each time slot

Hour

Land-and water-based learning

Theme: ESE: What's holding us back ESE and TE: Exploring specific practices and approaches

11:00am -12:30pm EDT ESE pedagogies with children and in schools

Plenary: Welcome, Introductions, Land Acknowledgement by Verne Ross, Overview, Break-out Activity

12:30pm -1:00pm EDT

Break for Lunch

Roundtable A

Researching pedagogical climate activisms with young people in colonial places and spaces: Fikile Nxumalo; Veronica Pacini-Ketchabaw; Cristina Delgado & Narda Nelson

Abstract: This paper shares our research investigating how pedagogical activisms can problematize climate initiatives that maintain apolitical notions of education. Drawing on participatory research with young people and teachers, we narrate moments of climate change activism through pedagogical encounters within colonial landscapes in Canada, Ecuador and the United States.

View Fikile's bio | View Veronica's bio | View Christina's bio View Narda's bio

Understanding and Elevating Ocean Literacy in Canada: the building of an evidence-based national strategy:

Abstract: This presentation will share the Canada wide research and engagement process to co-develop Land. Water. Ocean. Us: A Canadian Ocean Literacy Strategy (2021). This bottom-up national strategy outlines the pathways for advancing ocean literacy in Canada over the course of the United Nations Decade of Ocean Science for Sustainable Development (2021-2030).

Cassandra re-encountered: ESE in teacher education in a time of climate change: Chris Beemar

Abstract: Cassandra correctly predicts the fall of Troy. She is also cursed to be disbelieved. This ancient Greek myth is explored to better understand the apparent powerlessness of current-day climate justice activism to change public policy. A central idea emerges from this exploration with implications for ESE-TE. For knowledge about to become successful action around climate change, our notion and enactment of what it is to be human must

View Chris' bio

Validating and supporting experiential and place-based pedagogies in education for sustainability: The case of teacher education: Robert VanWynsberghe; Teresa Rowley; Patrick Robertson & Bruce Ford

Abstract: The EfS Teacher Education Cohort at UBC is now into its third year. Inquiry-based teaching and systems thinking are combined to link sustainability to social and ecological justice, climate action, equity, and social change. These lens are also highlighted in our place-conscious, community-based, approaches to teacher education in collaboration with local school districts and community partners, as well as regional, provincial and national education networks.

View Robert's bio | View Teresa's bio | View Patrick's bio View Bruce's bio

Food justice education as/for ecojustice education: Challenges and opportunities: Erin Sperling

Abstract: From an ethnography in a food justice education program for youth, the author, a teacher educator, considers the transfer of findings and factors to the space of teacher education, using the conceptual framework of ecojustice education. How we encounter and embody ecojustice in teacher education is the topic

View Erin's bid

Embracing entanglements in the forest: Teaching children with GoPros, garbage, and pinecones: Debra Harwood

Abstract: ESE education for the very young can be (re)conceptualized when we embrace ideas of children's dynamic meaning-making that are spontaneous, fluid, dynamic, complex, and relational with/alongside materials. Utilizing theories of posthumanism and new materialism, this study examined the bodily/social/affective intra-actions in a forest to challenge ideas of teaching in ECE.

View Debra's bio

The 'Trials and Tribulations' of environmental teacher

Abstract: Environmental teacher leaders tackle challenging sustainability issues. The literature contains little about the factors that support or hinder their success. This study addresses this gap, and found significant barriers including opposition from fellow teachers and lack of active principal support. Is there a risk we might lose these vital leaders?

View Karen's bio

From SEEDs to SEEDLINGs: David B. Zandvliet; Alisa Paul &

Abstract: This paper offers reflections on the development and potential of a transformative teacher education project: the SEED module as component of the PDP. The work of our teacher education program utilizes the lenses of social ecology and diversity to examine the roles of teachers in bringing an awareness of sustainability issues to students' learning.

View David's bio | View Alisa's bio | View Maureen's bio

2:30pm EDT

Schools and communities: Affordances for interdisciplinary teaching and learning: Xavier Fazio

Abstract: For youth to address complex socio-scientific issues requires examining the affordances and challenges for interdisciplinary teaching and learning in schools. Analyses of the literature and case analyses using a cultural/systems perspective can reveal opportunities to support school-community environmental and sustainability projects.

