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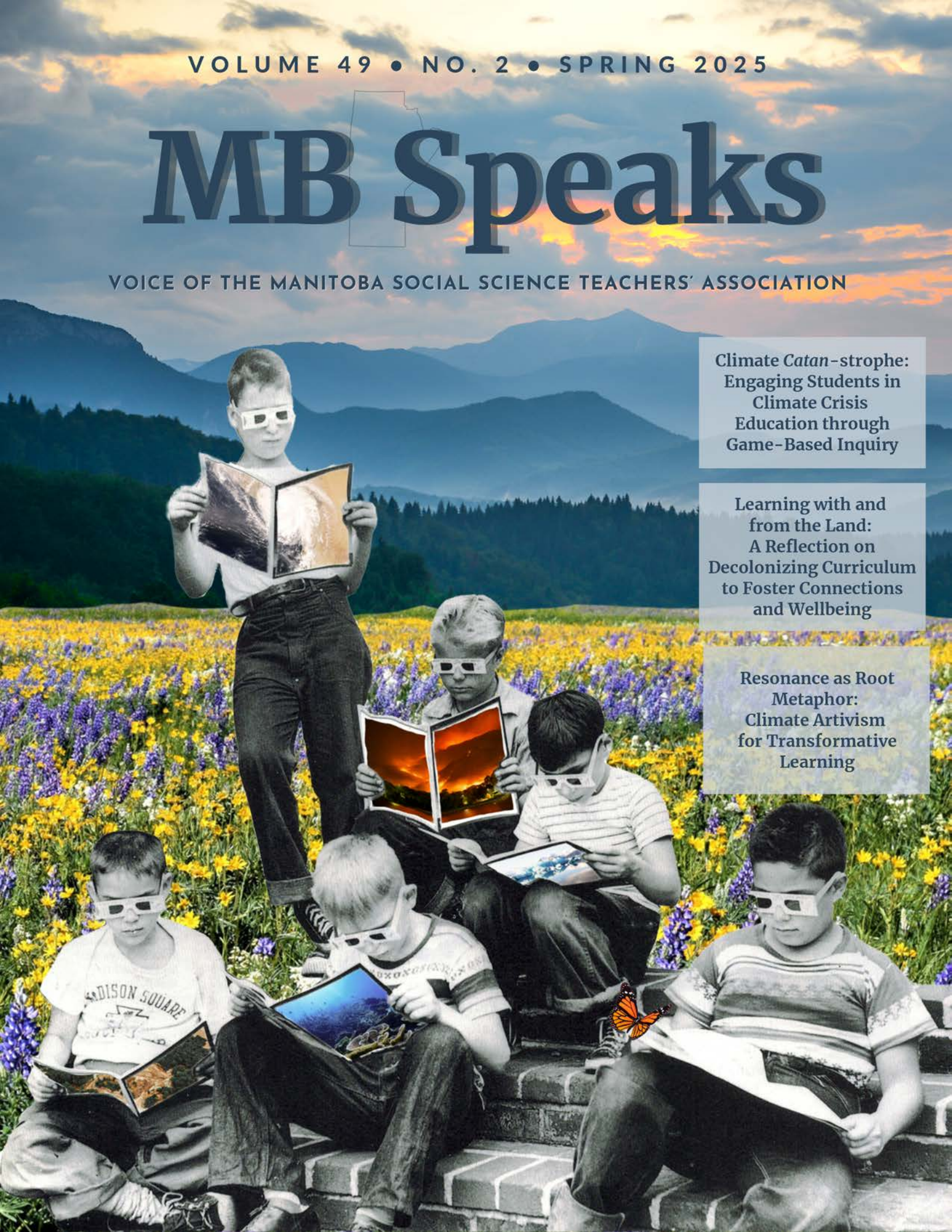
MB Speaks

VOICE OF THE MANITOBA SOCIAL SCIENCE TEACHERS' ASSOCIATION



Climate *Catan*-strophe: Engaging Students in Climate Crisis Education through Game-Based Inquiry

Learning with and from the Land: A Reflection on Decolonizing Curriculum to Foster Connections and Wellbeing

Resonance as Root Metaphor: Climate Artivism for Transformative Learning

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"It is therefore also imperative that young people are heard by decision makers, feel heard, and have access to diverse safe spaces to voice their experiences of climate change and priorities for climate action."

-Galway and Field (2023)

President's Message

As you may know, one of MSSTA's goals each year is to provide quality professional development that promotes and advances the teaching of the social sciences across the province. Our 2024 MTS PD Day conference theme was "Environmental Changemakers: From Awareness to Action". It was a wonderful day of learning, including a keynote address from Clayton Thomas-Müller, an activist in the areas of Indigenous rights and environmental justice. We offered over 50 sessions on a variety of topics, many of which related directly to climate education and action. Some sessions involved educators exploring the land, touring The Leaf at Assiniboine Park and learning about sustainable and active transportation options. One highlight of the day was the creation of collaborative mural during a session around climate artivism, where conference attendees had the opportunity to explore climate action through the arts.

We chose this theme because we recognized that even our youngest students are familiar with the phrase "climate change" and know that it is impacting the world around them. One might assume that this awareness means that students are empowered and ready to take action to protect our planet, however in actuality, educators are encountering increasing levels of eco-anxiety and eco-apathy among students across the grade levels. To combat these feelings of defeat and helplessness, educators must provide opportunities for our students to explore climate change through a solution-based and action-oriented perspective. I know that many educators left our conference feeling empowered and excited to put their new learning into practice, but as with any attempt to make real change, the commitment to learning and growing needs to be ongoing. In an effort to help our members continue to engage with this theme, MSSTA has decided to dedicate this issue of *MB Speaks* to exploring ways to promote meaningful climate action in Manitoba classrooms.

In this issue of *MB Speaks*, our authors explore a range of topics related to climate action and land-based learning. Some of the articles explore new and innovative ways to re-engage students in these topics, such as game-based inquiry, climate change simulations and climate artivism, while others explore the need for a shift towards climate justice education and the potential positive impact of land-based learning on wellbeing. You will also find a variety of professional development opportunities and resources which can help you move forward in your efforts to provide your students with opportunities to witness and enact real change. With that, it is my pleasure to share the latest edition of *MB Speaks* with you!

Sincerely,



Angie Waite



From **Climate Change Curriculum to Climate Justice** in the Social Studies Classroom

-WILL BURTON

Introduction

While social studies teachers across Manitoba await the much-needed redesign of the K-10 curriculum documents from Manitoba Education, two questions for the climate-conscious social studies teacher may arise: what are the current opportunities with the social studies curriculum for including climate change content, and what gaps exist that should also be drawn into classroom learning? This article will begin with a brief overview of climate change learning outcomes in the compulsory K-10 social studies curriculum before outlining three key considerations for going beyond the curriculum.

Climate Change in the Manitoba Curriculum

At present, there are only four explicit references to climate change in the compulsory Manitoba K-10 curriculum. Two of these outcomes are in the grade 10 science curriculum, with the other two in the grade 7 social studies curriculum (*7-KL-026 Identify human activities that contribute to climate change; 7-KL-027 Describe social, environmental, and economic consequences of climate change*). While this may on first read seem limiting, teachers can interpret other curriculum outcomes in ways that offer pathways for introducing climate change content into classrooms, through *climate-adjacent* outcomes. For illustrative purposes, I will briefly focus on climate-adjacent outcomes in grades 1, 4, 7 and 10.

Climate-Adjacent Outcomes

In **grade 1**, *Cluster 2: My Environment*, outcomes can be organized in ways that invite students to explore and understand the importance of the local and global environment, and that encourage valuing the beauty of the natural world. There are opportunities here for students to differentiate between human wants and human needs and strengthen their connection to the local environment through development of personal and group actions plans for a healthy environment.



In **grade 4,** physical and human geography is explored in Manitoba, Canada and specifically Canada's North. Layering an understanding of different eco-zones in Canada with how climate change is uniquely impacting these communities can be pursued through storytelling – an instructional method which is explicitly identified in the curriculum documents.

Grade 7 social studies is the most thorough curriculum for climate change. A whole year of learning could be oriented around climate change and its disparate impacts. Beginning with *Cluster 2: Global Quality of Life* can offer a foundation for learners to return to the topic of wants and needs, and build on it with inquiries into consumerism, technology, and government. In particular, the curriculum documents specify the need for international cooperation, which could lead to considerations of the role of the United Nations and Intergovernmental Panel on Climate Change (IPCC).

Grade 10 social studies might be the last chance for a student to learn about climate change in formal education. The intention for this curriculum is to provide direct instruction on geographic skills and task students with applying them to issues or problems and have learners propose solutions. Focus areas can include natural resources, food production and distribution, industry and urbanization across North America and the world and how they intersect with a changing climate. The curriculum documents specifically detail how social, political and economic lenses could be applied to these topics.

These are just a handful of examples from the social studies curriculum outcomes, however there are additional entry points that can be found across the K-10 social studies curriculum. A sample of which is included in Table 1. My research has found that across the K-10 social studies curriculum there are 58 climate-adjacent outcomes, with concentrations in grades 3, 5, 7, 9 and 10. As many K-8 social studies teachers are generalist teachers and have the opportunity to draw other disciplines into the classroom, there are further opportunities to do so with 14 climate-adjacent outcomes in the K-8 science curriculum. Extended information of where environmental outcomes are located in curriculum documents can be found in the Education for Sustainable Development Correlation Charts (Manitoba Education and Early Childhood Learning, 2025).



Table 1: Climate change-adjacent outcomes

Grade	Specific Learning Outcome (SLO)
K	*Give examples of how the natural environment influences daily life. Examples: work, play, clothing…*
1	*Recognize that people depend on the environment for survival*
2	*Give examples of ways in which the natural environment influences their communities*
3	*Recognize that people around the world have basic human rights. Examples: access to food, water, shelter, a secure environment, education, fair and equal treatment…*
4	*Identify issues related to environmental stewardship and sustainability in Manitoba.*
5	*Explain how human health may be affected by lifestyle choices and natural-and-human caused environmental factors.*
6	*Give examples of global events and forces that have affected Canadians from 1945 to the present.*
7	*Describe the impact of various factors on quality of life in Canada and elsewhere in the world.*
8	*Appreciate the importance of sustaining the natural environment for future societies*
9	*Evaluate the implications of living in a consumer-based economy.*
10	*Describe sustainability issues related to natural resource extraction and consumption.*

Going Beyond the Manitoba Curriculum with Climate Justice

Climate change is global in its reach but unequal in its impacts. Specific groups of people, namely those living in the global south, as well as racialized people from lower socio-economic groups, especially those in rural/remote regions of the north have, are and will continue to be more vulnerable to rising heat, violent weather, sea-level increase, air pollution, plague, crop failure, wildfires, freshwater loss, and ocean acidification (Wallace-Wells, 2019). Economic vulnerability, political instability and warfare as well as the scramble for dwindling natural resources will lead to increasing efforts to migrate (Vince, 2022). Despite the established presence of climate change content in curriculum documents, this knowledge is not contained in the compulsory K-10 social studies curriculum.

