



Designing Climate Resilience: Youth In Action



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Land Acknowledgement

This research project, Youth Designing Climate Resilience, has taken place on the unceded territories of the Lekwungen, Musqueam, Sinixt, Hul'q'umi'num, K'omoks, Lil' wat and Musqueam, Squamish and Tsleil-Waututh peoples. We are grateful, as uninvited settlers, to have the opportunity to walk, learn, work and live in these places and while doing so, to honour the legacies of Indigenous stewardship and the lives of Indigenous people before, as well as honouring the presence and ongoing stewardship of those that live on these lands and waters today and tomorrow.

As non-indigenous researchers, we have constructed the process/path of this project using the best of what we know and doing the work in a good way. We hope that our genuine and deep respect for and honouring indigenous ways of learning and knowing are evident throughout.



Foreword

The impacts of climate change are increasingly evident across Canada and around the world, with more frequent extreme weather events, wildfires, and coastal erosion, among other challenges. The urgency to reduce greenhouse gas emissions and to build the capacity of communities to adapt to these changes has never been greater. At the forefront of these efforts are young people who, despite the daunting realities of climate change, are choosing to engage, innovate, and lead. Their resilience and creativity are inspiring, as evidenced in the work outlined in this book which has been created in order to share the story of the Youth Designing Climate Resilience research project (YDCR), initiated by the Resilience by Design Lab at Royal Roads University, funded by the Social Sciences and Humanities Research Council of Canada and co-facilitated by RbD research associates, Irene Corman and Austin Lang.

This book outlines the process undertaken in the YDCR project and showcases the climate resilience initiatives designed and led by participating youth and educators in Southern British Columbia, Canada. These stories highlight the transformative potential of empowering youth and their communities as leaders of climate resilience and adaptation. Through participatory projects, authentic learning experiences, and social innovation, the youth and educators featured in this project are redefining what climate action looks like. Their efforts offer valuable lessons in youth engagement, transformative education, and community empowerment.

I am proud to introduce this guidebook as a testament to their vision, courage, and leadership. May their stories and strategies inspire others to take action and contribute to a more resilient future.

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Director Resilience by Design Lab
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Front Matter:

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A Student's Perspective

Below is the story of one student's engagement with the YDCR project. Joel's story gives voice to the experience of youth committed to making a difference in the world, but who may encounter many barriers to getting engaged or feeling like they have an impact.

His story foregrounds the reality that for many of the participating youth, the YDCR project was not the start of their climate activism. This project built on participants' ongoing climate work, offering them new tools, connections, and contributing to their sense of efficacy as climate action leaders. Participating youth came to the project through different avenues, and for different reasons, but all the youth expressed and demonstrated a commitment to making a difference in their communities and their countries to find ways to address climate change and its impacts on their lives and futures.

Before joining YDCR

In my opinion, youth are paramount to enacting meaningful, generational change.

I started my advocacy on the federal level. With a looming election ahead, I contacted every major Canadian political party, demanding immediate action. I wanted to know that my voice was heard, consuming much environmentally related media to inform myself as a climate-conscious citizen. I was demanding, insistent, and yet naive, in my lecture, expecting everyone to agree with my righteous argument. Unsurprisingly, it got me nowhere, my forceful tone weakened my voice. It was an important lesson in my political evolution, I learned that I must remain calm and start on a smaller, local scale.

Fairy Creek and Wet'suwet'en catalyzed my shift in focus to provincial politics. In my eyes, it looked very much like the government was destroying what it vowed to protect.

Our government promoted a climate change agenda, championing a greener, cleaner B.C. for its residents, all while a dire ecological situation was unfolding. It seemed clear to me that our province lacked consistency in preserving old-growth forests which are crucial to sustaining our environment. These forests play a central role in the battle against climate change, as deforestation leads to the release of a staggering amount of carbon emissions and the disruption of our diverse ecosystems. To me, this act of clearing old growth forests, if allowed, would unequivocally destroy our ambitious climate goals, thereby exacerbating the challenges that face our embattled climate.

It was the summer of 2021, and the new school year was fast approaching. I needed guidance. I longed for environmental justice. The never-ending apocalyptic news reports consumed me, a forecast of the impending disaster that will be thrust upon my generation. The unrelenting severe wildfires burning throughout B.C. devastating many local communities was a dire warning sign of what was to come. Yet, it seemed the actions taken by our government did not meet the urgency. I was beyond disheartened that our vital forests were being threatened, so, I reached out to the B.C Green Party, who I believed had a strong climate agenda.



My letter yielded an immediate response, reigniting my diminishing hope for change. Not only were my concerns validated in an email by Green Party leader, Sonia Furstenau, but I was invited by her to spend a day at the legislature in Victoria on October 20, 2021. I was beyond excited.

September 30, 2021, marked the first official Truth and Reconciliation Day, an important milestone for Indigenous rights in the province. Concurrently, the situations in Fairy Creek and the Wet'suwet'en territory were growing progressively alarming. It fused environmental issues with Indigenous rights. I wrote to the premier, the relevant ministers, and my local MLA. Since I was more articulate and specific with my words this time about a singular provincial issue, I was feeling more confident that I would receive a personalized response.


Not only did my letter yield a reply from my MLA, but I was offered the opportunity to discuss the situation via Zoom. I had mixed emotions; happy that I received a reply, yet worried about my upcoming meeting. In the days leading up to the online meeting, I doubted myself. I questioned whether I, as a 14-year-old, could properly convey my views, let alone enact meaningful change. What do I say? How do I say it? I prepared for hours, gathering my thoughts and taking detailed notes.

Fast-forward two weeks later, and I logged onto the meeting. To say I was nervous was an understatement. All my notes were laid out in front of me, but my mind was scattered. My M.L.A was very friendly and well-versed on current issues. All in all, I was very grateful for the face-to-face meeting. It was certainly a highlight that my letter garnered this kind of attention. I was appreciative of the time my MLA made to explain our government's current climate action plan. Having said that though, I failed to raise any of my previously meticulously prepared talking points. My insecurities got the best of me.

Finally, it was October 20, 2021, and I was at the legislature. I shadowed Sonia Furstenau for the day, delving into relevant topics that threaten our province's collective future.

At the capital, I met other BC lawmakers across party lines, attaining valuable insight into the complex political dynamics in the Legislative Assembly, especially related to environmental legislation. It was a testament to how one letter can make an impact. That there is power in words, regardless of age.





// I struggled to locate a unified cohort of like-minded peers to connect with to continue my climate advocacy. //

As they say though, all good things must come to an end. As inspiring as my legislature visit was in so many ways, I now found myself back to reality, all alone, navigating a new school year while juggling all my studies and sports. I struggled to locate a unified cohort of like-minded peers to connect with to continue my climate advocacy.

Finding a more productive way

In the spring of 2023, the latter half of my grade 10 year, I was presented with a unique opportunity to become involved in an ongoing youth climate project. This was called Youth Designing Climate Resilience, or 'YDCR.' My parents, understanding my desire to connect with similarly impassioned youth, approached me with this initiative. I was invited to attend a meeting over Zoom, called a 'Wisdom Circle.' I reached out to Austin and Irene, the leaders of YDCR, affirming my profound interest in joining this fascinating, and in my eyes, much-needed project. I reevaluated my personal contributions towards driving a climate revolution, reckoning with my long isolation from similar youth. Approaching the meeting, I felt a newfound fear. I worried that my prior contributions and knowledge would be inferior to a connected base of climate activists. I came home from school at lunch to attend the 'Wisdom Circle' via Zoom. This would be the first time I connected with other youth climate activists. Following a welcoming introduction, I was invited to speak about my past activism.

The faces of multiple students served as a vital reminder to me that an individual is a part of a larger, collective effort. At that moment, I spoke with confidence, detailing my past climate advocacy that yielded an invitation to the BC Legislature.

Then, I absorbed the insightful analysis of our present climate shared by students and educators from Puerto Rico and British Columbia. The contrast was fascinating, symbolic of a global youth-driven consensus. There was a common drive that empowered the attendees, the very real, already forming, threat of climate change.

I posed a question to my Puerto Rican counterparts: "Has climate change already affected your quality of life and surroundings?" An educator on the southwestern part of the island painted a picture of the devastation of increasingly volatile hurricanes that lead to destruction. In her local town, they see evidence of climate change on the beaches, the immense coastal erosion, a long-predicted consequence of a changing climate. In San Juan, the capital of PR, the local news was coincidentally discussing the regional effects of climate change that day. At the end of the decade, experts warn their airport runways will be flooded with water, as they are just above sea level, and will require immediate mitigation efforts.

National Puerto Rican food insecurity intensified in the wake of Hurricane Maria and underscored the critical need for a reliable food supply. The educators recalled instructing their students on the interconnection of politics and the environment, demonstrating the

inseparable link between colonialism and financial interests in shaping a sustainable climate response in the American territory. My personal view of a youth driven climate approach had been transformed. The drive to transform our environment is not limited by region, climate, socio-economic status, or school.

As a Puerto Rican teacher said, their goal is "to get one step further" to enact meaningful change, considering the means and resources available to them. That is exactly what makes this project so unique. The youth involved span all societal lines, with every participating school able to properly raise awareness and institute differing initiatives. We are diverse but bonded by our shared goal, enabling us to empower one another across the province, whether in remote BC or Victoria, to build a better tomorrow. As an individual, I felt united with my newfound peers, and a new sense of confidence emerged.