Environmental Education - Holistic Approach of Learning:

Abstract: Our study analyzed how different religious experts

impact of human activities on the environment. Our

View Munizah's bio | View Giuliano's bio

(social-ecological) approach to environmental education.

articulate the role of God in natural disasters and whether they negate or contradict current scientific understandings of the

interdependence with nature is an important element of a holistic

teachers' perceptions and practices of outdoor learning: Hartley Banack & Gerald Tembrevilla

"Not elsewhere specified": A case study of preservice

Abstract: Situating outdoors as a boundary object of where learning occurs, this case-study analyzed 90 preservice teachers' reflections from outdoor activities during mandatory teacher education methods courses. Three overarching outdoor dimensions were distilled: outdoors as experience, concept, and time/place. Discussion considered purposes for outdoors teacher

View Hartley's bio | View Gerald's bio

White racial(ized) consciousness work (WCRW):

Abstract: The presentation addresses the dysconsciousness of racialization and colonization that characterizes white settlers and is based on research that was positioned as a preparatory step in the process of reconciliation. The three-step process of the research project resulting in a model for racial(ized) consciousness

Are we on the right track? Case study results examining the efficacy of environmental and sustainability education approaches in teacher education: Laura Sims; Madeleine Asselin & Thomas Falkenberg

Abstract: This presentation explores a qualitative case study examining the effectiveness of ESE approaches used in two Université de St. Boniface curriculum and instruction courses. Findings from former students interviewed suggest that these ESE strategies are effective at enabling learning; how interviewees are applying similar strategies in their teaching are shared. Questions about efficacy and limitations of these strategies are explored.

View Laura's bio | View Madeleine's bio | View Thomas' bio

Infusing ESD into Curricula: Influences on Students' Understandings of Sustainable Development, ESD, and their Roles as Educators: Therese Ferguson; Sharon Bramwell-Lalor: Loraine Cook: Carol Hordatt & Carmel Roofe

Abstract: This presentation introduces a collaborative action research project undertaken by a group of teacher educators in Jamaica to infuse ESD into course content. Findings are shared with respect to students' level of awareness and perspectives on: sustainable development: ESD: teachers promoting ESD: and the ESD actions required of the individual teacher.

View Therese's bio | View Sharon's bio | View Loraine's bio View Carol's bio | View Carmel's bio

2:30pm -2:45pm EDT

2:45pm -4:15pm EDT

Break

Roundtable B

ESE: Policy considerations

environmental education: Peta White

Abstract: In collaboration with three leading EE organizations across Australia and New Zealand, three researchers have

conducted a survey and workshops exploring the practices of

environmental and sustainability education (ESE). The findings

This disconnect will be explored during the presentation

View Peta's bio

View Floriane's bio

reveal a disconnect between the research and the practice of ESE.

Exploring the disconnect between theory and practice in

ESE in TE: Integrating interdisciplinary perspectives

Eco-anxiety and mental health challenges in the face of the climate crisis: Adapting our teaching practices to promote students' well-being: Rhéa Rocque &

Abstract: As educators, we can help prepare future teachers to work with students who may be suffering from eco-anxiety. This presentation will explore eco-anxiety and its repercussions on our students, as well as exploring how we can adapt our teaching practices to support our students in adapting to the climate crisis.

'iew Rhéa's bio | View Mélanie's bio

Leadership and collaboration in ESE

Environmental and sustainability education in teacher education: Canadian perspectives: Maurice DiGiuseppe; Doug Karrow; Hilary Inwood & Paul Elliott

Abstract: In this session, we will engage participants in a critical discussion of relevant Environmental Sustainability Education in Teacher Education (ESE-TE) research, policy, and practice matters, recently published in Environmental and Sustainability Education in Teacher Education: Canadian Perspectives (Springer).

View Maurice's bio | View Doug's bio | View Hilary's bio View Paul's bio

Climate change education

A Canadian climate change curricula analysis: Key findings for teacher educators: Gia Spiropolous 8

Abstract: This article presents the results of a national curricula analysis for climate change expectations across all subject areas. These results provide an overview of how climate change education is integrated into the provincial curricula policy and are considered in relation to international climate change policy and empirical evidence of effective climate change education strategies. The article provides recommendations for addressing

View Gia's bio | View Ellen's bio

What's in a Name? The Signifiers and Empty-Signifiers of 'Environmental and Sustainability Education': Implications for Teacher Education: Doug Karrow; Xavier Fazio & David Zandvliet

Abstract: Environmental and sustainability education's (ESE) 'signifiers' and 'empty-signifiers' in teacher education underscore debate around their virtues and vices. Because of schooling's constraining regularities, ESE's diverse signifiers and empty signifiers make it difficult to move it from the margins to the mainstream in teacher education. Solutions to this impasse, are