A contributing factor to the absence of these realities in the Manitoba K-10 social studies curriculum is that it was informed by the ideals of Education for Sustainable Development (ESD). It is beyond the parameters of this article to fully explore the critiques of ESD (See Burton, 2025 and Link & Burton, 2025 for more detail). What should be understood however, is that ESD is guided by two premises:

first, that a healthy and sustainable environment is possible within the logics of capitalist development; second, that individual responsibility is the primary vehicle for balancing human needs with maintaining a healthy environment. Through the United Nations, ESD is also a framework guided by Western European epistemologies and often silent on Indigenous perspectives. These premises run contra to the prevailing consensus from climate change education scholars (Field, et al., 2023; Huckle & Wals, 2025; Iyer & Brett, 2024; Long & Henderson, 2023; McKenzie, Henderson, & Nxumalo, 2023; Stein, 2024).

As many climate change education scholars contest the ESD paradigm there is an increasing embrace of critical pedagogy within climate change education, in what is often called 'Climate Justice' (Klein & Stefoff, 2021; Roderick, 2023). Concerned with inequities in society that divide and exploit people based on class, race, gender and sexual orientation (with these identities often intersecting), critical pedagogues look to education as a space to work against these structures in an effort to create a more just society. There is a natural extension of this work into climate change education.

Long and Henderson (2023) consider climate change education as a 'superordinate curriculum', that is, one which, "exist super-structurally, above all others in a hierarchical system" (p. 75). Shifting its role from subordinate or 'null' (Eisner, 2005), to superordinate will require challenging and replacing a curriculum which accepts and reproduces a capitalist economic and settler-colonial disposition. Aligning with other climate change education scholars then, means turning away from an educational framework that fails to name the human thoughts and actions that perpetuate cycles of violence against the planet, and making space for the political element inherent in climate change education through a framework of climate justice.

What follows are four principles of climate justice, specific to the Canadian context. To be clear, these are not content guidelines, but provoke consideration from the social studies teacher to challenge curriculum document discourses and dominant cultural, economic, and political narratives.

Firstly, it is widely recognized that colonialism has exacerbated the threat climate change poses to the well-being of people and the future of life on planet earth. In the 2022 Intergovernmental Panel on Climate Change Report (IPCC, 2022) the group stated with 'high confidence' that acts such as control and exploitation of another group's territory was linked to increased carbon emissions and raised threats to colonized peoples. And so, by including the links between colonialism and climate change in this recent report, "the IPCC is sending a message to the governments and policymakers of the world that addressing the effects of climate change cannot be achieved without also addressing the legacies

of colonialism" (Mercer, 2022, n.p.). As Andreotti (2021) reminds us, colonialism is not an event from the past, but one that continues to this day. Without a sustained global effort to reduce reliance on fossil fuels and critical minerals for industrial development, colonizer nations will increase their intensity for securing these non-renewable resources.

Secondly, proposals of how to mitigate the worst impacts of climate change and adapt to a vastly different relationship with the planet and each other increasingly include the presence and voices of Indigenous peoples. Relationality to land is central to historical and contemporary Indigenous ways of living (Simpson, 2014) and this perspective has meant that Indigenous land stewardship is superior to government policy for limiting carbon emissions and ecological degradation (Schmelzer, Vetter & Vansintjan, 2022). In Canada, the land-back movement – that is, the repatriation of land back to Indigenous peoples as part of the reparations for broken treaty agreements - is vital to the movement for climate change mitigation and adaptation. It is also why efforts by Indigenous land defenders and allies face such violence from the state when their efforts to protect territory from fossil fuel extraction or transportation infrastructure, with Standing Rock First Nation in North Dakota (Estes, 2019), and Wet'suwet'en First Nation in British Columbia (Alook, et al., 2023) two well documented recent examples.

Thirdly, that the failure to reign in carbon emissions is that climate change is foundational to capitalism, specifically neoliberalism, the dominant economic model of many nations. Neoliberalism was a political project initiated in the late 20th century to liberate the economy and individual or corporate actions within it from the state. Neoliberalism was however, only made possible by extraction of non-renewable natural resources, and specifically the exploitation of the environmental commons (Harvey, 2007). Fossil fuels, particularly oil, are an incredibly powerful energy source, harnessed to power industry; it is therefore no surprise that their availability as a cheap source of fuel is tied to economic productivity and gross domestic product (Homer-Dixon, 2010). As Rich (2019) has meticulously detailed, it was a sustained effort by oil and gas companies in the 1980s to dissuade the Reagan Administration in the United States away from policies which would curb oil extraction and carbon emissions. The success of this campaign would then initiate ongoing strategies by these same companies to seed doubt in the general public of the scientific consensus on climate change being human caused (Dembicki, 2022). However, in recent years as fossil fuels supplies have dwindled and become harder to access, the energy return on investment (EROI) has increased, alongside plummeting costs of renewable energy (Homer-Dixon, 2010). In short, the decision in Canada to prioritize fossil fuel exploration, extraction, transportation and consumption, is a political one.

Fourthly, any serious effort to curb carbon emissions and transition to a carbon-neutral (or carbon-negative) way of life will depend on national and sub-national government policy and enforcement. At present, save for a brief dip during the Covid-19 lockdowns, greenhouse gas emissions have flatlined in Canada, with modest efficiencies in non-renewable energy filled by increased demand. The three levels of government in Canada have shown an unwillingness to engage in policy and investments commensurate with the need for whole-sale change (Klein, 2020). This is where the notion of 'climate justice' intersects with climate change education. Climate justice is considered by Naomi Klein as "multitasking" recognizing that "We need responses that are truly intersectional. So how about as we decarbonise and create a less polluted world, we also build a much fairer society on multiple fronts" such as addressing the health, housing, inequality, racial and climate emergencies as part of the same work (de Trenqualye, 2023). As many authors have contested, if we are to address climate change in a way that protects individuals and communities most at risk from the economic shifts required, then a 'just transition' is needed. Two of the most theorized approaches are either through degrowth (a managed drawdown of fossil fuel consumption and decoupling of gross domestic product as a metric of well-being) or a green new deal (a massive injection of money into climate change mitigation and adaptation infrastructure projects) (Kunkel & Seaton, 2023). History warns us that societies under stress gravitate towards extreme political platforms (Snyder, 2017), of which we can see manifest as periodic outbursts of eco-fascism that target BIPOC communities such as in Christchurch and El Paso in 2019, and Buffalo in 2022 (Richards, Jones, & Brinn, 2022).

Conclusion

It is not possible to separate the significant social, economic, cultural and political changes required to mitigate the worst impacts of climate change and adapt to the mounting challenges present in our communities without transforming how humans as individuals and collective societies see themselves and their relationship with the natural world (Kwauk & Casey, 2022).

At present, the K-10 social studies curriculum offers entry points through climate-explicit or climate-adjacent outcomes for bringing climate change content into the classroom. However, the work of a social studies teacher can extend into climate justice in order to present a perspective more responsive not just of the current scientific realities of climate change, but how these are impacting communities on a local and global level. What the aforementioned four principles of climate justice have in common are the role of Indigenous peoples, land and the relationship all people in Canada have with the state. They are indeed challenging issues to grapple with, but can be introduced for young people to consider, debate and spur inquiry that shifts them from 'personally responsible' to social-justice oriented citizens (Westheimer, 2011).

Coupled with the superabundance of data on current and future life in a 'post-climate change world' (Vince, 2022), findings from research with youth from Galway and Field (2023) led the authors to state, "young people feel powerless and betrayed and do not feel cared for, valued, or protected when it comes to climate change and Canada's response. It is therefore also imperative that young people are heard by decision makers, feel heard, and have access to diverse safe spaces to voice their experiences of climate change and priorities for climate action" (p. 6). But if this content is to be facilitated honestly and effectively, space needs to be made for engaging more deeply with the underlying causes of climate change and how they are perpetuated within Western industrial society. This is the call of climate justice.

About the Author



Will Burton (PhD (c)) is a lecturer in social and environmental education at the University of Winnipeg. He spent a decade as a classroom teacher and school leader at the Early and Senior Years level in Winnipeg, working in traditional and alternative programs. Will's research is currently focused on place-based education theory and practice, climate change education in the Kindergarten to post-secondary system in Manitoba. Will is currently a PhD candidate in Educational Studies at Lakehead University.



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Resonance as Root Metaphor:
Climate Artivism for Transformative Learning

-HEATHER MURPHY ECKTON



Figure 1. MSSTA MTS PD Day, Climate Artivism (from left to right): Dr. Bruno de Oliveira Jayme, MSSTA President Angie Waite, Heather Eckton, Riane Kandia, Leah Fontaine

Throughout history, art has been a powerful agent for social and ecological thought, giving a voice to complex challenges and inspiring change. Climate Artivism is a fusion of art and activism that invites creative expression to inspire climate action, transformative learning and shifting paradigms through emotional, intellectual and cultural resonance. This creates space for the crucial intersectionality between climate action, eco-emotions, and well-being, recognizing how interconnected they are to one another and also engaging learners in new ways of knowing, being, doing, feeling and becoming. Young people are leading the climate justice movement, but are also bearing the burden of climate anxieties and uncertain futures (Bright & Eames; 2022; Galway & Field, 2023).

Through this article, I will discuss the need for active hope and quality Climate Change Education (CCE) in the context of the broader aims of education and Manitoba's new Framework for Learning. I will also share my journey of Climate Artivism as a collaborative, arts-based inquiry with K-12 learners and educators. By exploring how this arts-based approach creates opportunities for transformative learning, guided by each child's unique North Star, I will share how climate change, Indigenous epistemologies, and contemplative, holistic and integrative practices can be woven into curricular and pedagogical approaches in schools. Once completed, this art collaboration will involve hundreds of students and teachers from across Manitoba, in creating four individual collective

art panels, with a total of 280 painted tiles, while a nature soundscape amplifies the experience of engaging with the art.