Towards the end

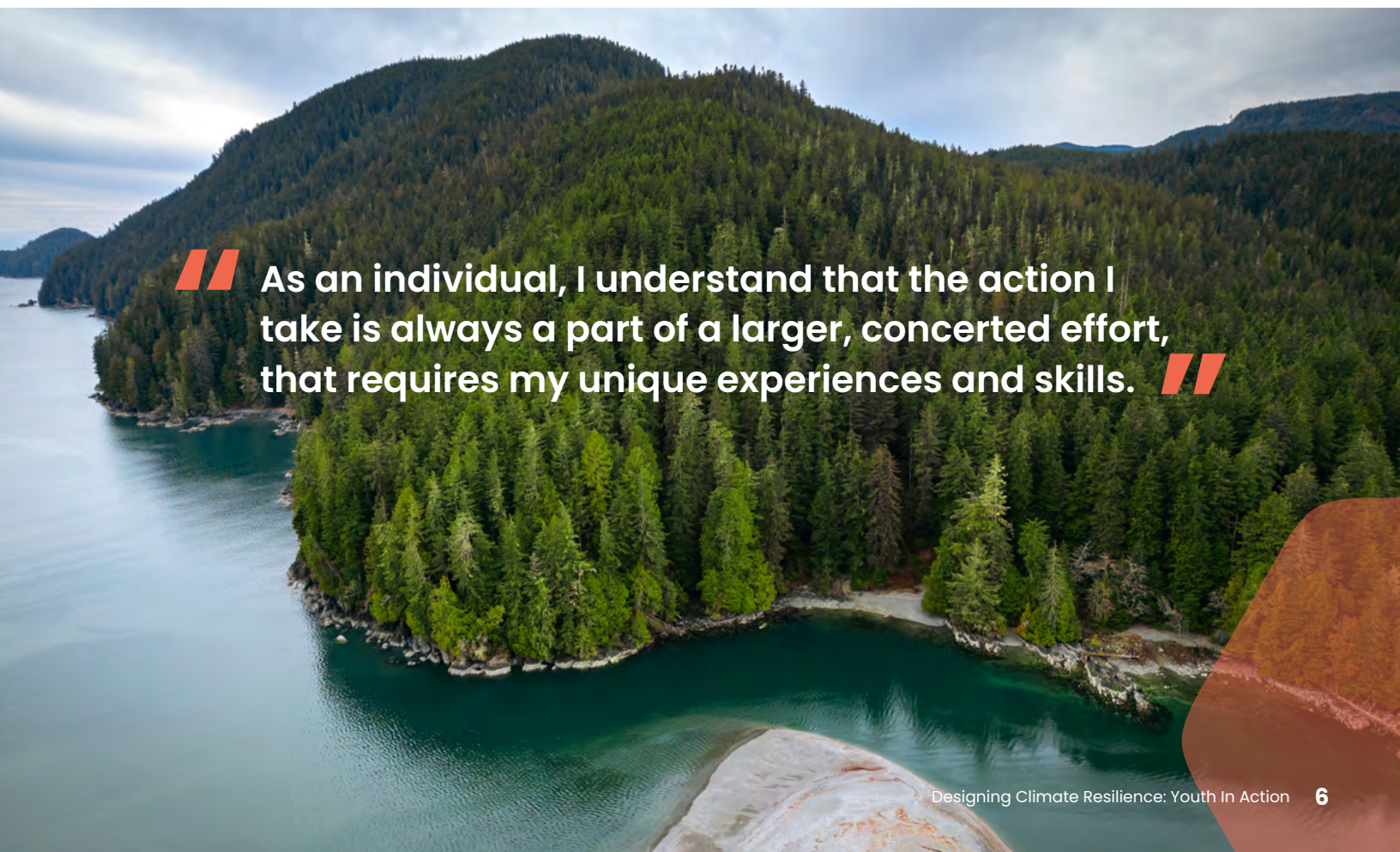
It was the day of the final meeting, a celebration of all that had been accomplished during this project. I was approached by Austin to introduce Sonia Furstenau, a special guest, in this final wrap-up. I spoke confidently about my personal experiences with the B.C. Green Party leader in front of my climate-conscious peers. Sonia spoke of her political rise, from local environmental initiatives to legislator. She became a strong climate voice in the provincial assembly.

There was another guest as well, esteemed scientist, Elin Kelsey. She conveyed a message filled with hope. In her speech, grounded in evidence, she unpacked the often-depressing media and contrasted it with the remarkable environmental progress already enacted, in part from empowered youth. This served as a perfect conclusion, accurately embodying the authentic purpose of the youth 'think tank.' It empowers the next generation by integrating both political and scientific perspectives to drive meaningful change.

My attitude was transformed by this project. I gained a fresh perspective on the battle against climate change, realizing that as an individual, I have the power to institute enduring change, no matter how small.

I have applied this newfound philosophy to multiple civic issues, lifting my voice permanently. As an individual, I understand that the action I take is always a part of a larger, concerted effort, that requires my unique experiences and skills. This project has recast my perception of our environmental future to one of hope rather than disaster. Now, when I engage with media focused on the environment, I feel inspired to continue to elevate my voice. My urgency to act remains, strengthened by my bond with the other YDCR participants.

– Joel Sagar



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Youth Designing Climate Resilience (YDCR)

The Project Story

The Youth Designing Climate Resilience (YDCR) project, funded by a Social Science and Humanities Council Research Grant, included working on two parallel projects with youth, educators, and researchers with one team in British Columbia, Canada (BC), and another in Puerto Rico (PR).

This report details the BC project, offering insights into lessons learned about one approach to climate education and research, and providing reflections on the process and the outcomes. The partnership and collaboration that occurred between BC and PR was a mutually enriching learning experience for both teams.

The goals of the project are implied in the foreword written by Joel Sagar, one of the BC youth who was involved in the project. The Youth Designing Climate Resilience project (YDCR) was designed to engage youth in dialogue and action focused on resilience in the face of climate change.

The goal was to better understand the ways in which youth and educators can work together to take action on climate, and in so doing, help youth in particular develop or enhance their sense of efficacy and empowerment as climate action leaders.

Activities to support this goal included virtual opportunities for learning, discussion and collaboration, and on the ground, local and youth designed and implemented climate action projects in their local communities.

Documentation of the BC YDCR project included Zoom recording of meetings involving researchers, educators (Grounding Sessions) and researchers, educators, and youth (Wisdom Circles), short semi-structured interviews with educators, and the generation of a short documentary film documenting some of the

youths' reflections and projects. In carrying out these activities, we collectively worked to understand whether in fact, the youth who were involved in the project felt a stronger sense of self-efficacy and empowerment as climate action leaders as a result of their participation. In addition, we wanted to pilot and evaluate an approach to working with students and educators that might have the potential to enhance the uptake of climate change education in the K-12 system.

This project narrative describes what the BC YDCR project did, and how it did it. It is offered as an example of how to work with young people and educators using design thinking, an iterative, empathy-based, collaborative problem solving approach to complex problems.

Design thinking (DT) is rooted in creative and critical thinking and reflection, a belief in the power of diversity, collaboration, and non-hierarchical ways of working, and a willingness to take risks.

Prototyping, or testing an idea in the real world, is at the heart of DT. It promotes informed and evidence-based risk taking, and the willingness to fail and modify iteratively. DT was used in this project to explore and take action at the local level on youth-identified issues relevant to them and to climate change and the nature-positive movement, a movement which seeks to halt and reverse the loss of natural ecosystems and help ecosystems recover by 2050.

Early Days

The project began with a proposal for funding from the Social Science and Humanities Research Council of Canada generated by a multi-disciplinary and diverse team of researchers and educators from BC and PR. This team included those with deep expertise and experience working with youth as researchers and educators all of whom shared a commitment to using creative and empowering approaches within education. Several members of the core team had experience working with DT as a methodology aimed at creative problem-solving and the generation of new knowledge. DT was fundamental in the conceptualization of the YDCR project, and throughout the two years of the project both as a process for the core team as they co-designed the project with participants, and as a valuable tool for informing the way youth and educators might work together to explore and address real-world issues and concerns, and in the process learn about themselves, the world, and what is possible. As a generative collaborative process, DT guided our shared thinking, acting, reflecting, and recalibrations as we moved forward and learned what worked, what didn't, and what alternatives might be useful. Without the integration of DT as a core foundation for the project, the work we undertook in both countries would have been very different.

We agreed that a design thinking approach would be particularly useful in the YDCR research project both because the process and concepts are already part of the curriculum, and because it offered a way for the core research team to engage in a process that would parallel in many ways the process that youth and educators would or could use once engaged. It also offered a structured way to learn from and with youth and educators committed to taking action on climate change.

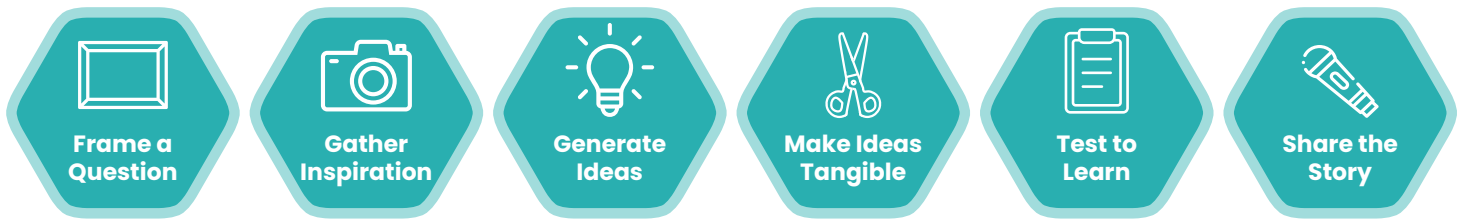
The inclusive and creative dimensions of the DT process, we believed, would support building a greater sense of efficacy and empowerment with both educators and students as leaders in the space of climate change education and action, while also hopefully producing some innovative and localized responses to climate change.

Before we go on to talk about our process and the project itself, it is helpful to understand more of the general shape of DT as a process. Although there is no single approach to DT, most DT approaches share some common steps or phases as can be seen in the following.

1. The Stanford Institute of Design's (n.d.; IDEO) description of DT is perhaps one of the best known. It describes DT as "a process for creative problem solving that centers on the needs of people. It starts with what is desirable from a human point of view, along with what is technologically feasible and economically viable." They describe a six phase, iterative and adaptive process that is cyclical and non-linear, such that the process itself can involve returning to previous phases as new questions and/or new information arises. DT begins with the framing of a generative question about an issue of shared concern, a question that is capable of surfacing underlying issues and concerns and potential opportunities for solving or addressing the problem. With a good question in place, participants then engage in a process often described as the Empathy phase, or in IDEO's version, Gathering Inspiration. This phase focuses on gathering information and inspiration from each other and from others who are invested in the outcome. With the information gathered, DT participants engage in a variety of brainstorming strategies designed to encourage divergent thinking and generate ideas. This is followed by a process of making these idea(s) tangible and then testing these prototypes to learn about what works and what doesn't. In the diagram below this is followed by mobilizing knowledge of the project and especially the prototyped idea (i.e., Share the Story).



