

## Reimagining Learning Research in “canada” as “road Making”: Opportunities to Move Toward Equity Through Walking Methodologies

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**Abstract:** This symposium advances walking methodologies, and the kinds of learning and research relations that emerge through walking, as a significant process for “road making” toward more equitable futures in the Learning Sciences. The papers gathered here highlight diverse forms of walking together: from cultural anthropological research (Lee & Ingold, 2006) to walking with and alongside community activists (Curnow, Davis, & Asher, 2018; Takeuchi & Aquino Ishihara, 2021), to walking as learning and coming to know with and from the land (Marin & Bang, 2018), to reimagining place from transnational perspectives (Adams, 2013), and wayfaring as figuring both science and identities (Rahm, Gonsalves, & Lachaine, 2022). Through dialogue within and across papers, we emphasize the ways in which walking methodologies make visible materiality and relations with the more-than-human world (Marin, 2020), as well as effects and experiences of inequity, with attention to co-constructing caring and equitable relations through shared walking.

### Overall focus of the symposium

#### Background

The field of the Learning Sciences is in the midst of developing broader understandings of central concepts—including transdisciplinarity, design, cognition, technology (Shanahan, Kim, Takeuchi, Koh, Preciado-Babb, & Sengupta, 2022) (1). Situated on the land that is now called as “Canada,” we have been acknowledging the ongoing figuring and refiguring of the field of the Learning Sciences as a pivotal process enabling the field to learn and grow from historically silenced perspectives while moving toward an equity- and social justice-oriented ethos (Takeuchi, Vadeboncoeur, Krishnamoorthy, Hladik, Rahm, Kim, & Clark, 2022). Given the location where the International Society of the Learning Sciences conference will take place, we cannot ignore the histories of settler colonialism (Bang, 2020) and racial inequity that manifests in and through the phenomenon of learning. Where the conference is to be held, Quebec, is also the place where Joyce Echaquan, an Indigenous woman, was verbally abused and died while awaiting care in a hospital. It is in Quebec that six Muslim men were fatally shot in a mosque due to Islamophobia. Our symposium is grounded in our commitment to reconsider and reimagine our learning research and scholarship in ways that take into account and respond to these events seriously.

As one way to advance our commitment, we attend to the seemingly mundane act of walking. Walking together is “a social practice and method for knowledge building” (Marin, 2020, p. 9), as well as a practice of joint road-making, of making our way as we go (Horton & Freire, 1990, p. 6). Walking methodologies include

diverse forms of walking together—from those incorporated into cultural anthropological research (Lee & Ingold, 2006) to walking with and alongside community activists (Curnow, Davis, & Asher, 2018; Takeuchi & Aquino Ishihara, 2021) to walking as learning and coming to know with and from the land (Marin & Bang, 2018), reimagining a place from transnational perspectives (Adams, 2013), and wayfaring as figuring both science and identities (Rahm, Gonsalves, & Lachaine, 2022). There are likely other ways to walk with and alongside community members, to learn from and with them about racialized, gendered, and cisheteronormative practices through walking, and to begin to re-make the worlds we live in through generative interactions that create new ways of attending and seeing with, of becoming together, and of making change. Our research holds space to move beyond walking as a tool, or a means to an end, to advance possibilities for walking as a way of re-centering “bodies-in-motion as well as lands/waters” (Marin, 2020, p. 4) in learning theory, practice, and research. We also see a possibility of learning as being “embodied” and “emplaced” (Takeuchi & Aquino Ishihara, 2021), as a practice of walking toward justice in a material world that is “always already” a living ecosystem. As Lee and Ingold (2006) described, “walking itself can consequently become a practice of understanding, so that the record of the walk, and of the experience it affords, is just as important—and just as valid a source of field material—as the record of the ‘discourse’ that might have accompanied it” (p. 83). Our purpose in this symposium is to describe and inquire into our own research into learning, which incorporates different forms of walking methodologies located in various places within “Canada,” in order to highlight both lessons learned and next steps as we continue to work toward advancing racial equity.

