

Interactive Workshop Title:

Nurturing more expert ways for thinking about climate change

Developments in the last century – the global economy, unprecedented migration patterns, and the digital revolution – have forced a challenging shift in the way we think about what matters most to learn. As traditional systems of learning are substantially challenged and reshaped, consensus is building around the importance of educating learners to grapple more insightfully and productively with complex issues. While much investment has gone into creating frameworks, curricular materials and activities for that purpose, less attention has been focused on clarifying what qualities of thinking are necessary if learners are to develop more expert ways of thinking about pressing global issues that are complex and often controversial.

Drawing on research that looked at the character of expertise across multiple disciplines, including an in-depth qualitative study comparing expert and novice understanding of climate change, this interactive workshop will invite participants from diverse disciplines to work with a few critical considerations for curricular design if they are to nurture the kinds of thinking that will stand learners in good stead to work towards environmental sustainability and revitalization. Specifically, using climate change as an example, participants will explore how experts differ from novices in three principal ways:

1. the experts characteristically viewed climatic events and phenomena through geological time scales, which has important implications for supporting students to understand the shifting baselines for measuring change that tend to be at the heart of controversial and often bitterly contentious issues;
2. the experts reasoned from their identity and worldview as scientists with a moral responsibility to not only provide scientifically accurate information to the public, but also to do so in a responsible way; and
3. they recognized the provisional nature of knowledge, and engaged in cognitively effortful processing of information that relied less on heuristics and more on culturally specific knowledge.

Participants will have the opportunity to work with these ideas, and to develop and test curricular design innovations for moving learners closer to more expert ways of thinking about environmental sustainability and revitalization.