This looks very linear in the diagram, however, as described above, the prototyping or testing phase often results in a return to any one of the prior phases including refining the question, or gathering more information of tweaking the prototype.



(IDEO U (n.d.). The Design Thinking Process.) <https://www.ideo.com/pages/design-thinking>

2. The University of Washington’s Global Innovation and Design Lab defines design thinking as a creative approach to innovation that prioritizes human experiences. They describe it as an approach to problem exploration that encourages better questioning, helps to unpack and redefine problems in order to get at root causes and issues, and contributes to increased agility in generating actions and options in response to complex problems. Their definition emphasizes the value of the process of design thinking for deepening and fostering collaboration, learning from failure, and “embracing ambiguity” all of which attributes are germane to working with complex issues like climate change.

(Design thinking globally: Global innovation and design lab. University of Washington Tacoma. (n.d.). <https://www.tacoma.uw.edu/innovation/design-thinking-globally>)

3. The Resilience by Design Lab at Royal Roads University elaborated an approach to design thinking with youth that similarly focuses on the development of creative, critical, and innovative thought to support resilience and engagement on complex problems. The Resilience Social Innovation Process (R-SIL; Cox et al., 2019) was developed as part of the Alberta Resilient Communities Project, a project that explored the disaster-experiences of communities, children, and youth affected by devastating flooding in Southern Alberta in 2013. R-SIL adopts similar process steps to those articulated in the Stanford diagram, but uses different terminology to describe these phases: Explore, Connect, Reflect, Create, Test, and Seed. The R-SIL process, which was designed specifically for working with youth, also emphasizes an education and empowerment orientation that engage youth in a DT thinking process that incorporates hands-on opportunities to learn and practice skills related to participatory research and analysis, creative and arts-based research methods (e.g., digital storytelling), creative problem solving, group facilitation, and community engagement. (<https://resiliencebydesign.com/resources/guides-tools/>)

These are just some of the approaches to DT which is a component of the required curriculum in K-12 in BC. (for more on this see Taking Making Into the Classroom <https://mytrainingbc.ca/maker/index.html>.)



Stage 1: YDCR Proposal

From the start, the core team agreed that three foundational principles would guide the design of the research: Drawing on the creative power of DT; engaging students and educators in place-based learning; and weaving in a reconciliation and decolonizing orientation that recognizes the value and importance of Indigenous knowledges and ways of being both generally and especially to climate action. We adopted these principles not only as elements of the project itself, but also as elements of how we as a core team would work together.

In these early stages of writing the proposal we were already engaged in our DT process, learning from each other, bringing in multiple ideas and perspectives, and working to design a project that would serve as a possible prototype for bringing climate action and DT alive in the K-12 educational curriculum.

As a group of researchers and educators coming from very different contexts and cultures we began exploring how we might design an applied and participatory research project that would, at its core, embody and cultivate the core principles we had agreed upon.

This approach to the process we undertook sustained throughout. In our encouragement of and facilitation of DT for the projects undertaken by youth, we were, simultaneously, using DT in the actual design of the project. We did not have the end in mind so much as continually being reflective and responsive to what was emerging, with a watermark, in a sense of DT, in the way we were conducting the planning

Given our shared understanding that youth empowerment plays or should play a central part in climate action and climate-resilience, we knew that we wanted to conduct a research project that would have at its heart, learning through collaborative action.

We also knew that whatever we proposed would need to be responsive to two very different cultural, geographical, political, and economic environments, not to mention the different “places” and contexts of each project in BC. In other words, the design would need to be flexible to adapt to difference, but also be enriched by that very difference. We also knew that the YDCR project design would need to be responsive to the very nature of working with youth and educators, all of whom are typically already over-committed, over-extended, and having to focus on required curriculum within diverse learning environments. This meant that whatever we proposed would need to build on, integrate within, or enhance existing work happening within classrooms and student clubs and extracurricular activities rather than adding in new work.

Covid-19

By the time we received the funding we, like everyone around the world, were in the midst of the COVID-19 pandemic. So, when we started to conceptualize how this research project would actually happen (moving from the get the funding orientation, to a spend the money wisely orientation), we recognized that we would face some significant challenges trying to bring to life the work we had proposed. The impacts of the COVID-19 Pandemic, which began in early 2020, were still being experienced throughout the world and these impacts were particularly hard on schools and those working and learning in them. Making it that much harder in PR, that country and the education systems within it, were still recovering from the devastating impacts of the 2017 Hurricane Maria, and grappling with an underfunded and at times politically fraught system.

A core element of the proposed YDCR projects was to involve students and educators in the K-12 education systems in their respective countries in working with DT to ideate and enact climate action projects in their schools and/or communities.. In BC, face to face interactions were no longer taken for granted and so we decided that connections and contact would need to be built virtually in the online environment. Although we realized this would limit the type of interactions that would occur, it was determined to be the most realistic approach given the ongoing COVID related disruptions to education systems and the emotional and physical impacts of the pandemic.

Although this shift was in some ways disappointing, it also opened up new possibilities as it allowed us to involve students and educators not only from Victoria (the base for the Resilience By Design lab), but from around the Province of BC. Given the place-based focus of the project, and the goal of contributing to the empowerment and efficacy of students (and educators) as climate action leaders, opening up the geographic reach of the project was a great advantage.

We would be drawing on and contributing to experiences in different locales or “places” including the unceded territories belonging to the more than 200 distinct First Nations whose land is in what we now know as British Columbia.



Stage 2: YDCR Recruitment

Recruiting students directly for a project such as this is next to impossible in school systems which quite rightly protect students’ and educators’ time and safety. So, to start the project we needed to identify potential educators who might be interested in engaging with their students, either as part of their classroom activities or as part of the student clubs they sponsored that had a project-based learning focus on climate and nature. One of the core research team, a former K-12 educator with provincial contacts and relationships built over time, generated a list of educators who might become involved with the project. She personally contacted these individuals, told them of the project’s goals and orientations, and invited them to participate.

The fact that these reach-outs were based on pre-established relationships was instrumental to the success of this process.

The Resilience By Design lab, whose work has included a number of other youth-focused projects, had had less successful experiences previously trying to collaborate and build partnerships with educators from the K-12 sector in part because educator and student workloads and curriculum priorities make adding in new work, new projects, extremely challenging.

Despite their potential value, new projects and new research initiatives mean more work for educators and in many if not most instances, there is little to no capacity for them to take this on. In the case of the BC-YDCR project, it was clear that those existing relationships, both personal and professional, were instrumental in beginning and continuing the project work in a good way. The already established sense of trust provided a bridge to the project and the project team, and continued to facilitate meaningful participation and partnership with educators throughout the project. This was critical given that the educators were conduits to the students who participated and because we envisioned the project as a collaboration between the core team, educators, and students. We wanted, as much as possible, to co-design the project moving forward.

Stage 3: Planning the YDCR Process

In the first year of the project, 2021, 6 educators from Vancouver, Victoria, the Cowichan Valley, Salt Spring Island, and the Whistler area joined an initial planning session to explore how best to proceed during the school year. These educators were instrumental in this early design process and their perspectives, expertise and sage advice ensured that the logistics implemented made that first year one of close collaboration despite virtual contact.

The exchanges during that year developed camaraderie, learning and rich possibilities for reflection and recalibration, two critical elements of our DT process.

The next school year, 2022 saw some changes: participating students graduated and moved on, educators changed roles and/or districts, two new school districts/pods became involved, and another new pod was formed with students and educators from an independent school on Vancouver Island. One of the original participating schools decided to move ahead on their own with climate resilience projects as they were ready to begin before the project was ready to begin. These changes resulted in the second year of the project including participants from Victoria, Vancouver, Richmond, Comox Valley, a small city in Southeastern BC, and an even smaller Indigenous community in the Whistler/Pemberton area.

Project Infrastructure AND Guiding Practices

In the very first planning session with educators we decided on including three key elements of the research, providing in essence, the initial “infrastructure” for the project:

1 The first element concerned the development and naming of project pods. It was agreed that these pods would consist of a small group of young people (elementary to high school) who were supported by one or more educators whose role was to help the students originate, design, and execute community-based climate action initiatives.

2 The second element was the development of “grounding sessions.” It was decided that these sessions would be held on a regular basis throughout the timeline of the project and would focus on providing educators with project-relevant and climate action-relevant resources, examples of resilience initiatives from other projects and/or jurisdictions, and connections to relevant subject-matter experts. These grounding sessions became the foundation for the ongoing process of engagement with educators.

3 The third element was the creation of “wisdom circles”, also to be held on a regular basis. These sessions would include educators, youth, and project team members and would be designed to allow for knowledge and ideas exchange, and the sharing of experiences and reflections between pods. A more complete explanation will follow further in this story.

This infrastructure – pods, grounding sessions, and wisdom circles – were alive throughout the lifecycle of the project. The school-based pods met face to face, but due to geographic diversity and travel limitations, the Grounding Sessions and Wisdom Circles met virtually on Zoom. These meetings occurred on a regular basis throughout the school year for two school years: September 2021 to June 2023.

Key processes and principles guiding the YDCR Project

In addition to the basic infrastructure of pods, grounding sessions, and wisdom circles, the extended project team (core and educators) as mentioned previously, agreed to three foundational practices that would guide the work. These were Design Thinking, Place Based Education, and Reconciliation, or Reconcili-action as we came to call it, the active practice of valuing Indigenous Ways of Knowing, Learning and Being. These commitments provided thinking models and resources to help guide and inform the process youth engaged in to identify the climate concerns on which their project might focus. Through this process and discussion with others in their communities, issues emerged as ones they were collectively interested in addressing through their project(s).. Without being explicitly conscious of the fact, in this process the youth were enacting

the Empathize and Ideate phases of the Design Thinking process.

