nature changes the individual's psyche. I would like to continue to test my hypotheses in this area by furthering the research I conducted for my human rights minor at UC Berkeley. The following text is part 2 of three planned stages for the larger project. Part 1 was the Human Right Interdisciplinary minor thesis and nonprofit proposal. Part 2 presents observational and statistical data, testing the theory with an outline for the next step of field research. Part 3 will be testing this theory in the field, on river trips. The important findings to note include the concept of awe, the three-day effect, the importance of the river context, the history of outdoor education of river trips and gaps that need to be filled. This is a social justice, environmental justice, and public interest oriented project.

I am developing my own theory grounded in extensive research within the fields of environmental education, environmental psychology, human rights theory, environmental

justice theory, outdoor education, experiential education and environmental activism history. The first part of this theory was presented in *Water Watchers Education Advocacy Adventure*, a thesis written for the Human Rights Interdisciplinary minor at UC Berkeley. Part 2, *HEAL* will present observational and statistical survey data. With all of this combined research I will continue looking at how to test this theory. The results in this thesis present data from a pilot study.

Silos and Spiders: What Measles Tells Us about Policy and Education

By *Deb Hughes Hallett*, Adjunct Professor of Public Policy and Professor of Mathematics,
Harvard Kennedy School and University of Arizona

Abstract: Measles, a disease all but eliminated in the Americas, is once again threatening lives. A highly effective vaccine exists, yet many countries are seeing dangerous outbreaks. What has gone wrong? Could this happen again?

This talk will consider contributions to this tragedy from policy, education, public health, development, and political will. While all of these have contributed, one significant contributor is the lack of coordination between education and public health. This lack of coordination is an unsurprising consequence of the silo-ed design of our educational systems.

Measles outbreaks are made more likely by lack of understanding of the conditions that enable an outbreak. Similarly, not understanding how to assess the reliability of a medical claim means that people are easily swayed—sometimes for the better, but often for the worse. Lack of understanding of these two concepts has contributed to a drop in vaccination rates and hence to the outbreaks.

Why are these concepts not understood? They are not beyond the comprehension of most students and most citizens. Yet most students do not learn about herd immunity in school or university, even though the tools to understand it are in the curriculum. Many students do not learn statistics, and those that do seldom learn what experimental design tells us about the measles vaccine.

These concepts are not learned partly because in most countries education is conducted in silos. Subjects are presented as separate and independent. Instructors do not make corrections across disciplines and so neither do students.

What is the impact of teaching in silos? Much research is now interdisciplinary, and most policy challenges involve multiple fields—measles is but one example—so students urgently need to learn to make cross-disciplinary connections. Climate research, for example, requires an understanding of science, engineering, economics, data analysis, politics, and more. The silo-ed nature of education means many citizens are handicapped in addressing global challenges.

How would education look if it were not conducted in silos? This is already done in a few fields, for example, business and medicine. However these fields are the exception. In many disciplines, instructors currently teach in neat siloes, without little reference to other fields. This talk will advocate the instructors should behave like spiders, climbing across fields and building a web of connections.

Teaching based on connections, not silos, is challenging, both for students and teachers. Instructors need to learn how what they teach is used. Students cannot not as easily memorize their way to a passing grade. But it is not too challenging for either group—other countries have done it. In addition, teaching like a spider has unexpected benefits. We are currently losing some of our strongest students who wonder “what is all this for?”. Interdisciplinary connections can provide an answer.

To educate our citizenry, we need to change the educational paradigm: Fewer courses that are silos and more instructors teaching as spiders.

Developing the Right Mindset for Combining Science, Engineering and Policy

By **Osmar Villalobos**, *Social Participation Assistant, Intercultural Center for Study of Deserts and Oceans (CEDO Intercultural)*

Abstract: At the Intercultural Center for the Study of Desert and Ocean (Intercultural CEDO), we believe that the concern for conservation should also encompass human communities. It is a fact that rural communities play a fundamental role as producers and responsible for the natural environment; also that, today, the traditional ways of living are facing the homogenizing effects of globalization. In this order of ideas, this paper aims to describe an overview of the socio-environmental problem that persists in the riparian communities of the Upper Gulf of California, as well as the community development strategy that we are implementing to build sustainable lifestyles and to achieve the well-being of these communities. Through participatory action research, groups of fishermen, youth and women have been involved in the identification and critical analysis of their main problems; as well as in the design and implementation of actions to achieve autonomous rural development based on common-pool resource management, and in accordance with their ecological and cultural vocation.

A Model for Water Diplomacy

By *Katherine Himes, PhD, Director, James A. & Louise McClure Center for Public Policy Research, University of Idaho*

Abstract: Water security is a major challenge facing many regions of the world. Tensions over shared water resources often intersect with national security priorities and connect to a wider set of economic, social and geopolitical issues. At the international level, such tensions can increase the risk of geopolitical instability. Water diplomacy enables countries to negotiate agreements on the allocation and management of international watercourses. This dynamic process aims to develop durable solutions to water allocation and management and support or enhance regional cooperation and collaboration, shifting water from a source of tension to a “blue peace.”

In Central Asia and Afghanistan, the U.S. Agency for International Development (USAID) advanced “Many Waters”, a three-pronged regional program, which serves as a model for fostering water diplomacy. This approach focuses on three key levels: the local, national, and transboundary. Building local governance capacity through the creation and training of transboundary water councils creates avenues for collaboration. Supporting regional and international water research through the Partnerships for Enhanced Engagement in Research (PEER) strengthens connections among universities, governments, and communities. Participating in multi-institutional diplomatic efforts that span the entire region encourages transboundary, basin-level engagement.