Active Hope: Moving Towards Well-Being

Many educators are confronted with the climate anxieties their students experience, and declining rates of well-being in their classrooms, but often feel uncertain about how to address them. Some schools with good intentions, bring in social-emotional learning programming to help kids cope with these stresses (Roderick, 2023). However, investing in psychological solutions to societal and ecological problems, does not replace the need for broader systemic change (Shirley & Hargreaves, 2022). If we truly want to support student well-being, we need to address the root causes of eco-social injustices. Schools have an ethical responsibility to guide children and youth through the urgent challenges we face such as climate change, mass extinction, growing inequalities, increased conflict, and the rising cost of living, in compassionate ways (Hathaway, 2017; Roderick, 2023; Windschitl, 2023). Macy and Johnstone (2012) emphasize that active hope involves providing learners with meaningful opportunities to engage and respond to challenges facing our world, rather than simply hearing about them, describing this story as The Great Turning for humanity. Similar to Freire's emphasis on an emancipatory ontological need for hope, active hope empowers learners to engage with the world's challenges (Freire, 2021). Meaningful changes in addressing the climate crisis are best achieved when we listen to our students' visions for a more beautiful world, and empower them to collaboratively contribute to the solutions. One key way this can be achieved is through action learning, where students are empowered to engage with these critical issues directly (Morin, 2019). By participating in collaborative community actions as an integral part of their lived experience through K-12, students not only contribute to solutions, but experience active hope firsthand.

The Need for Quality Climate Change Education in Manitoba

Didactic approaches to learning about the causes and effects of climate change have shown that they do not significantly lead to the actions required, and more importantly, the transformational learning needed to address these issues (Csutora, 2012; Field et al., 2023). Indigenous ontologies share wisdom of different ways of knowing, being, and doing that emphasize reciprocity and relationality with the Earth (Grenz, 2024; Kimmerer, 2024). CCE requires a shift towards ecological consciousness, that challenges Western capitalist ideology of land as solely a resource for economic gain, rather than a sacred relationship (Kimmerer, 2024; O'Sullivan & Taylor, 2004). Deep listening of personal

stories by those most impacted by climate change, toxic pollution, unsafe drinking water, and forced migration due to flooding, drought and forest fires, reveal ongoing injustices of modernity and colonialism (Machado De Oliveira, 2023). It is essential to ensure that Indigenous communities and those in the Global South, who are disproportionately affected by this sort of environmental racism, are included in shaping and implementing the solutions (Swinehart, 2024; Grenz, 2024). Additionally, we have an ethical responsibility to advocate for the protection of species, lands, and watersheds affected by climate change, as they are vital to our health and wellbeing. If we are truly committed to climate action, there must also be space in schools for critical discourse and democratic dialogue surrounding the root causes of climate change such as globalization, colonialism, advanced capitalism and neoliberalism in order to avoid repeating the same colonial futures (Becker et al., 2021; Freire; 2021; Machado De Oliveira, 2021; Stein et al, 2023).

To those who question the role of CCE in our schools, I respectfully ask two questions: If not in schools, then where should we prepare the next generation for addressing the most pressing challenges of our time? If not now, then when? The Intergovernmental Panel on Climate Change (2022) warns that later is simply too late, and we must reduce carbon emissions by 43% by the year 2030, to avoid the worst impacts of climate change and net-zero global emissions by 2050. It's a sobering thought, but this is not a distant problem, and we need everyone's participation in climate adaptation and mitigation (Windschitl, 2023). Children entering kindergarten next year will be 80 years old in the year 2100, and climate change is already greatly impacting humans and the more-than-human world.

The Aims of Education and Honouring Every Child's North Star

Education can play a crucial role in supporting the goals of well-being *for all*, encompassing humans and the 8.7 million other species, supporting planetary regeneration and lasting peace (Kelsey, 2020; Hargreaves & Shirley, 2021; Roderick, 2023). This aligns with the broader purpose of education, which extends well beyond imparting knowledge and preparing for careers or post-secondary, to empower learners to engage meaningfully in the world, guided by their North Star. I define a North Star as one's 'larger-than-self goals' (McGonigal, 2016), leading toward a purposeful life in line with one's core values, and deepest cares, serving a new story of human and ecological flourishing (Eckton, 2024). Pursuing larger-than-self goals helps to meet the world's needs while enhancing well-being and purpose in one's life (McGonigal, 2016). I believe education has the power to guide students toward discovering their North Star, those larger-than-self goals that align with

their gifts and values. This path leads to a more purposeful existence, where we are in service to both our relational well-being and the greater good. Given the complex, interconnected global issues that the current generation will inherit, the ethical response is to prepare youth with both in-depth learning and contemplative, holistic and integrative practices for well-being, while also equipping them to adapt and mitigate climate change in meaningful ways.

Manitoba's New Framework for Learning

Manitoba's new framework for learning provides ample opportunities for students to serve their North Star across disciplines, leading to Mino-Pimatisiwin -The Good Life (Manitoba Education and Early Childhood Learning, 2024). Mino-Pimatisiwin supports learning through "hope, belonging, meaning, and purpose" while giving students a voice and active role in shaping their futures (Manitoba Education and Early Childhood Learning, 2024, para 2). The vision of living a purposeful life is also outlined within the framework in Mamàhtawisiwin: The Wonder We Are Born With. The following Indigenous wisdom is shared "when we are born into this world, we come with a gift to help people live a good life. A person becomes an okihcite (great heart) when they begin to share the gift" (Manitoba Education and Early Childhood Learning, 2022, p. 7). The Framework for Learning also includes Manitoba's Global Competencies which considers complex ways of knowing, being, doing and becoming in holistic ways that allow for transdisciplinary approaches to learning (Manitoba Education and Early Childhood Learning, 2024). I suggest that in practice, global competencies be guided by a student's North Star and larger-than-self goals. In this context, critical thinking, creativity, connection to self (and relational empathy for others), collaboration, communication, and citizenship, can all contribute to learning how to create a more beautiful world, rather than simply accepting the world as is.

Conceptualization of the Action Inquiry

This Climate Artivism project was conceptualized with the help of Dr. Bruno de Oliveira, visual artist and award-winning art educator at the University of Manitoba, and Scott Durling, an innovative middle-years educator in Seven Oaks School Division, and an executive member of Educators for Climate Action Manitoba (ECA Mb). We began by gathering for purposeful dialogue on how Climate Artivism can lead to meaningful social and ecological transformations. This project became an ideal choice for a large group climate action inquiry while engaging over 280 educators, children, and youth through the arts. As this project evolved, our team grew to include Leah Fontaine, Anishnaabe/Dakotah/Métis, scholar, educator, and artist.

Riane Kandia, a passionate early years art educator and Jennifer Engbrecht, an inspiring Métis music and outdoor educator who guided the Nature soundscape composition with K-6 students and of course, the hundreds of creative participants.

Inquiry Question and Provocations for the Climate Artivism

This action inquiry was motivated by the following question: *How can schools help learners navigate by their North Star, embracing multimodalities and complexity entangled with their gifts and values, to lead purposeful journeys toward transformational learning and a more beautiful world?* Multimodalities refers to the diverse ways in which we communicate and make sense of the world through varied approaches beyond the traditionally privileged written language, fostering a depth of learning (Campbell & Olteanu, 2024). From this inquiry question, a series of emerging questions developed and became the provocations for each art workshop following themes of awareness, action and transformation, including another dimension of a nature soundscape. For example, Manitoba Social Science Teachers' Association educators at Manitoba Teachers' Society professional development day, were asked to reflect on this provocation: *What is the emotional weight social studies teachers carry when teaching wicked problems like the climate crisis?* This centered on the theme of awareness. At the UNESCO/Learning for a Sustainable Future (LSF) Climate Action Youth Forum, where the art created was inspired by muskrat that led to creation of Turtle Island, children and youth were asked: How does your journey as muskrat look like within Climate Action? This explored the theme of action. Finally, the last provocation: What is your North Star for climate action leading to a more beautiful world? This highlighted the theme of transformation.

Indigenous Storytelling

As per traditional protocol, Leah Fontaine accepted to share her art skills and abilities by drawing the vision for this project. Her vision included the North Star, a symbol of guidance for the art piece. Using art tools and inspiration, Muskrat, *wazhashk* (anishina-bemowin), will act as the catalyst, along with North Star Women, in aiding and guiding young students in developing the representation that will provide the holistic context of the story. These images were conveyed further through her storytelling at our various climate action forum gatherings.



Through a series of provocations, and vision of Anishnaabe creation stories, participants developed their visual literacy and were given relational agency in transmediating their responses through the medium of paint and visual semiotics.

Nature Soundscape

Inspired by my participation in the Contemplative, Holistic, and Integrative Education cohort at the University of Manitoba and by the mentorship of Dr. Beryl Peters, I wanted to extend this Climate Artivism into musical and ecological literacies. This expansion aimed to further extend resonance as a root metaphor. This came to be reality on December 13, 2024, when K-6 students at the UNESCO/LSF Climate Action Youth Forum, led by Jennifer Engbrecht, began composing a Nature Soundscape to accompany the Climate Artivism under her guidance.

Contemplative, Holistic, and Integrative Approaches to Climate Artivism

By embracing contemplative, holistic, and integrative approaches to well-being with learners through relational agency and Climate Artivism, we can move towards transforming feelings of fear, defeat, and apathy into connection, empowerment, and hope (Galway & Field, 2023; Kelsey; 2020; Baudon & Jachens, 2021). In the art workshops, responses to these provocations through artistic expression come together to form a larger mosaic artwork, symbolizing community actions and unity. Contemplative well-being in education allows for curriculum and pedagogy to be a lived experience through ontological ways of knowing, being, doing and feeling (Bai et al., 2018). This approach to curriculum and pedagogy fosters new possibilities, embodied learning and well-being through relational agency, which traditional didactic methods often fail to achieve. Holistic ways of learning allow the interbeing of all aspects of self to be actualized, the physical, mental, social, and emotional dimensions, allowing for "holistic ways of perceiving and approaching the world" (Bai et al, 2018, p.109). Lastly, the integrative aspects of well-being allow a transdisciplinary approach to problem solving complex challenges like climate change, embracing the complexity of in-depth learning to facilitate real-world systems change (Windschitl, 2023).