In addition, these foundational principles provided a common language for the student/educator pods, to support them connecting and sharing learnings, resources, and meaning.

Place Based Education

Place-based education emphasizes learning through engagement with local communities and environments. It involves real-world experiences such as studying local natural environments, collaborating with businesses and community organizations to explore and address real-world issues in place, and tackling community challenges such as restoring Indigenous natural environments, or promoting food safety awareness and action through community gardens.

Place-based learning activities are designed to teach a wide range of skills and concepts while simultaneously enhancing learner's connections to their communities and to nature.

As Stobel (2004) describes it, “place-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences, this approach to education works to increase academic achievement, helps students develop stronger ties to their community, enhances students’ appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens.”

In the YDCR project, each student-led pod was encouraged to begin the Design Thinking process through noticing needs arising from climate change related impacts and issues occurring in their home area that they could actively, and realistically, address. In many cases these issues were only indirectly related to climate change or had the potential to be exacerbated by climate change. This included such

things as land and water pollution, recycling, food security, and human impacts on socio-ecological ecosystems. These issues led to them identifying potential actions such as encouraging composting, engaging in advocacy related to the environment and biodiversity, removing rusty cars as a way of opening up the possibility for healthy land uses such as community gardens, and building awareness and understanding of the impact of acidification on ocean ecosystems. All pods, in other words, began with a process of noticing.

In the introduction to this project narrative, we indicated the following: “So, we knew that whatever we proposed would need to build on, integrate, or enhance existing work happening within the school systems in both locations, rather than adding in new work.” This understanding was relevant to this foundational principle of Place-Based Education, since the primary place of each pod’s initiatives was their school or extended community. In this way, all of the projects began with what they noticed in their school environment or when stepping outside of that environment. This focus was designed to ensure that the actions taken were both realistic and possible, and in alignment with the intentions of Place-Based Education.

As the YDCR project unfolded in PR and BC the principle of place based education emerged in meaningful ways, connected to the different diverse cultures of both locations in terms of political and environmental realities. What became evident was that the two narratives would be rooted in their places and reflect the differences. Just as the difference in the pods of BC resulted in a richer experience and outcome, the differences between PR and BC resulted in beautiful connections and understandings of climate action that would not have emerged without the two processes unfolding in collaboration.



Indigenous ways of knowing, learning, and doing

First Peoples' Principles now play a significant role in the BC K-12 Curriculum. One of the YDCR project's participants, educator Lori York, has developed a program called LEAF, Leadership – Environment – Action – First Peoples' Principles of Learning. While teaching at Lord Byng Secondary in SD 39, Vancouver, Lori led a cohort of teachers at that school in using aspects of the program in their curriculum and their teaching. She has created a model for teaching with the First Peoples' Principles described very well in the article *The Leaf Project. Green Teacher* (see: <https://greenteacher.com/the-leaf-project/>; York, L., 2022; March 29). As a pod leader, Lori made a significant contribution to the YDCR project as a whole (as did all pod leaders) by leading a wisdom circle and continuing to foreground First Peoples' Principles in all group sessions. In her land acknowledgment, Lori included a fulsome recognition of the role of historical beginnings and ancestral influences, bringing the third principle of this project alive.

The land acknowledgement has become common practice across Canada as one of the ways of foregrounding Reconciliation. But it can also at times be offered in ways that are more performative than deeply felt. As Reconciliation and First Peoples' Ways were core principles of the project, we wanted to begin all meetings with a land acknowledgement. In keeping with the depth and personalization of Lori's approach, we started all meetings with land acknowledgements and invited participants living in different parts of the province to share their land acknowledgements. This practice invites reflection and recognition of the centuries of land stewardship by Indigenous peoples and offers a path of connection with the land and the peoples of that land. In the YDCR project, these acknowledgements provided a respectful, thoughtful grounding and honouring of place and history, and respect for those who have stewarded historically, and continue to steward the lands on which the work of YDCR was happening. In addition, students, as they designed their projects, were encouraged to reach out to local Indigenous community members to gain their perspectives, as well as to better understand the

wisdom gained over centuries by Indigenous people, that could and should be a model for climate action.

In addition, one of the Grounding Sessions for educators featured Lysandra Nothing, the Marketing Specialist for Indigenous Tourism Alberta's (Calgary Alberta) "Indigenous Youth Climate Action". Lysandra focused on bringing the Indigenous perspective to engaging youth in climate action, through the telling of life stories. In so doing, she provided educators with a touchstone for passing on lived experiences and reflections upon those to their students. Although we would have liked to do a follow up session with students, we were unable to schedule a second session with Lysandra.

Design Thinking in Practice in YDCR: a process for generativity and resilience

During the YDCR project, we found that known design thinking frameworks could be a basis and not a recipe for how we would move forward. Before we began the work of working with the youth-led pods, the core team also explored how the DT process could become more aligned with the goals of decolonization.

Early on in the project we met as an extended team with members from the BC and PR teams. As part of this we engaged in a discussion of colonization and how it had impacted PR and BC/Canada, and explored how we could engage with each other and with the participating students and educators in a process that aligned with the goals of decolonization and the goals of working in ways that would foster relationships that were not extractive.

We wanted to work with DT in ways that reflected this commitment, restructuring the design thinking methodologies in ways that might better acknowledge and address the colonial assumptions, biases, and values inherent in concepts such as design thinking that have emerged from Western thinking. This includes challenging any practices within design thinking that might replicate, unintentionally or otherwise, colonial structures and power structures.

For us this process entailed:

1 Recognizing Colonial Legacy: Acknowledging the historical role of Western approaches to problem solving and solution generation in perpetuating colonialist agendas, including cultural appropriation, marginalization of indigenous knowledge, and reinforcement of dominant Western perspectives.

2 Centering Marginalized Voices: Prioritizing the perspectives, experiences, and needs of students and community members in the design process. While this is generally a part of design thinking, we wanted to be very intentional about actively seeking input from students and educators to ensure that they felt that their voices would be heard and respected.

3 Redefining Research Success Metrics: Research involves the systematic collection and analysis of information or data and the success of research is often framed using metrics such as the number of participants and specific often predetermined outputs. We wanted to move away from such conventional metrics of success to think about metrics that focused on participating youths' perceived empowerment as a result of participation, projects that emphasized social justice, equity, environmental sustainability, and community and individual resilience.

4 Collaborative and Inclusive Design Processes: At its heart, design thinking is an inclusive and participatory process that if done well, engages participants at every stage from problem definition to solution implementation. We brought this orientation to the project design itself, inviting and encouraging educators and interested students to co-create the research process including the framing principles (see above) and the types and focus of the projects students and educators engaged in.

5 Cultural Sensitivity and Appropriation: Throughout the process we were mindful of cultural appropriation and worked to ensure that project decisions respected and honored the diversity of cultural identities of those participating.

Overall, for the YDCR project, our approach to adopting an intentionally non-hierarchical design thinking process sought to ensure that our processes were ethical, equitable, and socially responsible, while collectively contributing in whatever ways we might to the project outcomes of the pods.

For example, while replaying recordings of the “Wisdom Circles” it is almost impossible to discern who are the adults and who are the students since we tried, as part of decolonizing the process, to lose the typical hierarchy of age. Everyone who participated was invited as an equal participant; everyone was assumed to bring wisdom to the circle regardless of age or experience. This contributed to meaningful connections and trust with those involved and signaled a desire to ensure that not only our work internal to these circles but also to the work of the student-educator pods would adopt a similar orientation such that the design process would be collaborative, inclusive, and respectful of diverse perspectives.

As another element in our attempts to be as thoughtful and intentional about the DT process as possible, the core team integrated a process of reflection at each stage and critically assessed what they observed and how they participated.

This was a process of recalibrating.

This reflection included a consideration of whose voices were present and, equally importantly, whose voices might have been absent. Also, we considered what was being said and what that might mean in planning the next session. What learning needs were being revealed?

Innovation, collaboration and flexibility are core to all DT. Bringing this intentionality about power and colonization to this process enhances the awareness of power and privilege and how these play out in the DT process and is in keeping with the iterative evolution of DT. This orientation also aligns with the desire to pose and explore powerful questions that attempt to address the root causes of the issues being addressed rather than only addressing the symptoms of the problems. Further, this non-hierarchical lens reminds us of the value of the collective and collaborative nature of the DT process, and the power of bringing together diverse partners, thinkers, and community members to generate something greater than the sum of the parts. In the case of YDCR, the goal always was to support youth and educators generating and enacting projects that might contribute to the wellbeing of their communities and hopefully, the planet.