View Doug's bio | View Xavier's bio | View David's bio

Connection with nature: Visions of Environmental Education in formal contexts: Clementina Rios; Alison

Abstract: The research aims to know and understand what, where, how and with whom do students learn about nature? How they develop their ecological self and environmental participation? Our research demonstrates the importance of school curriculum and environmental practices - in non-anthropocentric educational

contexts and when students are environmental agents. View Clementina's bio | View Alison's bio | View Isabel's bio Integrating in-service and pre-service professional learning in ESE: Hilary Inwood & Alysse Kennedy

Abstract: This presentation shares the findings of a multi-year research study focused on an innovative collaboration that integrates professional development for teacher candidates (TCs) and practicing teachers in Environmental & Sustainability Education. Findings identify how the partnership between the Toronto District School Board and OISE offers a new model for integrated professional learning.

View Hilary's bio | View Alysse's bio

Highlights of the Canada, climate change and education survey for teacher educators: Ellen Field &Pamela Schwartzberg

Abstract: The purpose of this national survey (n=3196) is to gain an understanding of current levels of knowledge and perceptions of climate change among the general public, parents, youth and educators as well as to assess how Canadians think the education system should respond to climate change challenges. This report also provides a comprehensive snapshot of current teaching practices (teachers=1219), such as subject alignment, instructional strategy, and the number of instructional hours of climate change education, along with strategies to handling controversy related to climate change in the classroom.

View Ellen's bio | View Pamela's bio

How are district and school administrators enacting EE policies within a rural Ontario district school board?

Abstract: Drawing on both neo-institutional and sense-making theories (Coburn, 2001; Marz, Kelchtermans & Dumay, 2016), I am working on an exploratory district case study comprising interviews and documentary analysis to get a finer understanding of how district and school administrators make sense of EE policies and regulations to enact them, in a rural Ontario school board.

Enriching our teacher education programs: Looking to environmental and sustainability education and the universal design for learning to respond better to the needs of all our students: Laura Sims & Marie-Élain

Abstract: We examine how applying Universal design for learning (UDL) principles when planning learning activities that use environmental and sustainability (ESE) approaches can help overcome perceived barriers. Exemplary stories from our teaching practices are shared. We reflect upon commonalities, distinctions between UDL and ESE and potential implications for faculties of education when applying these approaches in teacher education

View Laura's bio | View Marie-Élaine's bio

Exploring the use of design thinking in environmental education: An approach to environmental problem-solving in post-secondary civil engineering students needs of all our students: Michel T. Léger &

Abstract: Engineers are called upon to solve complex technical problems, including environmental problems. Design thinking is gaining popularity as a novel approach to engineering. Results from our exploratory case study show that this approach can lead to more creative solutions in civil engineering students attempting to solve complex environmental problems.

View Michel's bio | View Anne-Marie's bio

Anne-Marie Laroche

Leadership practices in environmental and sustainability education in pre-service teacher education: A collaborative action research project: Paul Elliott; Hilary Inwood & Yovita Gwekwerere

Abstract: This research reflects on our experiences as teacher educators working to provide leadership to improve ESE-TE in three faculties of education. Sharing experiences, acting as critical friends and drawing on published research, the project aimed to build our capacity and identify leadership practices and strategies to help others engaged in this work.

View Paul's bio | View Hilary's bio | View Yovita's bio

Nurturing embodied agency in response to climate anxiety: Exploring pedagogical possibilities: Maria Vamvalis

Abstract: This research takes the form of a systematic review of the current literature in climate change education in Canadian and international contexts, to map key principles in nurturing active, critical and transformative hope in young learners (ages 12-18) in diverse contexts by centering embodied agency inclusive of emotional affect, political agency and decolonial epistemologies.

View María's bio

The Jamaican National Standards Curriculum (NSC): A content analysis of its readiness to support climate change education: Sharon Bramwell Lalor; Therese Ferguson

Abstract: This presentation focuses on how the recently revised Jamaican National Standards Curriculum for Grades 4-6 facilitates Climate Change Education. The 'Science of Climate Change' dimension as well as the pedagogical strategies, is strong in the curriculum. This necessitates an inclusion of these areas of focus in teacher preparation programmes

View Sharon's bio | View Therese's bio | View Miguel's bio

4:30pm -5:30pm EDT Closing