Transformative Learning

Transformative learning is supported by

engaging our mind, heart, and hands in meaningful action in line with our North Star, and reconnecting to our ecological selves. Disrupting anthropocentrism through relational agency to the Earth, allows us to discover "other ways of knowing/being/doing" thereby challenging the myth of human/nature dualism (Dernikos, 2020, p.428). This is paramount, as climate change is both a symptom of our disconnection to the Earth and denials of this entanglement, as well as the unchecked eco-social injustices of our energy intensive lifestyles and consumerism in the global North (Stein et al, 2023).

Concluding Thoughts

What began as a Climate Artivism inquiry question led to a several-month-long journey of 'Growing the Good' with students and educators through climate action partnerships and possibilities. The Climate Artivism and Nature Soundscape Exhibition will open to the public on May 22, 2025, at the Canadian Museum for Human Rights at the Be an Upstander Showcase. This exhibition will immerse attendees in affective literacies, inviting them to explore their emotions through the sounds and art of Climate Artivism and the Nature Soundscape. This is also an opportunity to be inspired by students from the UNESCO Associated Schools Project Network (ASPnet) of Manitoba who will be showcasing their student-led climate action initiatives. Our capacity for action and the transformations required are often limited by our own false beliefs about what is possible. As I reflect on the past several months, my biggest takeaway is that climate action is not an individual endeavour. Collaborative community action and action learning in schools present opportunities for transformational, systemic change in the real-world. We must replace the notion of the impossible with a belief in imagined and lived possibilities. Together, we can navigate toward a more beautiful world, guided by our North Star.

Acknowledgements

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Pozzer, and Dr. Bruno de Oliveira for introducing me to Climate Artivism as a methodology, and to the rest of the team—Leah Fontaine, Riane Kandia, and Jennifer Engbrecht—for their dedication. To each child, youth, educator, and community member artist-participant, thank you for sharing your ways of knowing, being, doing, and feeling through the arts, purposeful dialogue, and your vision and actions for a more beautiful world. While countless individuals have contributed to this project, it is through our interconnectedness that this work has come to life.

About the Author

Heather Eckton has devoted over twenty years to public education and is an advocate for amplifying student voices. Currently, she serves as the Climate Action Divisional Teacher Team Leader in Seven Oaks School Division, supporting climate action across 28 K-12 schools and whole-school approaches to quality Climate Change Education. Heather is an active member of Educators for Climate Action Manitoba, the UNESCO Associated Schools Project Network in Manitoba, and the founder of the Sustainable Living Academy Manitoba (SLAM). She is a SSHRC Doctoral Fellow and Ph.D. candidate at the University of Manitoba, where her research focuses on quality Climate Change Education and transformational learning.



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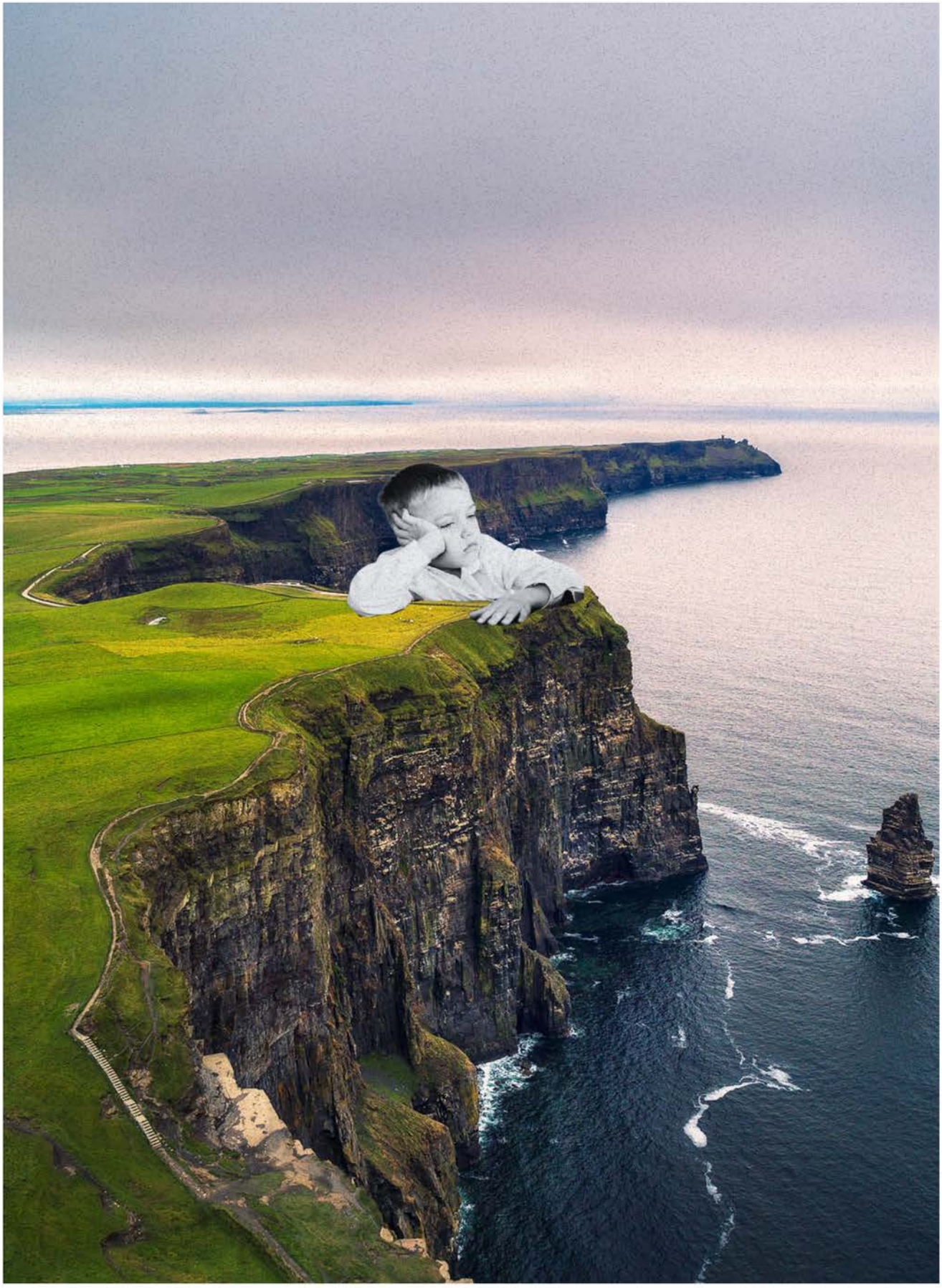
Appendix – Additional Figures



Figure 2. MSSTA MTS PD DAY: Educators creating Climate Artivism (Eckton, Oct 25, 2024).



Figure 3. North Star Woman.



Climate *Catan*-strophe:

Engaging Students in Climate Crisis Education through Game-Based Inquiry

-CONNOR HOPPER

As I talk to my friends and colleagues about my excitement for my upcoming Geographic Issues of the 21st Century course, I am met with skeptical looks. “Isn’t that just turning on the news and seeing how doomed we are?” my partner asks, sardonically. I imagine my Grade 10 students have a similar line of thinking, particularly when “issues” is a keyword in the name of their upcoming course. Though colloquially known as Grade 10 Geography or GEO20F in the province of Manitoba, Geographic Issues of the 21st Century is nominally an issues-based course.

Many questions weigh on the teaching of this course. What is the value of providing students knowledge of these issues? How are students meant to handle the stress of this knowledge, and of the climate catastrophe specifically? Amidst this stress, how can students begin to enact the necessary change to address these often overwhelming issues? Despite the wording of the Specific Learning Outcomes (SLOs) of the Manitoba Curriculum (Manitoba Education, Citizenship and Youth, 2006), I believe that teaching about geographic issues should be less about depositing grim information and more to do with inquiry. To engage or re-engage students who may be understandably demoralized by eco-anxiety, I propose that games-based learning (GBL) encourages inquiry and is an emotionally safe and pedagogically ethical vector for addressing environmental crises.

The Unavoidable Truth

Even as far back as 2006 when the current curriculum document was made, Grade 10 Geography recognized climate change (Manitoba Education, Citizenship and Youth). What is better understood now is how the mounting evidence of human-influenced climate crises impacts a person’s mental health. There are a variety of terms for the feelings educators and students alike feel when addressing ecological change; they are as nuanced and different as they are valid (Pihkala, 2020, p. 1). For the sake of brevity, we will adhere to Pihkala’s umbrella term of “eco-anxiety.” What is known thanks to scholarly research (Pikhala, 2020; Léger-Goodes et al., 2022) is that engaging with knowledge surrounding climate change and climate crisis has a measurable negative impact on the

emotional and mental health of students. However, the recommendation is not to avoid the learning, rather to learn in ways that allow students to be active participants in environmental education rather than passive subjects of the knowledge (Léger-Goodes et al., 2022, pp. 10-12). A conscientious curriculum and considerate pedagogy should be a safe but authentic platform for students to engage in the world in a way that permits progressive coping strategies with the challenges environmental education puts forward.

The Curriculum Falls Short

Beyond what we know of the impact of the information, the curriculum–more accurately, the curriculum document–does not rise to the challenge of either the climate crises or how blunt information may impact students. At just under twenty years old, the GEO20F curriculum struggles to follow through on its proposed ideology. The term "inquiry" is mentioned 127 times throughout the document but only ever as a loose concept (Manitoba Education, Citizenship and Youth, 2006). I believe it intends to be understood as inviting diverse and creative approaches to student-led research on topics that derive from the course's rigid and prescriptive laundry list of outcomes, but at no point does it elaborate on what inquiry is, nor does it provide any frameworks or conceptual proposals for an inquiry project. Instead, most educators in Manitoba may be more familiar with the "Grade at a Glance" poster (Manitoba Education and Early Childhood Learning, n.d.) that presents such banal and rote expectations as "be willing to consider the implications of personal choices regarding natural resources." The verbiage here is so dense, detached, and convoluted that I doubt a lawyer could decipher the actual learning outcome and how it might be assessed; worse still is that this is one of only three educational objectives of "Sustainable Development" as a concept. The poster, again a simplified culmination of expectations from the Government of Manitoba, rarely deviates the learning goal from the words "Identify issues related to such-and-such" (Manitoba Education and Early Childhood Learning, n.d.). As mentioned above, identifying the issues is something students have already done before they get to Grade 10 Geo, and the impacts are detrimental to student health. For the sake of students and the environment, education must go deeper than mere identification and consideration.