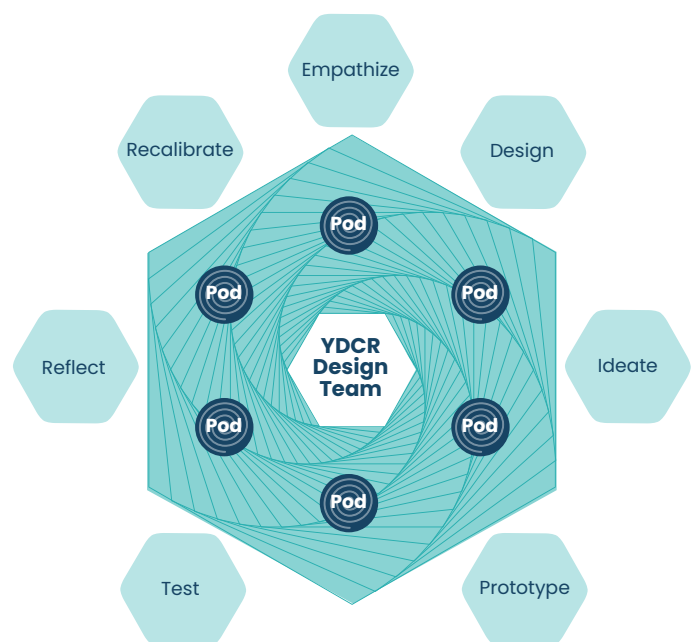
We believe our approach to addressing power and voice in DT enhanced generativity and the alignment of the work with the other project principles. We also found the adaptable and responsive nature of DT was a demonstration of its strength, usability and flexibility as a process for exploring and innovating in response to a wide range of contexts, interests, and goals. This can be seen in the ways in which the different pods used DT in the YDCR BC process as it unfolded over the course of almost two years (September 2021 to June 2023):

1. In the second Grounding Session, Jeff Hopkins, Principal at Pacific School of Inquiry and Innovation in Victoria, BC, for instance, Jeff explained how students at his school worked with a local company to design and develop interactive decor for a conference. This design process utilized interdisciplinary skills and challenged the students to connect with the community to collaboratively design, develop and deploy a real-world product. A more detailed description is provided later in this report.
2. In the Vancouver Pod, students who were part of a Climate Action club at a large secondary school, had noticed that although climate action was part of the curriculum it was not a significant aspect of the material being taught in classrooms. As a result, the students used DT to develop climate education kits that educators could utilize with younger students. These kits, developed by students for students, highlighted a diversity of challenges and perspectives within climate action, and provided students with a rich experience of learning, reflection and discussion.
3. At the very small K-12 school in the Whistler-Pemberton area located in a remote Indigenous community, students were empowered to explore their community for climate impacts. It was within this exploration that students identified rusty cars as an issue they wanted to address. The students then broke out this issue to identify the further impacts for both human and non-human community members. For example, some of the students mapped out the impacts this would have on local wildlife while others mapped out the impact on the ecosystem, contracted with a removal company and were able to start that removal process, with two of the cars being gone by the end of the project. This project is continuing into a third year, with the goal of removing more cars and reclaiming the land to plant trees.

Our approach to a more equitable and inclusive DT in YDCR meant that all the work of the pods was led by youth, and began with a process of what is often termed the empathizing stage of DT, or, in the Resilience By Design R-SIL process is called “Connect” signifying the importance of building relationships with each other, and connecting and learning from others with an interest in the outcome of the project. Practically this meant, in each pod, that students began by noticing climate related issues in their immediate community and connecting within and outside the pod to explore the issue/question and build a shared understanding and direction for the projects they wanted to undertake. They engaged in various activities designed to brainstorm ways to respond, and then collaboratively designed an approach that involved members of their community, to address those issues.

As the work in pods evolved, so too did the thinking of the core team. Adopting a DT lens to our work resulted in an interactive process of reflection and recalibration that, in effect, produced the prototype for the next meeting. This ongoing design cycle of refining our thinking and responding to what emerged from the pods and the sessions with educators and students is illustrated in the diagram below, which offers a way of visualizing the core-team’s design thinking process as a wrap around, in effect, the youth’s design thinking processes in their pods.

Interconnected spirals of Design Thinking:



The YDCR Project Process

Grounding Sessions, Wisdom Circles, & Co-designed Documentaries

As mentioned earlier, the first meeting with educators occurred at the beginning of the project once funding had been secured. We were committed to co-designing the project as much as possible together with educators, and so we began this first session by sharing our vision for the project and the research, and posing some guiding questions to support our co-development with the educators moving forward.

The educators with whom we were working engaged in the co-design process as much as time permitted. The Core Team invited their thoughts, perspectives and expertise. These conversations, along with the early work and thinking that was done during the proposal writing phase resulted in the first step in our own DT process.

The educators provided valuable advice regarding involving students in ways least disruptive to their demanding in and out of school schedules of classes and after school commitments, as well as identifying those students who would be most likely to participate (i.e., the most engaged students). Earlier in our own thinking, we had considered trying to find ways of integrating the YDCR project in the established curriculum within participating schools, however this proved too challenging. In addition to the constraints of already demanding curriculum schedules, climate change is only beginning to be woven into the K-12 curriculum, and so there were few opportunities to weave this project into existing curricula.

In BC, a relatively recent curriculum innovation is the Capstone graduation requirement. A Capstone is an independent culminating project, presentation, or performance that provides students the opportunity to showcase learning from their school and life experience into a project that is both reflective of more self-

directed learning undertaken by, and meaningful to the student. With the educators, we discussed the possibility of students using YDCR initiatives for their Capstone opportunity with the hopes that it could become more integrated with their in and out of school learning.

What ended up evolving, however, was that in most cases, students' YDCR initiatives became an addition to, rather than an integrated component of their school work. In two cases, the YDCR projects became part of the work of school clubs, run by Grade 11 and 12 students. In one school, where Climate and Environment was already being explicitly addressed in a developmental manner across the K-12 curricula, the YDCR project was integrated. In another school, where all learning is based on inquiry, the initial engagement with YDCR was very strong, however because the student pods were "ready to go" while other pods from other schools were in the initial stages of planning, they decided to continue on their own.

Through the Wisdom Circles and Grounding Sessions, the pods were facilitated to form a network of support, learning, and sharing. Each pod addressed climate change and ensuing action in their own unique way based on their place, community context, and school setting.

The kinds of environments where each pod existed were diverse. The pods included, as mentioned previously, participants from Vancouver, Victoria, the Cowichan Valley, Salt Spring Island, Richmond, Comox Valley, a small city in Southeastern BC, and an even smaller community in the Whistler/Pemberton area. Each pod developed place based projects that were unique to their context. The pods, creating a network through connecting in regularly scheduled wisdom circles, would then be able (we hoped) to develop a sense of confidence, connection, and deepened understanding, leading youth to continued climate action. (See graphic above)

Grounding Sessions

Primarily for the educators, the grounding sessions involved speakers with both theoretical and practical knowledge and experience in place based learning, design thinking, indigenous ways of knowing and being, and climate action. In addition, educators shared resource materials and strategies that they had developed and used as well as ways to engage and involve students. The resources are being held in a repository that can be accessed here. https://drive.google.com/drive/folders/1lzIFpo_s07RSJoGGT9i0sFG_AmOwBcB6?usp=sharing.

The Grounding sessions were a pivotal component of the project, inviting educators to consider a range of multi-disciplinary perspectives. Educators were learning through the grounding sessions, and simultaneously we were learning how to support the educators in ways that met them where they were at while providing resources to help them and their students into the future .

These sessions featured an array of knowledgeable speakers, each bringing their unique expertise to the virtual stage. The overarching theme was to empower educators with innovative tools and strategies to enhance their teaching methodologies, emphasizing place-based learning, indigenous wisdom, design thinking, climate action, effective communication, and project management. The sessions not only served as a platform for knowledge dissemination but also facilitated the exchange of valuable resources and practical insights.

Grounding Session 1:

January 20, 2022 "Design Thinking in Puerto Rico" – Maggie Favretti Project Coordinator PR (Founder DesignEd4Resilience, Where) and Pamela Silva Diaz Design Lead PR (Pamlab Design) (Puerto Rico)

Maggie and Pamela provided a deep dive into the application of Design Thinking in the context of PR. This session explored how design thinking can be harnessed as a problem-solving approach, particularly in an environment with unique challenges. Maggie and Pamela as design thinking practitioners reminded the group that the language of design thinking can and should be adapted to the place and for the people who are undertaking the process.

Grounding Session 2:

February 24, 2022 "Design Thinking with Students and Community Clients" – Jeff Hopkins Founder & Principal of the Pacific School of Innovation and Inquiry (Victoria BC)

Jeff shared his expertise on engaging students in design thinking processes involving community clients. This session delved into the practical aspects of incorporating real-world projects into the curriculum. One of the key stories shared in this session was focused on designing and building a light box for a clients' conference. This challenge was truly interdisciplinary because it had the students thinking through the engineering and development of the boxes, the use or social behavior of event guests, and a technology to program the lights inside the boxes.



Grounding Session 3:

April 22, 2022 “Design Thinking Environmental Action in Alberta” – Adam Robb Executive director of Howl Experience (Canmore Alberta)

Adam Robb’s session was focused on how design thinking can be harnessed for environmental action, tailored to the specific context of the province of Alberta. This was particularly relevant in addressing environmental concerns in a region known for its natural resource extraction. One of the key stories shared was focused on a solar project where students were working with the government to build policies and programs to help schools get solar panels. Adam highlighted the impact the students had and emphasized the need to reach out to the community in many ways. It is this community involvement that enabled this project and many others in Adam’s classroom.

Grounding Session 4:

May 17, 2022 “Lord Byng Students Climate Education” (Lord Byng Students)

In this session students presented to the educators. This particular group of students had worked together on climate initiatives prior to joining YDCR, supported by a teacher at the school. The students showcased climate education kits they had designed and built to support climate education for younger students in their nearby elementary school. The students identified the need for more in depth climate education and were not waiting idly by for anyone else to solve this issue. At the same time they spoke of how important it was to have teacher support, both for access to other adults, as well as to guide and coach them with the ideas they generated.

Grounding Session 5:

“Design Thinking: Interdisciplinary Action-Based Projects” – Two District Learning Specialists from the Comox Valley, BC

The two learning specialists shared their work with teachers in supporting interdisciplinary, action-based projects through design thinking across their school district. This session focused on the approaches and resources they designed to support teachers in bringing climate education into their curriculum areas.

Grounding Session 6:

November 15, 2023 “Designing a New Community School” – A Vice Principal from a Rural Indigenous Community School

The session revolved around the exciting evolution of designing this community school from the ground up. The Vice Principal highlighted considerations of curriculum design, infrastructure, and community engagement in a small indigenous community. To end the session the Vice Principal shared the key factors for success most notably developing a strong relationship with the community and involving them every step of the way.

Grounding Session 7:

January 19, 2023 “Indigenous Youth Climate Action” – Lysandra Nothing, Marketing Specialist Indigenous Tourism Alberta (Calgary Alberta)

Lysandra is a youth changemaker who has been shaking up her world from a young age. She has developed several projects focused on climate and indigenous rights. Lysandra is also a talented writer whose articles can be found in magazines and news sites across Canada. In the session Lysandra delved into the vital topic of indigenous youth engagement in climate action. Indigenous ways of knowing and being played a central role, demonstrating the importance of cultural perspectives in environmental efforts. Lysandra told stories from her own experiences which, if educators shared with their own students, would provide outstanding modeling for the students .