This kind of research requires attending and seeing with each other, in significant ways. Ingold’s (2014) notion of attending is based upon the idea of entering into the unknown in our encounters with others. For example, it is worthwhile to attend to what is unfolding, including affects and ordinary encounters (Blaise, Hamm & Iorio, 2017; Taylor, 2020; Taylor, Blaise, & Giugni, 2013), matter and materials (Osgood & Andersen, 2019; Rautio, 2013, 2014), and more-than-human relations (Marin & Bang, 2018; Marin, 2020; Nxumalo & Pacini-Ketchabaw, 2017; Taylor & Pacini-Ketchabaw, 2017). One intention of our work is to decenter the person, or perhaps better said, to attend to what research on persons has previously made invisible, including material worlds and ecosystems and the material effects of racialization, as well as how these components affect or contribute to inequitable conditions for racialized people. Evoking Horton and Kraftl’s (2006) invitation to attend to “what else” matters in research, we include bodies, places and spaces, affects, trees, sidewalks, material objects and other “minor actors” (Taylor, 2020) to better understand how what matters makes new horizons visible.

Attending more closely to what matters, and the matter(s) with which we are engaged, enables learning from and with participants and community members, and it also requires becoming affected by our experiences walking together with and alongside. Drawing an analogy to MacLure’s (2016) work with children, we note that perhaps participants and researchers “are caught up in events that move at different speeds and are sometimes imperceptible to one another” (p. 180). From the perspective of the researcher, the activity may be ordered and regimented given typical research requirements, while the pace in which the life of the participant unfolds may be interrupted by research. These differences may remain “below the threshold of visibility set by the categorizing gaze that already ‘knows’ what is and is not significant” (p. 8). Concepts like attunement (Blackman, 2012; Stewart, 2011; Vossoughi, Jackson, Chen, Roldan, & Escudé, 2020), correspondence (Ingold, 2017), and passionate immersion (Tsing, 2010) in the lives of participants, “among other things,” may enable researchers and participants to walk together during fieldwork in ways that advance understanding and contribute to social and ecological justice.

Innovative ways of attending, seeing, and becoming—both in research methodologies and when working toward changing larger ecosystems—require changes to research relationships, roles and responsibilities, what counts as learning, and how what is learned is utilized, by whom, and under what conditions. Walking methodologies expose the taken-for-granted in traditional research relationships by changing the balance of power between participants and inquiring into various kinds of power, their limits and limitations. Both highly visible actors in research and “minor actors” contribute in significant ways to the creation of “meaningful places” inside educational institutions (Panina-Beard & Vadeboncoeur, 2022), as well as “place attachment” (Scannell & Gifford, 2010). A logic-of-inquiry that advances research as attending, witnessing, walking, and storying with and alongside participants impacted by inequity offers opportunities to make visible the effects and experiences of racial inequities at a time in Canadian and world history when moving toward reconciliation and racial equity is urgently needed.

## Symposium format

As a collective of scholars, and part of the leadership team for the Network of the Learning Sciences in Canada (<https://www.canadianlearningsciences.ca>), we believe in Open Access and equitable knowledge exchanges that can be achieved through a hybrid format. We are aligned with the vision set out by the International Society of

the Learning Sciences, while also amplifying voices and context-specific, place-based scholarship from the geopolitical margins. While we embrace transnational scholarship reflecting the histories of immigration and refuge in Canadian society, and we use “Canada” in our Network to reflect our organizing efforts to foster equity-oriented scholarship of the learning sciences to include non-American contexts, we also acknowledge the colonial histories that the national marker, “Canada,” carries. We know that the place we share was first called Turtle Island and as a collective, we commit to reflect on Canada’s colonial past, learn from emerging truths, and act toward reconciliation with, and the resurgence of Indigenous communities.