Inquiry and Games

Though not found in the curriculum document itself, Manitoba Education and Early Childhood Learning (n.d.) does offer an explanation of its intended inquiry process. It affirms that inquiry is meant to develop from student curiosity, that the teacher facilitates as a reflective practitioner and keen observer rather than a depository of knowledge, and that students

have an essential role as a reflective and active learner. These criteria, again, are not satisfied by the wording of "be willing to consider X" or "identify issues of X." I propose that playing a game would be better suited to initiating curiosity and creating opportunities for observation that may not be so eco-anxiety-inducing.

Game-based learning is not a new concept. It can be the act of taking an existing game and deriving educational value from it, though there are more games that are being designed with education in mind (Plass et al., 2015). Because it allows for agency and provides a graceful environment where failure has no external consequences outside of the loss of a game, students can feel more secure in their attempts to learn via a game as opposed to a project, test, or assignment (Plass et al., 2015). Here this security is further enhanced, as the intent of GBL in this context is to activate inquiry. Success or failure in the game itself does not extend to success or failure in the inquiry; in fact, I would argue based upon personal experience with losing at *Catan*, losing the game incites deeper and more motivated inquiry. That is, by losing I have personally wondered how I lost, what factors I could change to succeed in the future, and what concepts of geography from reality I can better understand and apply to win the game using the conceptual connections between real-life and gameplay. If eco-anxiety can come from direct confrontation with the state of the world (Pihkala, 2020), the indirect format of play in a temporary game may reduce eco-anxiety enough to allow for sustained inquiry into the same themes and problems the world is facing.

Catan-swering the Problem

The following is the model of game-based inquiry I am using for my students. I have chosen to focus on *Catan* (Teuber, 2015), though many other games may invite a similar style and depth of inquiry. For the unaware, *Catan*, formerly known as *Settlers of Catan*, is a board game that simulates developing a settlement on a previously uninhabited resource-rich island. The island consists of four main resources arranged in hexagonal tiles; these tiles can be arranged as recommended by the game manual or in any other configuration. Similarly, each tile is ascribed a probability via a number that can be achieved by rolling two six-sided dice; these too are up to the players to arrange. From there, players take turns developing settlements which access the adjacent resources, which in turn allows for further development until one of the players achieves enough criteria to be considered the winner. Throughout, players can cooperate via semi-structured trade negotiations. Elements of statistical probability operate like chance variables and there is also a game token called "the Robber" which acts as a disruption to accessing/retaining resources.

More on the Robber later. Already, the game is primed to align with Bahbani et al.'s (2010) geographical concepts: spatial significance, patterns and trends, interrelationships, and ethical judgements. Still, I prefer a more systematic and intentional approach which is described as the following:

1. I advise spending an hour playing the game slowly with groups of students operating as a team rather than individual players. Per the inquiry process (Manitoba Education and Early Childhood Learning, n.d.), students require baseline knowledge from which to springboard into curiosity and understanding the game is no different.

2. Following that, the next thing I do is change the name of the Robber.

    - The Robber is but one ethical consideration I will challenge outright in front of the students. The concept of a person who, by the recommended set-up of the game, comes from the desert region of the island and only ever acts as a thief and disruption to the colonial process of settling the land is very problematic for its racial and sociological implications. In the game, the "Robber" is meant to be activated by rolling a "7" with the two dice, the most probable number to roll. They steal half the resources of affluent settlers, are moved to a tile that produces resources and prevents settlements adjacent to that resource from harvesting. They also allow the player who unleashes the Robber to personally claim a resource from the opponent. This is still a key facet of the game, but I choose to name the token "Natural Disaster" or "Climate Event." Now, there is a direct connection to the loss of resources, the desolation of potential development, and inability to access resources to the forces of nature and not a nomadic desert-dwelling people group.

3. Once students are familiar with the game, I reset their progress, set up enough *Catan* boards to allow each person to play individually if they wish, and write a guiding question somewhere for each group to see. One question I may ask as students are more and more informed of the climate crises is "How is the game changed if we double the number of Natural Disasters [again, Robber] tokens?" I may also write "How does the factor of probability for the resource tiles

connect with your understanding of sustainability practices in real life?"

- Students do not need to have answers ready, or even fully formed answers after the given play time. These question focal points are used to ground their play in learning and inquiry.

4. For authentic inquiry, the playing of the game is otherwise unimpeded or unaltered. Students receive check-ins from me about the narrative of the events of their specific game. I may ask for some students to take written notes of the interactions between players, how the game board has developed, etc. This is an adaptation for students whose working memory may not be suited for playing and meta-critical thinking at the same time.

    - I will also ensure that the guiding question, whatever it may be, is reiterated often as students play.

5. Now for the inquiry to truly begin. When the game is done or the time to play is up, students can confer with their group about how their experience connects with the provided guiding question. From there, they can generate their own inquiry question and begin working. Their inquiry may have them changing the game of *Catan* to better align with their geographic knowledge, ecological disaster awareness, or research, or it may prompt a divergent curiosity altogether

This is a recursive process that can be done repeatedly with the same students with different resulting inquiries depending on the guiding questions.

Considerations and Conclusions

While this is an exciting prospect that may hook students into meaningful and actionable inquiry in a safely detached and guided experience, there are many considerations that should be confronted before a bandwagon can be hopped upon. *Catan* or any other similar game with geographic themes is a game first; it was not designed to be educational. There may be logical pitfalls, problematic angles, or factual fallacies that should not be paved over just to "make it fit." How I have proposed Catan still allows me to acknowledge that it does not reflect reality enough to be a one-to-one facsimile of our actual interaction with ecology or climate change. Another consideration that must be made is that GBL is not one-size-fits-all. Student, teacher, and school contexts may not allow enough time, resources, comfort, or buy-in to make playing a game a meaningful inquiry. Chee et al. (2014) address the tensions teachers face when trying to make learning

happen outside of their comfort zone, particularly when trying to make playing a game fit their intentions for learning. Marklund and Taylor (2016) quite simply identify how much work can be added to what may already be a demoralizing system by incorporating a game. In a very personal opinion, I would rather teachers avoid experimental pedagogy if they are not invested in making it work for their specific contexts.

Catan itself is not without controversy. Beyond my personal hang-ups about the "Robber" token, Veracini (2013) identifies the blatant settler colonialism mindset within the game. Without careful navigation, playing a game where people can move in, take as much as they like, and treat the land and others in a way that lets some win and others lose sends a very harmful message. And yet, students may be more willing to critically engage with these colonial practices through the game. Teachers who use traditional and popular board games must be on the lookout for the implications and messages that these games may be sending subtextually and be ready to address them as limitations of the experience.

On a more encouraging note, this proposal is not a proposal for Catan or even a concrete solution for eco-anxiety, it is a framework for games as educationally appropriate brain-food. Other games can have similar value in different contexts entirely; if they promote further curiosity and inquiry then the ideal mindset about games in your classroom has been achieved. So long as considerations for gaps, problematic elements, and authentic inquiry have been considered, play on! In terms of environmental education, it is my hope that problem-solving in a game may be a scaffolded entry into addressing our climate's needs such that action does not always have to result in anxiety.

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"What was the most shocking, beautiful, and affirming realization was observing students lose themselves to the land."

-Maclane Cardinal and Xiaoxiao Du

Green New World:
A Climate Change Simulation Board Game

-JOSH BERGMANN

Think globally, act locally. Coined in the early 20th century by a Scottish city planner, these words are still good advice to live by. And, of course, plan lessons by.

Thanks to the hard work of educators across the province, our students have a pretty solid sense of what it means to "act locally". Composting, water audits, and bike programs are creating healthy, sustainable lifestyles in this generation, and that is something to celebrate. But as students move into high school, the ability to "think globally" becomes equally — if not more — important when it comes to understanding the causes and consequences of climate change.

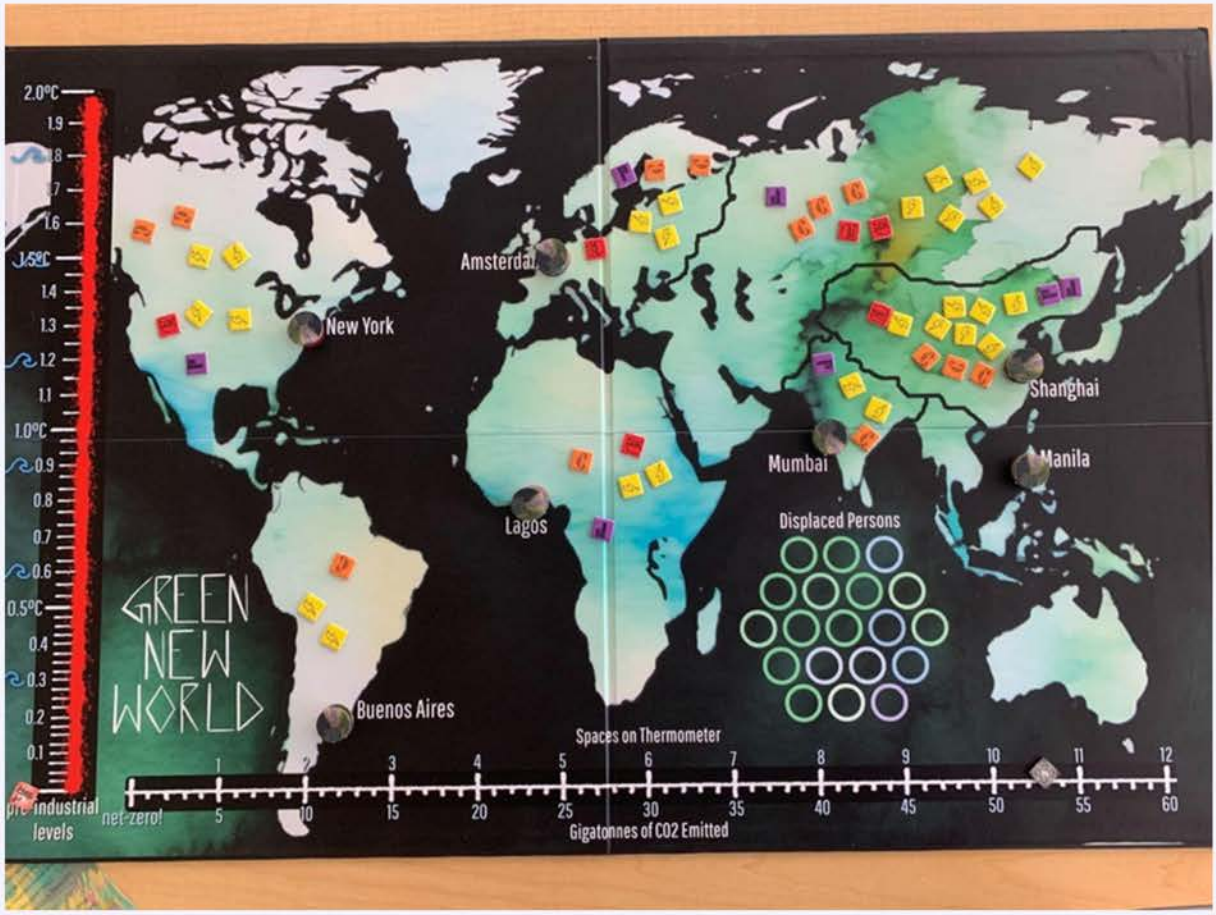
Back in 2019, I tried to address this gap with my Grade 7-8 students by designing a climate change simulation. I was inspired by other class-wide simulation activities, such as MCC's Forced to Flee and Kairos' Blanket Activity which give students an opportunity to see the refugee crisis and colonization, respectively, through the eyes of those most affected by it. In this activity, the "eyes" through which students see the climate crisis are those of the real decision-makers: the politicians and business leaders who are able to pull the levers of power that will save or destroy the inhabitable Earth. I wanted students to know what those levers are, to play around with these options, and decide for themselves what strategies are most effective and feasible for solving the climate crisis. I also wanted them to feel the urgency and the necessity of cooperation, and I think both of those really come through in the game experience.