Summary

The virtual format of these sessions allowed educators from across the province to participate when possible, and participation during this was optimal.

These sessions appeared to serve as a valuable resource for educators, both as a “meeting place across the miles” offering a comprehensive exploration of topics essential for modern education, while also fostering a community of practitioners dedicated to innovative and sustainable teaching methodologies. All the resources shared during these sessions were collected and made accessible through the repository mentioned above, ensuring that educators could continue to benefit from these insights and materials once the sessions had concluded.

Wisdom Circles

The term “wisdom circle” originates from circles formed in various cultures as a way of sharing knowledge and learning in a dialogic process to enhance understanding among all participants. As in “wisdom circle, a gathering of people who speak candidly and from the heart, listen intently to the wisdom of other people, and honor the wisdom and intelligence we all possess to meet both individual and collective needs. (Garfield C. Wisdom circles. *Clinical Laboratory Management Review* : Official Publication of the Clinical Laboratory Management Association. 1998 Sep–Oct;12(5):401, 400. PMID: 10185020.) Separate from circles used in therapy or the like, the intention that is common to the Wisdom Circle is the sharing of perspectives, learnings and understandings, reducing hierarchy and inviting all participants to show up and interact as equals. Long used as a means to share and enhance mutual understanding among all participants, what sets wisdom circles apart is their intrinsic ability to break down hierarchical barriers and create an environment where all individuals, regardless of age or position, can interact as equals. In a review of a book that offers a more complete description of what Wisdom Circles are and what they can do, Garfield, Spring and Cahill, *Wisdom Circles: A Guide to Self-Discovery and Community Building in Small Groups*, Apocryphile Press, Hannacrois NY 1998. TJ Hurley, Director of Education for Noetic Sciences, referring to the process of a wisdom circle says, “this requires no particular magic other than the magic that arises out of respectful contact with each other and our own direct experience”.

It was in this context that we encouraged participants of all ages and positions to participate, mindfully raising the voices of those around the circle who are not always heard. The wisdom circles became an interdisciplinary and intergenerational wisdom exchange. This egalitarian approach was central to the ethos of the wisdom circles, with a particular focus on amplifying the voices of those who often go unheard and whose contributions are missed. Through these circles, participants embarked on an interdisciplinary and intergenerational journey of knowledge exchange, where ideas flowed freely, and experiences were shared.

Wisdom Circle 1:

Climate action: Passion and Design (October 13, 2021)

The inaugural session marked the commencement of a collective journey as students and educators from diverse backgrounds across British Columbia convened. Beginning as in all meetings with a Land Acknowledgement, a warm welcome set the tone as each participant introduced themselves. A tapestry of climate passions ranging from the pursuit of “Climate justice” to the visceral connection of witnessing the impacts of climate change in their communities, propelling them to strive for a better future to be created. The overarching purpose of the YDCR Project was unveiled: to explore the factors that drive youth engagement in climate action through the lens of design thinking, supported by funding from the Social Sciences and Humanities Research Council of Canada.

Participants moved into group discussions, tackling three pivotal questions:

1. the genesis of their commitment to climate action,
2. the magnetic forces drawing them into this realm,
3. the essential supports that empower youth in their climate engagement.

Insights and reflections were collaboratively woven into the whiteboards shown below, fostering a shared understanding of the diverse motivations and needs within the group.

The session then delved into a rapid design thinking challenge, where groups passionately ideated a vision for a classroom embedded within nature. This creative exercise served as a catalyst for innovative thinking and laid the foundation for collaborative endeavors ahead. The meeting concluded with thoughtful questions and a roadmap for the journey with the promise of further wisdom circles to deepen the exploration of youth engagement in climate action.

The next three pages are a record of the comments made in the first wisdom circle.

The first time you knew you wanted to be engaged in climate action:

When the 'frontline' came to my small hometown and turned us into climate activists for wanting to protect our water and land.

Reading a book about First Nations people in grade 4, there was a quote in it that said "only when there are no more fish in the sea will we realize we cannot eat money."

After the lecture about the education in the era of climate change where I heard about this issue for the first time in my life.

Experiencing more and more disasters and seeing how much climate is accelerating and amplifying - those motivated me to learn and take action through my work and in my personal life.

Growing up in the political context of South Africa, noticing that enaquoties in climate resources.

Smog and air pollution gave me an awakening to environmental / social justice issues. But then later I saw silos within and across social movements that hinder us.



2

What supports help youth engage in climate action?

Inspiring people to know their actions can have positive impact.

Youth speaking, and youth leadership. Reminding youth it is their (our) future we are working towards.

Like Greta Thunberg... shows they can take action...that it takes one person, and as educators, providing that momentum piece in getting things started.

Having a role model(s), whether an adult or someone who helps youth see they can have momentum supports them having a voice, believing they are worthy and can make a difference.



Access to experiences (eg. expeditionary learning through Students on Ice). Programs that genuinely listen to youth. Schools could support more as well!

Having friends to support me and connecting with different activists from all over the world with different backgrounds.

Educators teaching youth how to work in climate activism, eg. research development, politics, management

Pushing the narrative that there is something that can be done.

Collaboration and assistance from teachers - not just saying "we support you" when we ask for assistance.

Setting up things that youth can actively participate in.

Momentum



3

What makes you feel drawn to engaging in climate action?



My best friend has been a climate activist since grade 3, and she has been pushing me to learn about the climate change and what I can do...slowly over time as I looked into it.

Because the way that people will be involved in pods that are place based, this circle is an example of a larger pod and the collective wisdom gained.



Grief, loss and despair over the old trees and the wisdom of the land leads me to act. Engagement makes me feel hopeful.

Participating in sustainability camps

The lack of action from the government and other people in power.

I feel it's a very pressing problem that the world doesn't have a lot of time to solve, so it's pressing that we solve it as soon as possible.





For several of the sessions, the conversations were recorded visually.
 Drawn by Graphic Artist, Nicole del Negro. (Wisdom Circle I shown below.)



Nicole del Negro



Nicole del Negro

Wisdom Circle 2:

“Climate Action Initiative Inspirations” (December 14, 2022)

During this session, participants delved into the creative process of ideating climate action initiatives. Exploring various initiatives implemented by fellow youth served as a catalyst for generating ideas for their own projects within this initiative. Engaging in brainstorming sessions, students and teachers collaboratively refined their concepts, aiming to determine the most impactful initiatives to pursue.

A student emphasized the educational aspect integral to environmental initiatives, stating, “I think with our projects just within the high school, we try to have an educational aspect. Like, when we do clothing swaps, we explain why. What about the compost program? What about the ripple effect on the tree shoots?”

An educator highlighted the collaborative spirit across age groups, citing an example from the previous year: “Last year, my students wanted to revise the whole recycling system at the school. The other piece they did was a unit of lesson plans to deliver to elementary school kids...there’s this common theme of older students reaching back, reaching down through the

grades.” This observation underscored the significance of multi-age collaboration, echoing a recurring theme within the wisdom circle.

A student shared their perspective on the interconnectedness fostered in the wisdom circle, stating, “I kind of could see all that connecting going on...I feel like this is a big part of the support, just getting to listen to other people.” The wisdom circle emerged as a space where ideas were not only heard but celebrated, contributing to a vibrant tapestry of shared experiences and insights.

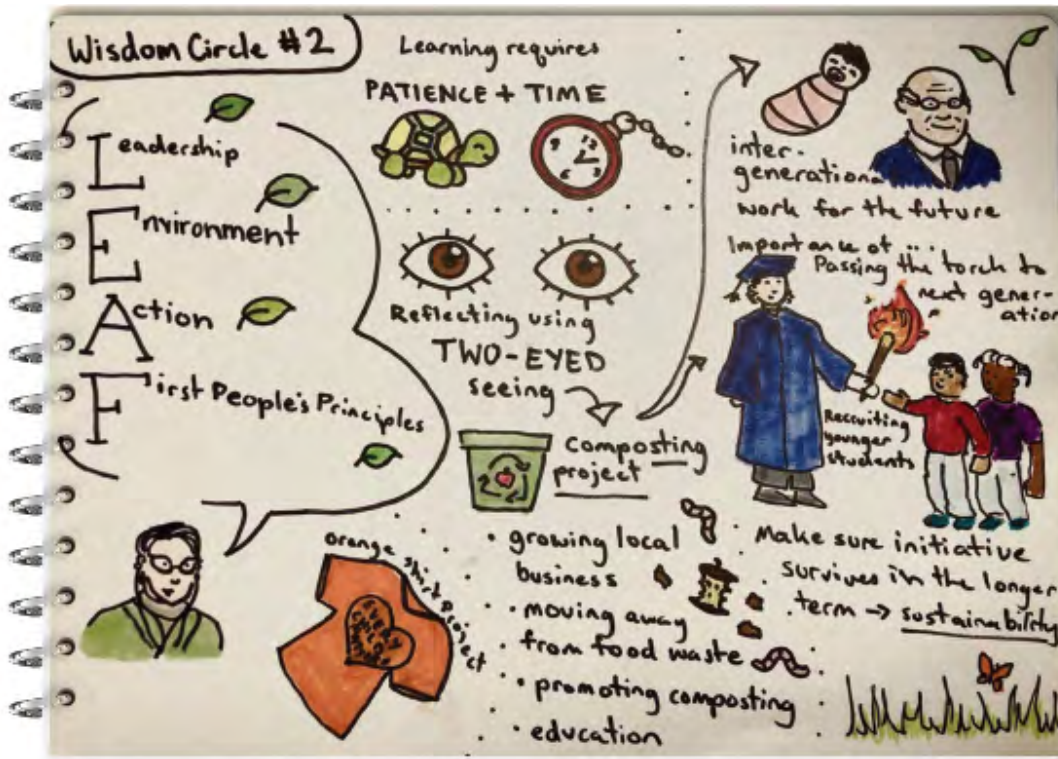
The session also addressed the practical aspect of resource-sharing, with participants expressing interest in accessing resources from previous meetings. This led to the establishment of a resource repository, enhancing the collaborative nature of the initiative. An educator expressed enthusiasm, saying, “Those kinds of things go into a resource repository...I would love to get my hands on those resources.”