To be aligned with our vision, we aim for this symposium to be a space for inter-university and inter-generational dialogues. We invited faculty members, postdoctoral scholars, and students as well as our community partners (where it is appropriate). In addition to the place-bounded symposium to take place in Montreal, we will create a virtual meeting room where the participants can join our symposium virtually. We will also invite the participants to continue dialogues with an asynchronous, online discussion board. The Network has been experimenting with alternative formats, learning from conferences, and creating our own Invited Learning Symposia throughout the year. During the COVID-19 pandemic, we have learned many things, including the value of holding online conferences. With an online option, we may be able to meet some of our shared goals; for example, we can reduce barriers for participation and our collective environmental “footprint.” For this reason, while we honor the participants who wish for in-person interactions achieved through face-to-face conference, we will also mobilize our collective knowledge for virtual conferences to run an effective hybrid session.

The total length of this symposium will be for 75 minutes. Our symposium will start with a five-minute summary from co-chairs to frame the session (Vadeboncoeur, Takeuchi, Rahm). Then, four papers will be presented for 12 minutes each. The Discussant (Marin) will be invited to thread ideas across the papers for ten minutes, highlighting generative differences as well. A virtual discussion board (Padlet) will be used to facilitate online discussion throughout the symposium. During this time, our symposium will be made available virtually for the ISLS participants who decided to participate remotely. We will conclude with a reflection and discussion with the audience, which will happen both in the conference room in Montreal and in the virtual room. Co-chairs will divide the task of moderating discussion both in-person and online.

## **Paper 1: We make the road by walking: Toward abolitionist research methodologies**

Joe Curnow & Abolitionist Futures Collective

Over the last years we have seen a groundswell of abolitionist organizing around the world, calling for anti-racist interventions to defund, disarm, and abolish police and prisons. Abolitionism is a social movement and political ideal that not only calls for the abolition of the carceral state (Gottschalk, 2015), including prisons, police, child welfare, and other racialized and colonial systems of surveillance and punishment, but, more affirmatively, for building a world in which community-led, life sustaining services prevent the harms that these violent systems claim to respond to, but often exacerbate (Davis, 2011; Gilmore, 2007). The abolition of policing and prisons is often critiqued as an unrealistic or utopian dream. To imagine a world without police and prisons requires a radical shift; such imagination is a collaborative learning accomplishment that enables abolitionists to engage in their practice. How then do we shift what is considered possible, and what people imagine justice could look like? This research asks how abolitionist organizers learn to facilitate for expanding abolitionist imaginaries and future-making.

This work takes place in Winnipeg, a city in central Canada, 60 km from the geographic centre of the continent. While much is made about Winnipeg being at the heart of Canada, the fact that Winnipeg is widely referred to as the most racist city in Canada reveals some greater truth about what lays at the heart of Canadian society. Winnipeg’s racism, in part, stems from its long history of Indigenous dispossession and settler colonial violence (Toews, 2018). In the last decades, this has manifested through dramatic increases in policing, imprisonment, and child welfare apprehensions (Dobchuk-Land, 2017). More recently, we have seen a proliferation of policing in everything from public libraries to grocery stores, justified through thinly veiled racialized language around the threat that Indigenous people pose. These shifts have not gone uncontested—a coalition of organizers from different communities have come together to fight for a vision of Winnipeg wherein mutual aid and investment in communities might create antiracist and anticolonial paths to community safety that do not rely on the harmful practices of policing, prisons, and family separation. As elsewhere, this coalition has struggled against mainstream attitudes that seemingly cannot imagine a city without police, or where safety means anything other than the securitization, surveillance, and foreclosure of public space.

This presentation builds from work in the learning sciences which attends to the political and ethical dimensions of learning (Politics of Learning Writing Collective, 2017; Veal, 2019), as well as learning in social movements (Takeuchi & Aquino Ishihara, 2021; Tivaringe & Kirshner, 2021; Uttamchandani, 2021). Over the last decade, this work has laid critical foundations within sociocultural studies of learning that emphasize the impossibility of neutrality (McKinney de Royston & Sengupta-Irving, 2019; Philip & Sengupta, 2021), the necessity of political struggle (Curnow & Jurow, 2021), and the importance of using the learning sciences toward more equitable futures (Booker et al., 2014; Politics of Learning Writing Collective, 2017).