Figure 1. Green New World is a board game intended for classroom use, meaning 20+ players and very little down-time between turns.

The gist of the game is this: Seven teams, each representing a geographic region, must work together to remove emissions tiles from a world map in the center of the room. Once all the emissions are removed, the class wins. The temperature, however, increases in proportion to the remaining emissions, as do the climate refugees displaced by rising oceans and natural disasters. If either the temperature or the number of climate refugees reach a critical threshold, the game is over and the class loses.

Climate justice also plays an important role in the game. Each region's abilities are limited by the roll of a different-sided dice, depending on that region's wealth. Furthermore, the persistent pressure to find homes for climate refugees presents the students with tough decisions: focus on immediate human needs, or the long-term health of the planet? This helps students experience how the effects and responsibilities of the climate crisis are not evenly distributed.



The board starts with 53 gigatonnes of GHG emissions from 4 major sources: energy, transportation, concrete, and agriculture.

All numbers in the game are taken from ourworldindata.org



Bringing Green New World to the Canadian Museum for Human Rights with some incredible student leaders from AE Wright School.





Teachers from across Manitoba play Green New World at MTS PD Day.

After a few years of student feedback, my principal suggested that I apply for the Seven Oaks Teachers' Association's Member Initiated Project grant. Thanks to SOTA's financial help, I was able to professionally publish 3 copies of the game — now titled Green New World and featuring incredible art by students Mara Buhain and Jo Serrano — and we have since played the game at MTS PD Day, the Seven Oaks Climate Action Forum, and the UNESCO Youth Forum at the Canadian Museum for Human Rights.

On March 7, 2025, we attended the UNESCO Climate Action Forum at the CMHR, but there are more opportunities to engage! Teachers in Seven Oaks School Division can also borrow one of the three original copies from the AE Wright library. There are also two upcoming events where teachers can experience the simulation first-hand and learn how to run it with their own students:

- April 16 at Across the Board game café
- April 17 at Kilter Brewery

Contact greennewworldgames@gmail.com or find @GreenNewWorldGames on Instagram or Bluesky for more information, or to RSVP to our April events.

Learning with and from the Land:

A Reflection on Decolonizing Curriculum to Foster Connections and Wellbeing

-MACLANE CARDINAL AND XIAOXIAO DU

Contemporary youth, year after year, continue to exhibit significant signs of distress, with teachers and parents citing more frequent school counsellor visits, behaviour problems, and dysregulation (Cost et al., 2021). Simultaneously, youth today spend significantly less amount of time outdoors compared to previous generations (Bowers et al., 2021). While correlation does not equal causation, the relationship between unstructured, "risky", outdoor play and youth well-being continues to be an area that demands further exploration (Brussoni, 2015; ParticipACTION, 2024). What practitioners and researchers do know is that outdoor play, and specifically, unstructured (often unsupervised) play is key to healthy child development (Beaulieu & Beno, 2024). This information, however, is not new. Indigenous peoples have always understood that the land is a child's first teacher, and that developing a personal relationship with the land is not only individually important, but key to a healthy society (Simpson, 2014). Modern-day educators and scholars (e.g., Bowra et al., 2021; Kress & Horn-Miller, 2023; Wilson et al., 2019) are only now beginning to uncover what Indigenous peoples have known in their hearts and bodies for centuries: the land is central and inseparable to achieving physical, emotional, mental, and spiritual wellbeing.

Land as Pedagogy and Land as Teacher: Our Views and Positionality

Land is more than a place or a resource but should be viewed and valued broadly in pedagogies and curriculum studies. Leanne Betasamosake Simpson (2014) emphasizes the importance of land and encourages educators and researchers to rethink land and its implications on education. She states that "The land, aki, is both context and process" and emphasizes the active role of learners indicating that "[t]he process of coming to know is learner-led and profoundly spiritual in nature" (p. 7). Indeed, both physically seen learning process and embodied learning process should be acknowledged and embraced in curricula designs. We adopt the concept of land as pedagogy (Simpson, 2014) and firmly believe that Land or "Aki includes all aspects of creation: landforms, elements, plants, animals, spirits, sounds, thoughts, feelings, energies and all of the emergent systems, ecologies and networks that connect these elements" (p. 15).

When we talk about land or learning with and from the land, we consider all those visible and invisible to human senses (e.g., eyes, ears, etc.) like seen, felt, or even felt but not-immediately-described elements. In other words, we acknowledge and value all those on the land in different forms.

Mr. Cardinal is an Indigenous teacher practicing *land as pedagogy* both inside and outside school settings, and Dr. Du is a teacher educator who considers herself as an emerging researcher who values and promotes *land as pedagogy* in educational settings. We are believers, action takers, and curriculum designers of Land as Pedagogy. Simpson (2014) explains that "[b]eing a practitioner of land as pedagogy and learning in [the community] is a process of learning how to be on the land anyway" (p. 19). The question of "how to be on the land" is situated in practices shaped by who we are, where we are, what we can access, what we can do with what we have, what learning experiences we could offer at a particular time. Indeed, learning and teaching is never neutral, but context based. As teachers and educators, we believe that decolonizing education can begin with small shifts and seemingly minor actions, which can still have meaningful impacts on students. However, certain profound impacts cannot and should not be measured by Western methods, such as using tests to gather numeric data. Dr. Alex Wilson argues that "Indigenous land-based education is understood in terms of its deepest and most expansive potential and meaning, it gives context to the knowledges that arise from the land" (UNESCO, 2021, para. 8). We draw upon our shared passion for supporting learners from diverse backgrounds and with varying needs by engaging them in educational experiences that transcend traditional Western methods, such as seated classroom activities and worksheet completion. Embracing the concept of multimodality (Kress, 2017), we incorporate various modes of learning, including tactile, gestural, audio, visual, oral and spatial modes, to enrich student learning experience. By encouraging students to touch, feel, talk, interact with the natural environment in an Indigenous community, students gain deeper connections to the land, further understand their relationship with each other and the land, and learn about Indigenous ways of doing in meaningful and practical ways.

Pedagogical Reflection from Mr. Cardinal

As a public-school teacher, I have sought to find ways across multiple content areas to incorporate land-based learning into my pedagogy and have been astounded at the effects on student behaviour, well-being, and learning. I have also been reminded of the countless opportunities, as well as the numerous barriers that exist in our current system for authentic, Indigenous-led, relationship-building land-based learning.

In the Manitoba Grade 8 Science Curriculum (Manitoba Education and Training, 2000), there is a unit on Water Systems. This seems fitting given the unique relationship that Manitoba has with water, being the central drainage basin for a large portion of the North American continent, water flows through Manitoba from all over North America, and is key to our Identity. Our capital city, Winnipeg, comes from the Anishinaabe and Inninu language and literally means “muddy water”, referring to the ecology of Lake Winnipeg (Sinclair, 2024). Additionally, Hydro is the main source of electricity in this province, sourced from numerous Indigenous communities, primarily in the North. As I began to plan for this unit in my Grade 8 science classroom, it became shocking to me that Indigenous voices were completely omitted, despite numerous outcomes (SLOs) that could deeply be enriched by Indigenous knowledge surrounding the sacredness of water in this place. With this in mind, I reached out the local school at Shoal Lake 40 First Nation, the community that supplies



Winnipeg’s clean, reliable source of drinking water every day. I was fortunate to meet one of the teachers in the community, Andrea Redsky, who quickly partnered with me to plan a trip for my students to learn about the history, strength, and resilience of the Shoal Lake 40 community. The following year, I reached out to Andrea again, this time as a high school teacher teaching a Treaty Relations Class, with a group of students eager to learn more about the role of water in the treaty relationship. Each trip proved to not only be of academic benefit, but of great emotional, social, and behavioural consequence.

The teachings students received and the curricular connections they made were astounding. Grade 8 students partnered with community members to learn about the history of the communities’ fight to get clean drinking water, learned about tobacco offerings as they gathered water samples, and developed a beautiful community art piece. High School students, who travelled in the winter, learned about ice fishing, and worked with community members to find pickerel out on frozen Shoal Lake. Their understanding of the treaty relationship blossomed. However, this is what was anticipated. What was the most shocking, beautiful, and affirming realization was observing students lose themselves to the land. In the unstructured times on both these trips I witnessed kids being kids: Grade 8 students

skipping rocks for the first time and learning how to make a fire. Grade 10 and 11 students finding winter trails through the forest and making forts out of fallen branches.





With minimal cellphone reception, students (re)connected with each other, but more importantly, they connected and built upon their relationship with the land. Anecdotally, I recognized how on both trips, I had zero behaviour problems. Students who were experiencing anxiety or depression at school were enthralled with experiencing a beautiful place surrounded by their peers. The land not only met curricular outcomes but brought students together as a community in a way that no icebreaker or classroom meeting could ever have done, all within the context of Indigenous spirituality and worldview, and under the guidance of Shoal Lake 40 community members. What is also evident is the meaningful intergenerational learning (Trujillo-Torres et al., 2023; Viscogliosi, 2020) between students and community members. Students had opportunities to learn from experienced Indigenous community members on ice fishing, sit in a circle to listen to stories, and engage with nature walks appreciating each other's hidden strength and what nature offers in different seasons. Therefore, endless learning moments have been gained by being on the land with each other.