In essence, Session 2 not only focused on identifying local climate issues but also underscored the interconnectedness of initiatives and the pivotal role of education in driving environmental projects forward.





Visual recordings by Nicole del Negro (Wisdom Circle 2 shown below)



Nicole del Negro



Nicole del Negro

Wisdom Circle 3:

“Guiding Students through LEAF Pedagogy” (February 15, 2023)

This wisdom circle, led by YDCR participant and educator Lori York, the originator of the LEAF program (York, L. (2022, March 29 - <https://greenteacher.com/the-leaf-project/>)). The session delved into the LEAF Pedagogy, emphasizing Leadership, Environment, Action, and First Peoples' Principles. This program provided a comprehensive framework for the educators and students in the diverse pods across BC to explore their climate action initiatives, offering new ways of engaging with the issues, and fostering new insights and understandings while also increasing students' confidence and self-efficacy.

Lori, as she facilitated the session explained, “[w]hat we found is that students who choose to work in this framework, have this real growth of confidence.” The in-session discussion also highlighted the importance of incorporating First Peoples Principles of Learning, fostering a connection to local Indigenous peoples. The use of this framework within the design thinking process not only increased students' confidence it also enhanced their sense of freedom as they pursued their climate action. As Lori described in the session, both process frameworks, Design Thinking and the LEAF framework, encourage a valuing of the benefits of including a diversity of perspectives.

During the session, participants explored specific principles that resonated with their experiences. One student noted that “[w]e had a lot of just older students on the environmental action team for last year and then this year, we started focusing a lot on getting younger kids to come.” This student reflected on how the principle of generational roles and responsibilities in the LEAF framework had influenced their initiative, and prompted them to involve younger students to ensure project sustainability. Another example of how these principles influenced students' choices was the principle related to recognizing the role and value of Indigenous knowledges and worldviews in addressing climate change. In one pod-project, for example, this prompted students' reflections on the need for incorporating Indigenous knowledges and perspectives in a compost system project. The principle of “learning involves patience and time” also resonated with students, who highlighted the value of sticking with a project, or perseverance.

Other themes that emerged in the work within and with pods, related to the importance of mentorship. One educator emphasized the mentorship role teachers play in supporting the cycle engaging with a problem and moving to climate action. This recognition of the benefits of adult mentorship was echoed by the students, many of whom expressed regrets that not more teachers were involved in the projects. Overall, this Wisdom Circle session illuminated the significance of the LEAF Pedagogy generally and specifically in relationship to cultivating climate action. The pedagogical framework emphasizes the interconnectedness of leadership, environmental awareness, taking action, and the importance and value of integrating Indigenous worldviews to foster impactful, place-based and place-relevant climate initiatives.

Wisdom Circle 4:

“Connecting Pods Across BC and PR,” (April 20, 2023)

Served as a compelling showcase of the impactful connections we were hoping to forge between pods in BC and their counterparts in PR. Educators and Students described their projects and had time to receive feedback. The conversation transitioned beyond the specific climate initiatives to an engaging conversation around climate impacts in both BC and PR.

A student from BC introduced their innovative approach within their Climate Action Initiative, stating, “we’re also going to be having a little competition for our school... giving away some house points for teachers looking out for students composting, recycling, or picking up garbage.” This initiative aimed to motivate students through friendly competition and foster waste management practices within the school community. In addressing the impact of the pandemic on waste, a student shared, “Yeah, and we feel like the pandemic definitely impacted how much food waste was happening. Before, we had individually packaged items more often in our cafeteria, so I feel like in the last year it’s definitely gotten better.” Despite challenges, the students expressed resilience and future plans for food recovery, emphasizing their commitment to addressing environmental issues on a practical level.

It was clear that these students, without consciously doing so, were noticing what was happening

around them and then acting on that, at that point empathizing, ideating and working to make things better in their own place. In many instances, we noticed that Design Thinking was an unconscious way of thinking and acting and that it was not a big leap to make that process a conscious part of future initiatives.

Insights from a student engaged in climate change advocacy and marine biology initiatives showcased diverse avenues through which youth contribute to environmental causes. The collaborative spirit extended as an educator from PR emphasized empowering students: “we are engaging in more research, but at the same time in a way that is empowering the kids to decide what it is that they want to investigate, how they want to solve the problem.”

Discussions about local environments highlighted the diversity of ecosystems, with a student asking, “When you walk outside, what trees do you see?” and an educator from PR sharing, “we have about six of the main biomes, including tropical rainforest, but we also have very dry regions.” This exchange showcased the richness and variety of natural landscapes, the “place” in which the projects were occurring and the contrast between BC locations and those in PR.

The session concluded with reflections on the visible impacts of climate change. A student from BC inquired about the effects in PR, prompting a response about beach erosion and the loss of bioluminescent bays. Educators from PR underlined the practical implications of climate change on projects, such as food security. The session exemplified the power of collaboration, showcasing innovative approaches and determination in addressing global environmental challenges.

Wisdom Circle 5: “Connections and Convergences” (May 18, 2024)

In this cross-project wisdom circle, participants shared updates, exploring both the unique challenges and shared aspirations in their climate action endeavours. A Canadian student shed light on efforts to establish a compost system for their school district, emphasizing the need for district approval and commenting on how their enthusiasm came up against needs for

permission. “We had proposed a system that could potentially work...it’s a priority for the students, which is great. And they are on board, but just recognizing that this will be something that will take quite a bit of time.” Students further delved into the long time span of the project identifying communication challenges: “Communication being the biggest challenge... in a more remote community, I think it’s just been slower to get here.”

On the other side of the conversation, a student from PR shared insights into their communication strategies, highlighting the importance of personal visits in their smaller locale: “I kind of always go for the telephone or just visiting them... but if we only have email, we just have to be patient.”

The session provided a platform for the discussion of global climate concerns, from early-season wildfires in Canada to beach erosion and hurricanes in PR. Participants also spoke of initiatives like beach cleanups and zero-emission field trips. Participants recognized the diversity of challenges faced in different regions: “It’s interesting to see the tourist lens of how important the tree is” (Canadian Student), highlighting the varying perspectives on environmental assets between BC and PR. The session underscored the collaborative nature of learning, adapting, and addressing local nuances in the pursuit of impactful climate action.

Summary

The virtual nature of these wisdom circles allowed for broad and inclusive participation, bridging geographical boundaries and fostering a sense of interconnectedness. However, it also introduced challenges related to technology and remote communication. Nevertheless, these wisdom circles stood as a testament to the power of open dialogue, collaborative learning, and the collective pursuit of knowledge and wisdom, transcending age, status, and distance. They embodied a dynamic platform for change and innovation in the context of environmental education and climate action across cultures.

Outcomes and Outputs

Cross Cultural Exchange

YDCR, although situated in both BC and PR, with the same intentions and questions, unfolded differently in each location. PR had already faced significant and pervasive climate impacts and began their project with a greater sense of urgency for students, educators and community members, before the BC research began. With that, there was a sense that the BC project could, in some way, be “mentored” by approaches in PR. However, given the differences of place, culture and distance, the divergence of the projects made for more of a partnership of knowledge exchange than a mentoring relationship. As the two projects proceeded however, the climate impacts occurring in BC – a heat dome resulting in 169 deaths; significant forest fires and flooding that resulted in massive evacuations and widespread damage – made it clear that climate change was here, and that the impacts were already being felt by individuals and communities in BC.

In PR, the YDCR project was conceptualized in a similar but also unique way. The PR-YDCR used a sequence of circles that described the Design Thinking actions to be taken. The PR team also worked largely using face to face communication unlike the virtual approach adopted in BC-YDCR. In both national contexts, the pods were located in different geographic regions and communities, and each responded to their specific and unique contexts of place and student’s ages and interests contributing to rich conversations between pods.

Both BC and PR projects connected educators and students in a non-hierarchical manner, so that perspectives shared and knowledge gained arose as much from lived experience as from theoretical learnings. As well, the educators/community workers acted as mentors and guides, depending on their context, whether working in a classroom, or working outside the school day in a club or on a communal volunteering project.

Meetings between both the PR and BC research teams occurred regularly, and a team from the PR project, early in the project, presented a workshop to share the historical, political and cultural context underlying their research. Two of their members also presented their approach to Design Thinking at one of the shared grounding sessions. In addition, several of the Wisdom Circles in BC included both educators and students from the PR team as full participants in the circle as mentioned by Joel Sagar in his Forward to this Guidebook. This resulted in relationships being built not only within projects but also between those involved in BC and PR.

Although connections across the miles were challenged by the time available as well as time zones differences, there is no question that this partnership and knowledge/experience exchange enlivened and enriched both projects, not to mention the increased student enthusiasm in the opportunity to make those connections.

Documentary shorts

One of the outputs of the YDCR project was the co-production of short documentaries focused on youth engaged in climate action initiatives within their communities. These short videos have yielded a positive impact on multiple fronts and proved to be an invaluable component of the YDCR project. Notably, these films have emerged as a potent tool for amplifying the voices of the next generation of climate advocates and celebrating the passion, dedication, and innovation that young activists bring to this critical cause.

The 4 documentary shorts can be viewed using the following links:

Victoria: <https://youtu.be/cSGSLIHvk78>

Richmond: <https://youtu.be/QKilz8KWHp4>

Revelstoke: <https://youtu.be/Bi9oVquuHi0>

Q’Alatku7em: <https://youtu.be/MejepALT70U>

Video Recording Process

The creation of these documentaries involved a thoughtful and deliberate process that integrated the voices and experiences of the youth involved in climate action initiatives. Until the making of the documentaries, all interaction had been virtual. By April of 2023 travel and face to face meetings had become more common, and so one team member, Austin Lang, undertook a journey to meet with each of the active BC pods. We called the trip, the “How Tall is Austin?” trip, referring to the fact that none of the students nor educators had met Austin in person and, hence, had no idea how tall he actually was. It was a fun way of signaling the intent of the trip which was to document in some way the work of each pod and do it while having fun. The trip and the interactions with each pod were guided by a set of three fundamental questions designed to elicit the core essence of the pods’ efforts as well as to understand and highlight how the pods’ projects reflected a DT approach.

