



ACE PROJECT NATIONAL FORUM: “DESIGNING CLIMATE-READY EDUCATION FOR THE NEXT GENERATION OF PROFESSIONALS” hosted by the Waterloo Climate Institute, February 2-5, 2025

CLIMATE PEDAGOGY SESSION: KEY TAKEAWAYS

Held on Monday, February 2nd from 1:30 to 3pm EST

SESSION DESCRIPTION:

The “Climate Pedagogy 101: Teaching for Impact across Disciplines” session brought together experienced postsecondary educators from across Canada to share best practices for teaching climate change in ways that inspire student hope, agency, and action. 95 people attended this session, which was hosted as a Zoom meeting to allow participants to interact. The session was moderated by Michele Martin (UWaterloo Climate Institute) who provided an overview of the ACE project and introduced the speakers, who each shared insights into climate pedagogy based on their own research and practice. Speakers included Teri Balser (University of Calgary), Kshamta Hunter (University of British Columbia), Ellen Field (Lakehead University), and Rachel Regier (University of Saskatchewan). After the presentations, participants were invited to join breakout groups offering participants guidance on adapting course activities and assessments to strengthen climate learning across disciplines.

[The session was recorded and is available here](#) (apologies- the introduction is truncated).

SUMMARY OF PRESENTATIONS:

- **Dr. Ellen Field** emphasized that climate education in K–12 settings can act as a social tipping point by shaping youth norms, values, and sense of agency, but current approaches often fall short. Research with 1,000 youth aged 16–25 revealed widespread climate anxiety, with 80% reporting mental health impacts and many expressing hopelessness or uncertainty about the future. Teaching climate change as a problem without solutions can worsen these emotional impacts, while limited instructional time—typically only 1–10 hours per year—and low teacher confidence further constrain effective learning. Climate education in Canada is concentrated mainly in science and social studies, often in elective senior courses, limiting consistent exposure for all students.
- **Dr. Kshamta Hunter** spoke about Climate Kind Pedagogy (CKP), a values-driven approach to climate education that integrates kindness, justice, and relational learning while recognizing students as whole, emotional, and socially situated learners.

Grounded in constructivist, transformative, and reflexive pedagogies, it emphasizes honoring lived experiences, supporting diverse ways of knowing, and fostering critical reflection and personal growth. Research shows kindness-based approaches enhance student engagement, motivation, belonging, and learning outcomes. CKP is operationalized through the Five Cs—compassion, connection, clarifying values and roles, co-construction, and challenge—which foster supportive, collaborative, and empowering learning environments. Practical strategies such as cooperative games, grounding activities, values clarification, and peer teaching help address emotional dimensions like eco-anxiety while promoting hope, agency, and meaningful engagement with climate solutions.

- **Dr. Teri Balsler** highlighted climate justice and climate emotions as key elements unique to climate education, emphasizing the need to address both systemic inequities and the emotional impacts of climate change. Her research with undergraduate students challenged assumptions that students are fragile or avoid difficult topics; instead, students expressed a strong desire to engage honestly and directly, with differences reflecting developmental stages—from first-year students needing more emotional support to second-year students actively seeking challenge and action. Terri proposed “affective scaffolding” to intentionally support students’ emotional readiness alongside intellectual growth, helping them progress toward more nuanced understanding and agency. Pilot initiatives like the “Take Back the Future” design sprint demonstrated that structured opportunities to envision positive futures can increase students’ optimism and sense of empowerment, reinforcing the importance of aligning pedagogy with students’ emotional and developmental needs.
- **Rachel Regier’s** teaching philosophy emphasizes engaging students emotionally—not just intellectually—by using stories and case studies to help them think, feel, and act on climate change. Research on brain chemistry shows that emotional states shaped by storytelling can increase trust, curiosity, creativity, and openness, while fear-based messaging can lead to disengagement. Stories also enable mental rehearsal and perspective-taking, allowing students to imagine real-world responses and build readiness for action. Case studies, whether brief or extended, help students apply knowledge in realistic contexts and develop practical competencies. This approach aligns with longstanding Indigenous pedagogies that use storytelling as a foundational method for learning, reinforcing the value of narrative as a powerful tool for meaningful engagement and behavioral change.

KEY TAKEAWAYS FROM THIS SESSION:

- **Climate pedagogy is more than transmitting knowledge**—it empowers learners with skills, values, and attitudes to act as agents of change, deeply connected to justice, decolonization, and reconciliation work
- **Four approaches to embedding climate in curriculum:** piggyback (adding to sessions), mainstreaming (foundational courses), specializing (dedicated programs), and connecting (interdisciplinary courses)

- **Focus on hope and action:** Teaching only problems without solutions amplifies cognitive dissonance students experience
- **Climate Kind Pedagogy framework** uses five Cs: Compassion (intelligent kindness), Connection, Clarifying values and roles, Co-construction, and Challenge—combining kindness, justice, and relational learning
- **Affective scaffolding** is essential alongside content scaffolding—students progress developmentally from "coping" (first year) to "grappling" (second year) with difficult climate information
- **"Head, Heart, and Hustle" framework:** students identify what brings them joy, what climate work needs doing, and what they're good at, resulting in highly motivated culminating projects
- **Stories are powerful pedagogical tools:** they prepare the brain for action through mental rehearsal, reduce threat responses, promote perspective-taking, and indigenize teaching

RESOURCES SHARED IN THIS SESSION:

- [Accelerating Climate Change Education in Teacher Education in Canada \(ACCE-TE\)](#)
- [ACCE-TE — Teacher Ed Case Studies](#)
- [Climate Kind Pedagogy \(CKP\)](#)
- [Daybreak \(cooperative climate board game\)](#)
- [Ellen Field + Lindsay Galway youth climate emotions / climate anxiety study \(survey of 1,000 youth ages 16–25\)](#)
- [NAAEE — Climate Change Education Resources](#)
- [North American Association for Environmental Education \(NAAEE\) — Climate Change Education](#)
- [Otto et al. paper on education as a social tipping point / social tipping dynamics](#)
- [Provincial/territorial scan of **where climate expectations appear in Canadian curriculum** \(science/social studies; elective vs mandatory emphasis\)](#)
- [Ted Aoki: “curriculum as planned” vs “curriculum as lived”](#)
- [William Perry’s Scheme \(dualism → multiplicity → relativism → commitment\)](#)
- Royal Roads Resilience by Design Lab’s [Climate Action Competency Framework \(v2\)](#) for professionals
- Waterloo Climate Institute: [The status of climate change education in Canadian accounting, architecture, planning and engineering programs \(2025\)](#)
- [ACE Project infographics](#)
- [ACE Project website](#)

**For more information, please contact the Waterloo Climate Institute:
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