This paper considers what an abolitionist methodology would look like, feel like, and prefigure. First, we describe our collective and the principles which underpin our collaboration. Second, we argue that work toward abolition requires a commitment to “slow justice” (Neville & Martin, 2022), which we exemplify through a participatory action research design that has centred relationship building, meal-sharing, skill-building, and mutual aid. We argue that walking is a key piece of our relationship building strategy during COVID-19, in that shared walks have created space for one on ones, strategic planning, and interpersonal check-ins in the face of otherwise isolating conditions. Some of these meetings are in our neighbourhoods, while many are at the rallies, protests, critical masses, and community meetings our comrades have organized. Walking, in this sense, is also a collective action, a solidarity-building exercise, and an intergenerational opportunity to build relationships and power simultaneously.

For the learning sciences, attention to an abolitionist methodology brings a politicized perspective and walking methodology to work on participatory design and reorients us toward world-building as an expression of political and ethical investments in the field. This extends the emerging work on walking methodologies (Marin & Bang, 2018) and learning on the move, and draws out the connections between these methodologies (Taylor, 2020) and the radical world building they can prefigure.

## **Paper 2: Walking together to heal: Anti-colonial relationality in learning with the land**

Miwa A. Takeuchi, Kori Czuy, Anita Chowdhury, Mahati Kopparla, & Sophia Thraya

Walking can simultaneously be methodology, pedagogy, and learning that weave in multiple intergenerational stories and knowings of the land (Hermes, Engman, Meixi, & McKenzie, 2022; Marin & Bang, 2018). This sensitivity to walking is rooted in Indigenous epistemology that centers whole body knowing grounded in “relationality—relationships with humans, more-than-humans, lands/waters, and mobility” (Marin, 2020, p. 281). For communities impacted by forced displacement and detachment from their homelands, resurgence of this relationality is a form of resistance to the destruction of the land and intergenerational knowledge (Betasamosake Simpson, 2014). For us, the act of walking *together* on the land, with people who sought refuge in “Canada” from war is a political collective action (Curnow & Jurow, 2021) that moves us toward healing. We view healing not as an individual act, but rather a political act achieved through “designing resilient ecologies” (Gutiérrez, 2016, p. 187). In this paper, we present the portraits of transdisciplinary learning that emerge through our collective action of walking together, toward healing from intersectional systems of oppression (Combahee River Collective, 1974) that affect both our participants and us as researchers. Our collective action to challenge intersectional systems of oppression is entangled with healing of the land who was damaged by the displacement of Indigenous communities who passed down intergenerational knowledge to live with the land and whose ecology was destroyed due to factory and road building in urban development.

We draw from participatory social design research methodology (Gutiérrez & Jurow, 2016), which centers historicity, diversity, equity, and ecological resilience as design principles, and aims to co-design just practices and futures in partnership with a range of communities. Our collaborative design aimed to re-center embodied and emplaced knowing for refugee children who come from traditional agricultural backgrounds, and whose intergenerational knowledge is often dismissed and disregarded in dominant school settings. By centering this community knowledge of soil, ecosystems, and socio-environmental justice, our design aims to leverage the valuable insights and expertise that refugee and immigrant communities offer. The designed program, called “Soil Camp” (<https://www.soilcamp.ca>), was held on a 30-acre community urban farm, that served as a space for refugee and immigrant communities to engage in local and sustainable agriculture with visions for decolonization and reconciliation with Indigenous communities (cf. Call 93 of the *Truth and Reconciliation Commissions of Canada: Calls to Action*).

Since the year of 2020, 85 refugee children have joined our program. 18 teachers and teacher candidates, mainly racialized multilinguals, joined us as facilitators. We as a team of researchers collected the following datasets: 1) video data, including Handycam video cameras and Go Pro cameras (worn also by teacher facilitators

and children), 2) “life notes” (Dillard, 2000, p. 661) taken voluntarily by us and the facilitators, and 3) art works, makings, and journals made by children.