Final Thoughts

As teachers cope with the impacts of COVID, polarization, and technology reliance, more PD on social-emotional learning is not what is needed. Returning to the land, engaging in unstructured play (even in high school), and fostering independence as students make their own discoveries while on that very land is sure to enhance well-being, resilience, and critical thinking, all while building relationships

between Indigenous communities and newcomers. Oftentimes the solutions to our most challenging problems are frequently not so complicated if teachers leverage existing resources within our communities and ecologies. A welcoming community, beautiful setting, and a little bit of humility and trust can often have the greatest impact - spiritually, mentally, physically, and emotionally.

About the Authors

Maclane Cardinal (B.A., M.Ed.) is a Red River Métis researcher and educator, who is currently a practicing high school teacher at Pembina Trails School Division, where he teaches performing arts and Indigenous Studies. Maclane is also a member of the 2SLGBTQ+ community and uses this positioning to bring about change within school systems, structures, and practices that inadvertently perpetuate harm. Maclane works to center the voices of oppressed students through land and arts-based pedagogies to connect with the natural world and to each other, thereby bringing about sustained societal change.



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Xiaoxiao Du is an Assistant Professor in the Faculty of Education at the University of Manitoba. Her research interests include



language and literacies, multimodal meaning making, culture and diversity, reflective practices, and identity construction. She is a visible female minority who has been working with and supporting culturally and linguistically diverse students and their families in different contexts. She is deeply passionate about learning with and from the Land along with teachers, students, and community members.

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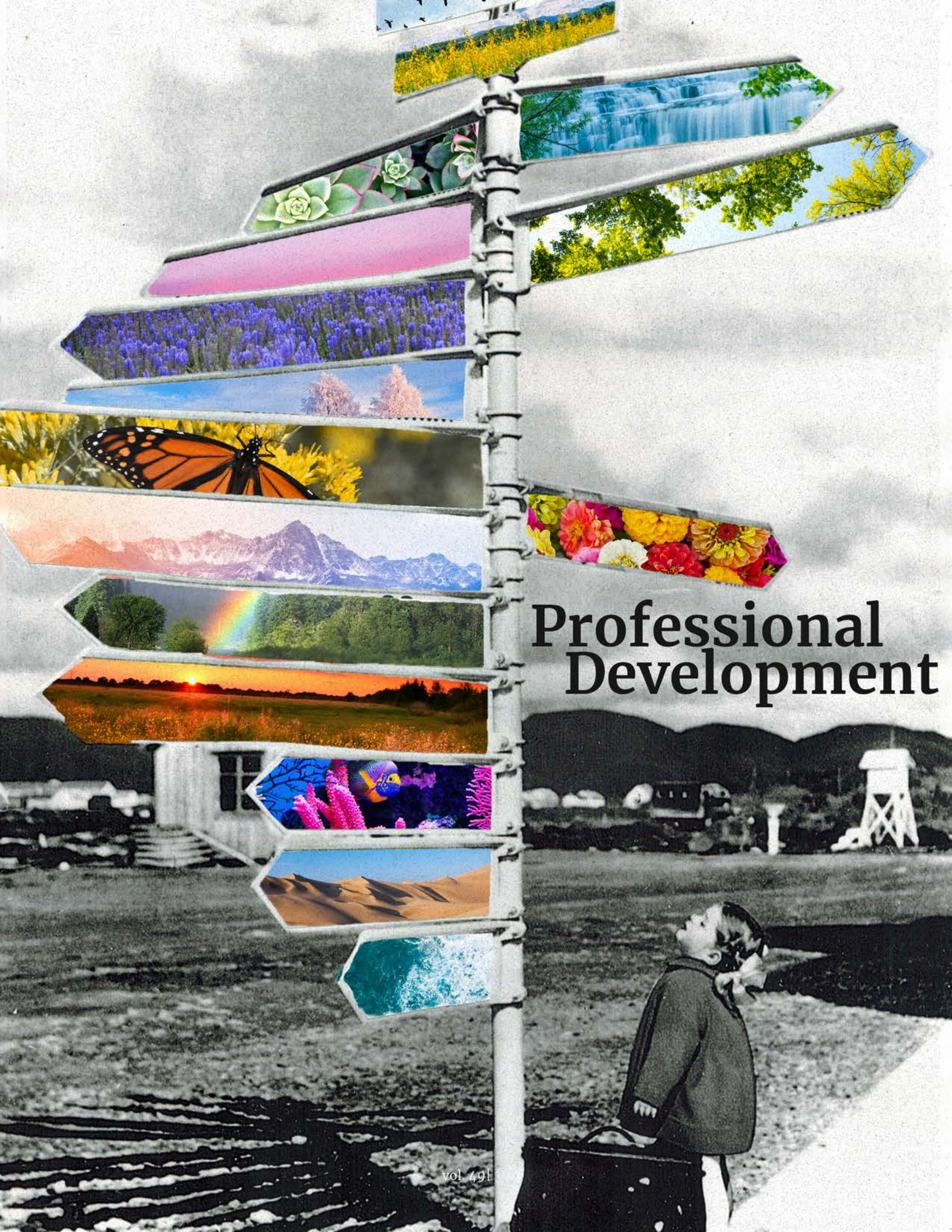

Professional
Development

Accelerating Climate Change Education in the Manitoba K-12 Education System:

Seven Webinars on Climate Change

In fall 2024, a series of seven webinars on climate change education for the Manitoba K-12 education system was held virtually. The series offers pre-service teachers, K-12 teachers, school leaders, and post-secondary teachers an introduction to the context of climate change and the content and pedagogy of effective climate change education.



These recordings are now 'free to access resources' from The University of Winnipeg.

Webinar #1: The Story of Climate Change for People in Canada
Presenters: Christey Allen & Nora Casson (University of Winnipeg, Prairie Climate Centre)

This webinar is an introduction into climate change where we will explain historical records and future projections of climate change using the Climate Atlas of Canada. After identifying the changes expected and how we can find information on a local level, we will then discuss the impacts this will have on people in Canada and why it is important to increase awareness and preparation in anticipation of these events.

Webinar #2: Climate Change Education and the Manitoba K-12 Curriculum
Presenter: Will Burton (University of Winnipeg, Faculty of Education)

This webinar session will define climate change education (CCE) and situate it within the context of the Manitoba curriculum and policy documents. Specific attention will be paid to how CCE is distinguished from education for sustainable development (ESD), and opportunities for integrating CCE into teaching and learning that align with Manitoba curriculum specific learning outcomes.

Webinar #3: Climate Change Education - Growing the Good: Climate Action in K-12 Schools
Presenter: Heather Eckton (Seven Oaks School Division)

This online gathering will unveil the remarkable strides being made within K-12 educational settings to 'grow the good' to cultivate a culture of climate action and empower students as agents of positive environmental change.

Explore the diverse array of initiatives and strategies driving climate action across K-12 schools. From grassroots movements to structured programs, we'll uncover how schools are embracing global competencies for the 17 Sustainable Development Goals and nurturing the growth of a greener future.

Whether you're an educator, student, parent, or community member, this webinar promises to be an enriching and empowering experience. Join us as we explore the power of education in growing the good, fostering climate action, and nurturing an ethos of hope within K-12 schools.



Webinar #4: Climate Change and Climate Justice
Presenters: Christy Allen & Erika Macpherson (University of Winnipeg, Prairie Climate Centre)

This webinar will highlight the importance of diverse perspectives in climate change. Climate change does not affect all people equally, and through climate change planning, we have the responsibility of ensuring that everyone has access to information and resources that decrease climate change risks and increase community resilience.

Webinar #5: Climate Change Education and Children
Presenter: Mike Link (University of Winnipeg, Faculty of Education) | View slide deck

The scale and potential devastation of the climate crisis make it an issue that should be addressed by educators with thoughtfulness and care. In this webinar, we discuss such questions as: What is the impact of the climate crisis on children? How do schools currently perpetuate hegemonic attitudes and values that are at the source of the climate crisis? How might teachers educate for a cultural transformation that values a relational and healing view? With an evolving cultural transformation in mind, what are some practical activities to help children connect with nature in their community? How can educators provide opportunities for children to develop capabilities towards collective action? (Asked within the scope of their lives as children).

Webinar #6: Supporting Youth with Climate/Eco Anxiety
Presenter: Heather Krepski (University of Winnipeg, Faculty of Education)

This webinar explores the relationship between climate change and student well-being. Theories and frameworks for children's well-being offer perspectives on how to support diverse students meaningfully and responsively across contexts. This webinar explores how to identify and address eco-anxiety, climate despair, and climate grief. Strategies to create opportunities for K-12 students to adapt, feel hopeful, and take action in light of climate change will be addressed.

Webinar #7: Climate Justice: Environmental Racism and Critical Climate Literacy
Presenter: Latika Raisinghani (University of Winnipeg, Faculty of Education)

This webinar explores climate justice and the need for addressing environmental racism by cultivating critical climate and scientific literacy among all. By sharing various frameworks and principles that may inform human-nature interrelationships, the webinar will invite you to (re)imagine possibilities for just interactions by interrogating: How and in what ways human-induced rapid climate change is disproportionally affecting vulnerable populations? How might climate literacy help in addressing environmental racism? How might we invite critical eco-justice-oriented conversations that may inform cultural and environmental concerns of marginalized peoples? What opportunities does Manitoba curricula offer to invite such conversations?

Contact Will Burton (w.burton@winnipeg.ca) for more details!