In our presentation, we draw on both the Go Pro camera video footage of us walking *together*, and our life notes to provide a glimpse into the transdisciplinary learning that occurred as we pursued our collective hopes for healing. Our analysis was conducted collaboratively, guided by our life notes which embody “the meaning and reflections that consciously attend to a whole life as it is embedded in sociocultural contexts and communities of affinity” (Dillard, 2000, p. 664). Through this work, we present instances of our shared learning, such as when we developed shared understanding of number line and scale in the context of colonial histories of the land, which paralleled the refugee children’s experiences of colonization and displacement. We also depict our shared learning when the Western notion of pesticide and medicine was questioned during a walk that was shared between a Blackfoot facilitator, refugee children, and ourselves.

These portraits of learning collectively challenge apolitical views of walking, as our collective action of walking is fundamentally aimed at challenging the socio-environmental injustices that have long constrained the emergence and exchange of embodied and emplaced knowings connected to the land. Through our shared experience of walking together, we hope to mobilize land-based transdisciplinary learning toward socio-environmental healing.

### **Paper 3: Youth co-created photographic journeys that speak to more-than-human relations with nature, mobilities, and future oriented entanglements in the making**

Jrène Rahm

In this paper, I explore human-material-nature relations by tuning into two visual co-created data sets that emerged from joint work with youth in science clubs that I ran over time in collaboration with a community organization in the first case (ArtsScience from 2010-2013), and a high school in the second case (ScienceClub from 2015-2017). I assume that more-than-human relations are central to and constitute learning and development (Marin, 2020). By attending to nature-culture relations, I aim to “recover how relations and systems of meaning making between the natural world and cultural worlds” (p. 37) are articulated and lived by groups of urban youth who participated in the club activities. I ask, 1) what relations and storylines do the photographs taken by the youth speak to and center? and 2) how do they shift our gaze and understanding toward heterogeneity, multiplicity, and profusion as radically generative for educational research (Taylor, 2016)? I center entanglements of learning and becoming while also attending to the “multiplicity of identity, the mobility of meaning, and the contestability of knowledge” (p. 7). I am guided by Massey’s (2005) definition of space as “stories-so-far” and as essentially unfinished, yet telling of “interconnections between the past, present, and future” (Marin, 2020, p. 38). These ideas position place-based youth-initiated photography projects as stories still in the making, marked by interrelations and coexisting heterogeneity, and continuously reconfigured in light of new imaginaries and possible futures. Stories that speak to mobility, yet also place-making, and embodied perspectives of learning and becoming in and through re-awakened relations with nature and “worlding.”

The visual data sets I rely on in this paper were endorsed as an imaginary of being methodologically in the mesh (Ingold, 2011), engaging with the here and then, while also attending to the emergent (Taylor, 2016). The positioning of myself within the complex meshwork of the two data sets made visible the hidden while it permitted me to become attuned to more-than-human-relations and to be affected by the experiences I draw from and that emerged from walking with youth over time. In the first case, we physically walked with youth back and forth from their community to a summer camp in robotics and video game development led by an Engineering School. In the second case, we jointly walked to and within a summer gardening programing organized by the local Botanical Garden where youth were assisting educators of summer camps. Analysis was pursued by attending to the storylines captured by the photos and reflected upon in fieldnotes and journals that centered youth voice. Analysis was possible through reflexivity, remembering, and reawakening our joint walkings.

The first case engages with science and human-nature relations that youth captured on their way to camp and in their maker activities. Photographic journeys seemed to speak to the remaking of relations with more-than-humans, whereas the maker projects seemed to undermine the kinds of material-body entanglements the former supported. This case also offers a glimpse of how affect and sensations drive the taking and sharing of visuals of surroundings. It is a form of multispecies mapping that mediates the rebuilding of relationships with place, space, history and land and questions Eurocentric visions of science and becoming in science. The second case speaks to youths’ rebuilding of relations with nature and place, entangled with materials they previously never noticed or engaged with in the manner the camp suggested. Youth became immersed in nature as they walked the botanical

garden with the campers and through engagement in creative eco-art projects and working the soil, taking care of youth gardens and crops, and essentially by contributing to the common good—the well-being of self, nature and others within that community—all of which they captured through photography.