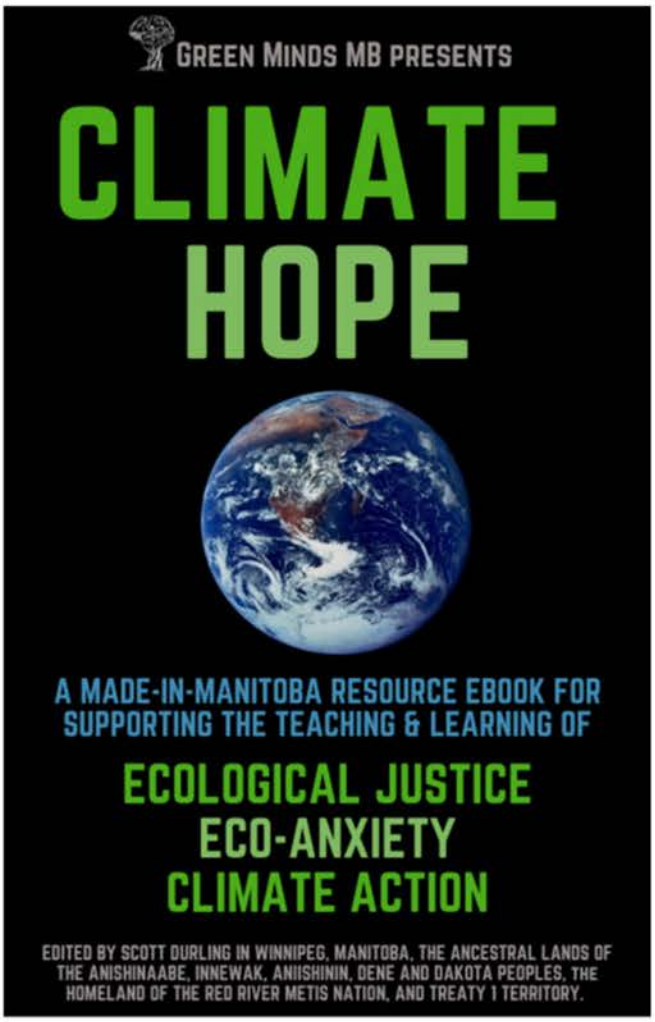
Climate Hope:

A Made-In Manitoba Resource eBook for Supporting the Teaching and Learning of Ecological Justice, Eco Anxiety, and Climate Action

There are many feelings and barriers to the work of teaching for ecological justice, eco-anxiety, and climate action - Where do I start? How do I connect or integrate into curricula? How do I not feel overwhelmed, sad, or hopeless? How do I support students from feeling overwhelmed, sad, or hopeless? How do I support students from feeling overwhelmed, sad, or hopeless? How do I fit this into my current practice?

The *Climate Hope* resource ebook and *Green Minds* curriculum is here to support you with these questions and feelings. The most important part of this work is simply the intention of wanting to do more about ecological justice, eco-anxiety, and climate action - intention is where the work starts!

Excerpt from *Climate Hope: A Made-In Manitoba Resource Ebook for Supporting the Teaching and Learning of Ecological Justice, Eco Anxiety, and Climate Action.*



Check out the full, free ebook here.



Green Kids Inc.

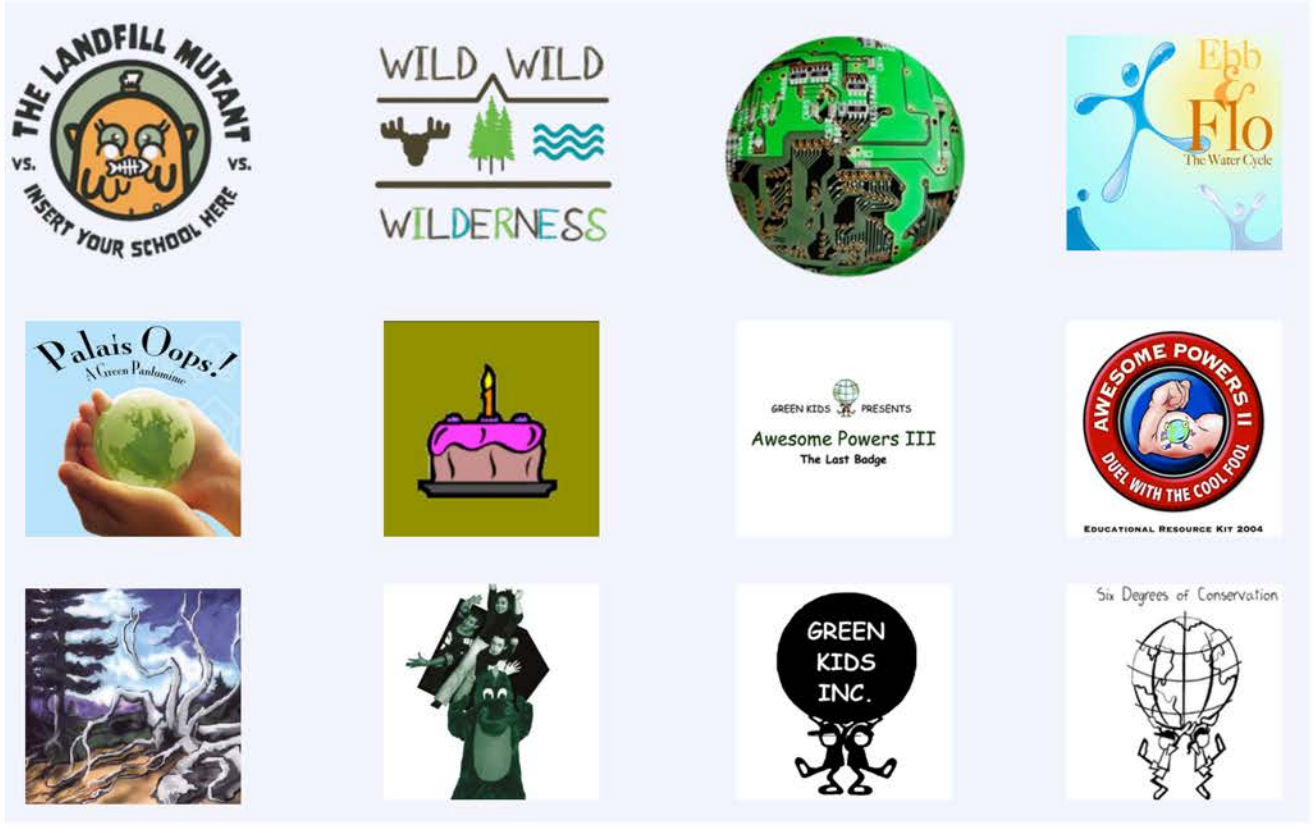


Green Kids Inc. is a non-profit, live theatre group, and the first charity in Canada dedicated soley to environmental education for young people through performance. Established in 1991 to address the need for entertaining, educational programming for school aged children, Green Kids Inc. focuses on environmental stewardship.

Their programming is informative, realistic, and optimistic. They showcase proactive behaviour and avoid placing blame, emphasizing community spirit and individual action, with the message being that every little bit of help is an invaluable contribution.

Check out their study guides that accompany each production, allowing educators to delve deeper into the material presented in the play.

Contact daina@greenkids.com for more information!



MANITOBA EDUCATION AND EARLY CHILDHOOD

Learning Resources

Manitoba Education and Early Childhood Learning has several online resources that are accessible to K-12 educators and students at school and at home through the Online Resources for Manitoba Educators (ORME) website: https://mbcsc.edu.gov.mb.ca/onlineresources

There are two research resources:

- Britannica Online K-12 school edition (includes ImageQuest & Science LaunchPacks)
- Gale in Context: Canada (a middle / high school resource)

There are also four video streaming platforms:

- NFB Education (National Film Board of Canada)
- CBC Curio
- CAN-Core K-12 school edition
- Criterion-on-Demand

These resources offer Manitoba K-12 curriculum-relevant articles, videos, images, audio clips, primary sources and more, with an emphasis on Canadian content and Indigenous themes. They provide educators with a variety of ways to engage students on the topic of climate action and other social science themes.

With various accessibility features and language options, content can be tailored to each student's unique learning needs and provides a safe option for students accessing online content while improving literacy, research and digital citizenship skills.

Support materials including tutorials, user guides and resource catalogues are available on the site.

French language content is available, and many of the resources have the option to search a dedicated French language site. For more French language resources, please access www.dref.mb.ca

All inquiries regarding the Online Resources for Manitoba Educators can be sent to ORMEinfo@gov.mb.ca



Call for Submissions

MB Speaks

FALL 2025 ISSUE

vol. 49 | 45

Call for Submissions

FALL 2025 ISSUE

MB Speaks

You are invited to submit to the Fall 2025 Issue of the Manitoba Social Science Teachers' Association (MSSTA) Journal:

Democracy Depends on It: Social Sciences Education

"In the end, the question is whether social studies education will promote citizenship that is adaptive to the status quo and interests of the socially powerful or whether it will promote a transformative citizenship that aims to reconstruct society in more equitable and socially just ways. Social studies teachers are positioned to provide the answer."

--Ross, 2024

The fall 2025 professional development day and journal are both dedicated to the theme of citizenship and democracy. In the current context, due to political, economic, environmental, technological, and social changes, notions of citizenship and democracy have been challenged and changed. These factors are impacting our understanding of citizenship, in particular our ideas of what it means to be a "good" citizen as we face these challenges. At this moment, we are also witnessing attacks on citizenship and democracy. It is for these reasons that we have dedicated this issue to the exploration of citizenship and democracy in social studies education.

As citizenship education is a core concept in the provincial social studies curriculum, we want to hear how teachers are exploring this concept in their classrooms. That is, we want to hear how social studies educators are challenging attacks on citizenship and democracy, inviting complex discussions about these concepts, and enacting democratic practices in their own classrooms. We recognize that many teachers may be grappling with the weight of the current context, and we hope this issue also offers space for educators to share their uncertainties and insecurities about how to pedagogically respond.

Call for Submissions *FALL 2025 ISSUE*

MB Speaks

Submissions can engage the following themes:

- explorations of citizenship education in social studies
- changing ideas of citizenship/good citizenship
- attacks or threats to citizenship and democracy in the current context and their implications for social studies education
- dialogue and deliberation as essential to explorations of citizenship and democracy education
- classrooms practices that model, encourage, and enact active citizenship
- the emotional toll of teaching about citizenship and democracy while experiencing attacks on both

Interested authors can submit to any section of the journal:

1. Pedagogy: scholarly writing connected to the issue theme. Writers should aim for 5-7 double-spaced pages.
2. Practice: class activities, lessons and/or unit plans.
3. Professional Development: events, organizations, learning resources, books, podcasts, or book/podcast/resource reviews.
4. Photos: If you have any photographs of Manitoba that you would like featured in the issue, we would love to include them.

The journal team will evaluate your submission on the following criteria:

1. Relevance to the journal call (as outlined above)
2. Suitability for our target audience: Social studies teachers in Manitoba
3. Written structure: Writing is of publishable quality

Submissions should be sent to msstajournal@gmail.com no later than **July 15th, 2025**. We hope to publish this issue in time for the October PD in 2025. Please send your submissions as word documents. For immediate response to any journal inquiries, please reach out to shannon.moore@umanitoba.ca

If you are interested in advertising in our journal, please contact us directly; we are in the process of developing protocols and policies around advertising.

VOLUME 49 • NO. 2 • SPRING 2025

MB Speaks

VOICE OF THE MANITOBA SOCIAL SCIENCE TEACHERS' ASSOCIATION