I conclude with implications including that visuals and walking methodologies are key tools to center bodies in motion, interrelations between bodies and nature, and socio-material configurations. They also offer rich insights into future oriented entanglements in the making.

## Paper 4: Walking alongside/towards desire: Re-thinking and theorizing through a desire-based lens

Sarah El Halwany, Rachael Edino, Sophia Marlow, Nadia Qureshi, Kristen Schaffer, Kristal Turner, & Jennifer D. Adams

Often, there is a tendency in research practices to focus on supposed needs and problems faced by racialized students in postsecondary education in an effort to mitigate experiences of marginalization and discrimination. Tuck (2009) argues that this kind of research unintentionally runs the risk of pathologizing communities, reinforcing a one-dimensional view of people. Tuck distinguishes between damage-centered research and desire-based research and calls for moving research towards crafting theories of change rather than damage (Nxumalo & Tuck, 2022). Inspired by Eve Tuck’s proposition, Leitão (2020) draws a parallel between needs-based research used by social designers and damage-centered research to argue how they both reproduce a model of life, whereby “what is ‘desirable’ is supposedly known from the start and/or externally defined” (Leitão, 2020, p. 2). Moreover, what’s desirable continues to be approached through “band-aid solutions.” This forecloses the creation of new possibilities and ways of world-making—where multiple centres can flourish, i.e., Pluriverse—while being driven by the desires of the communities with whom we engage.

As researchers in the Creativity, Equity and STEM lab we have been longing to be in different relationships with data. The #BlackLivesMatter movement raised awareness in Canada about racial inequities in society and specifically, education. As such, our team was mobilized to learn about the experiences of racialized students in postsecondary STEM in order to enact change. We became attuned to notions of desire while reading Eve Tuck’s work alongside other authors whose scholarship re-center desire as a productive and agentic force (Tuck, 2010) that is often neglected and/or relegated to the erotic/private (i.e., McKittrick, 2020; Zembylas, 2007).

In our presentation, we seek to reclaim desire, as an embodied force that moves us (metaphorically speaking) to craft new desirable worlds with our participants. We attempt to act on those desires by caring with our participants, rather than caring for them (Tronto, 1993). Caring for, in this context, sets the participants in a relation of indebtedness, claiming that they need our empathy and our externally defined solutions. On the other hand, *caring with* our participants compels us to center their own desires, in ways that can transform the world by claiming their dignity and humanness. In this way, we see desire as a *movement* that needs our special attention and care to design for a “pluriverse world” (Leitão, 2020). Often social design (e.g., research and pedagogical design) is limited to problem-solving, similar to a running race, directed by its finish line (Leitão, 2020; Nxumalo & Tuck, 2022). Instead, we view designing with desire as a point of departure for the researcher, where the research path is necessarily open and unpredictable, with the collective yearnings of the different stakeholders and the complex tensions that will necessarily arise along the way (Leitão, 2020).

We discuss how we are re-interpreting some of the data using a desire-based lens, positing creative and aesthetic analyses that attend to desire as an assemblage (Barlott & Turpin, 2022), gathering affirming ways of living and being. Those affirming ways of being entangle the quotidian with the structural. We join others who call for “befriending our desires” as a methodological commitment for “walking the talk” of allowing us to envision, new alternative, oppositional acts (hooks, 2014) of designing for equitable, just, and empowering STEM educational environments.

## Endnotes

(1) Author Note: We are intentionally resisting the APA 7<sup>th</sup> style that requires us to erase co-authors in in-text citations. This practice not only hinders communicating the sense of collaboration and co-authoring, but also makes invisible/erases the presence of co-authors in text, even when they contribute substantively. We are also concerned that the author order could be, in some cases, a manifestation of hierarchies and power negotiations and, instead, would like to recognize the collective contributions of all authors. Therefore, we are citing all the co-authors in in-text citations.

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