Question 1.

Why do you love your community, and what makes it special?

This foundational question delved deep into the emotional connection that the youth felt toward their local communities. It encouraged them to articulate the unique qualities and aspects that made their communities extraordinary. This question was connected to the empathizing phase of DT

Question 2.

What climate impact did you explore, and why? What did you do?

The second set of questions revolved around the heart of their climate action endeavors. These inquiries prompted the youth to explain the specific climate-related issues they chose to address and

the underlying motivations driving these choices. They detailed the concrete actions they undertook to confront these challenges. Through their responses, the unwavering determination and resourcefulness with which they approached their initiatives became evident. The DT phases of defining a problem, ideating solutions, and prototyping those solutions informed their decisions and conversations about the choices they had made.

Question 3.

How does this impact you moving forward?

The third question, essential to the documentary creation process, provided a platform for the youth to reflect on the transformative and enduring effects of their climate action initiatives. It encouraged them to consider how their actions had personally shaped them and how they envisioned these experiences influencing their future trajectories. This reflective aspect allowed for a comprehensive exploration of the broader and lasting impact of their efforts, both on a personal level and within their communities, and was a fundamental aspect of moving forward in building knowledge and understanding about climate change and how to address it. In DT language, this connects with the process of testing and recalibrating a prototype as needed.

Along with these guiding questions students were given a short lesson on film making highlighting the need to have a series of film clips that could be linked together to build a visual narrative to accompany the vocal narrative. Students were then given camera equipment and asked to film in their communities and schools. This was a key component of the co creation process as youth were able to choose what to visually share with others about the project they had undertaken and the place they called home.

The photos and short descriptions below offer some insights into the work of the pods and their involvement in the documentary process.

Documentary Story Overviews

Pod 1: Climate Conscious Education

This pod was part of the project in the early stages, prior to the How Tall is Austin? tour. This meant that the students had graduated when the tour occurred not allowing for a documentary to be filmed. This Victoria-based pod launched an ambitious climate education initiative focused on responding to the identified gap in the current BC curriculum, namely the lack of climate change education within the K-12 provincial curriculum. The students in this pod took action to develop lessons that could fill this gap and equip younger grades with comprehensive insights into climate science, advocacy, and justice.

Driven by the vision to empower the next generation, the students were committed to ensuring that younger students surpass their own understanding, setting the stage for informed and proactive climate action.

The climate tool kits that the students developed were made available to educators across the school district with all of the necessary materials needed to kick start climate education in their classroom.

Pod 2: Wonderland

The QSM Pod is located in a small, remote Indigenous community in the Whistler/ Pemberton area. Youth in the QSM pod

identified a pressing community issue as they noticed a build up of junk cars causing various problems.

Taking a proactive approach, students presented their research and solutions at community meetings, shedding light on the adverse effects of these abandoned vehicles on people, animals, and the environment.

They also highlighted climate impacts, such as fluid and refrigerant leaks contributing to harmful greenhouse gas emissions. The students successfully persuaded the community to address the issue. Further, they secured an initial pick up with a car recycling company willing to pick up vehicles at no cost. The Students were able to become leaders in their community and support the wellbeing of their community members and environment resulting in lower climate risks and greenhouse gas emissions.

The students in this pod took Austin on a tour of their community highlighting the magnificent beauty found in the natural ecosystems that surrounded their school. It was a big day as this Pod had been preparing for months to remove old junk cars from their community and on this day a car salvage company took away the first vehicle.



Pod 3: Compost Glory

In the Southeastern BC Pod, with an after school Climate Action Team meeting on a weekly basis, the empathizing phase of Design Thinking really took place with the students noticing the lack of a comprehensive sustainable waste management system within their school and community. This started with addressing organic waste within their school by developing an onsite composting program.

The insights the students learned from developing the composting program were then utilized to develop a school district wide composting program.

These same students were then invited to help develop a composting program for local businesses.

This pod was focused on creating a school system wide compost program while inspiring and advising on compost plans for their entire town. The students jumped in quickly to capture the ins and outs of their composting project and the massive impact it has had on their school and community.



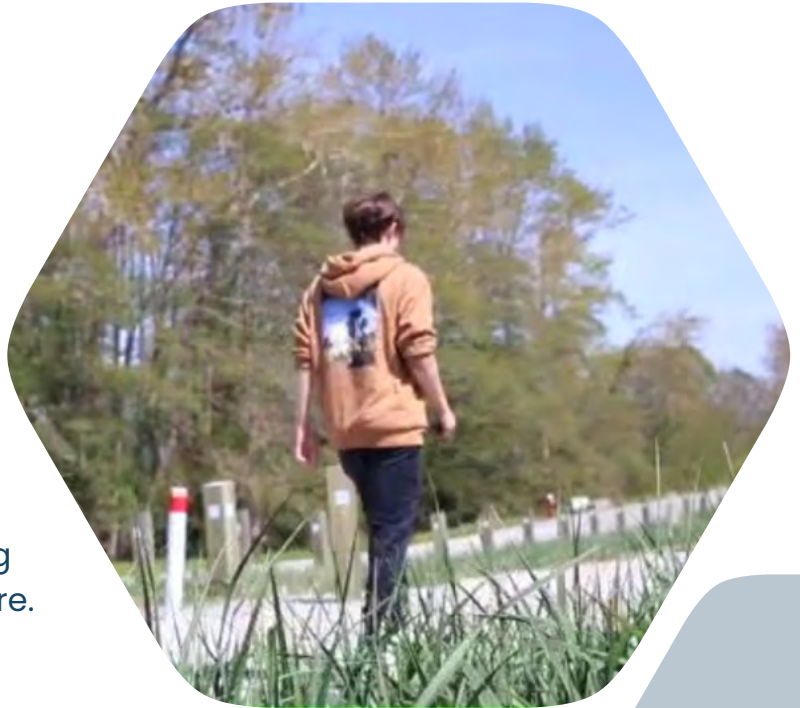
Pod 4:

Advocating For the Future

The Richmond Pod, driven by a dedicated student, exemplifies the power of individual action in addressing climate concerns. Drawing on previous experience collaborating with ocean conservation officers and biologists, the student identified critical climate priorities for both their community and the province. Undeterred by the overwhelming size of the climate crisis, they embarked on a proactive advocacy journey, channeling their insights into persuasive letters to politicians.

The culmination of their efforts manifested in a noteworthy visit to the legislature, showcasing the impactful role of grassroots initiatives in influencing public policy for a more sustainable future.

This pod was acutely aware of the impacts of climate change and was focused on advocating for systems change to ensure a livable future for themselves and other youth. On the walk pictured below the students from this pod explained how they were inspired by their local ecosystems and the changes and climate risks they were observing.



Pod 5:

Reduce and Regenerate

The Victoria Pod initiated a dynamic waste management project, transitioning from their original investigation of ocean-related climate impacts to addressing school waste challenges. Inspired by a beach cleanup and dump tour, the students focused on enhancing waste management practices in their school community.

Witnessing issues like littering and inconsistent composting, they aspired to motivate peers through a school-wide competition tied to points.

By integrating this initiative into the existing school point system, the project aimed to foster collaboration across grades, encouraging small yet impactful actions like composting and recycling for a cleaner and more sustainable school environment.

This pod was primarily focused on reducing or eliminating waste on their school campus. This was prompted by an inspiring tour of a local landfill. It is this inspiration mixed with a love of the natural environments that form their school grounds that drove this pod's work forward. The students were keen to highlight the beauty of their campus including the regenerative work they had been undertaking to remediate a native garry oak ecosystem.



One of the remarkable outcomes of these documentaries is their capacity to serve as moments of deep reflection. As the creators and viewers engage with the narratives presented, they are brought into the unique context of each community and the climate impacts facing each.

The stories showcased in these films bring to the forefront the tangible impacts of these youth-driven endeavors, fostering a sense of responsibility among all who encounter them.

In essence, these documentaries go beyond traditional communication methods. They are powerful instruments for acknowledging and celebrating the remarkable impact and potential that young activists bring to this critical cause. The documentaries represent a unique and transformative facet of the research, providing a window into the collective learning and progress made by these inspiring young advocates.

Summary

Visually documenting the work that students in these pods had undertaken was a way of honouring the students and the work they did. These short documentaries are meant to demonstrate to them and to others how important and worthy their work was, and how critical this work is in furthering the awareness and capacity of those involved and those who witness, to face into climate change and related environmental issues, and consider how to enhance adaptive resilience in the face of climate change impacts.

The documentaries provided the students and educators with a platform to convey their distinctive perspectives and real-life experiences to others from the research including their PR counterparts.

They served as a mechanism for elevating the voices of the young climate action leaders and activities, allowing them to share their unique perspectives and experiences with a wider audience, while also providing a crucial moment of reflection for those participating in the project.

In the making and sharing of these documentaries, both the creators and viewers were invited to contemplate the stark realities of climate change and the tangible impact and potential of meaningful youth engagement in climate action.

Of course, the documentaries also served as a creative and empowering avenue for celebration, showcasing the collective learning and transformative effects of the youth initiatives.

These YDCR documentaries now reside with the pods as an artifact and record of their involvement in YDCR and the commendable efforts these youth made to take action on climate change.

Celebration of Learning

The “Celebration of Learning” was a culminating event designed to acknowledge, honour, and showcase the achievements of the youth participants and educators involved in the project. In order to celebrate their dedication, passion, and the remarkable learning experiences that unfolded over the course of the project, two significant guests were invited to hear about and comment on the work that the students had done.

During this celebration, the spotlight was firmly on the young activists and educators, recognizing their outstanding contributions to the climate action initiatives providing a platform to showcase the transformative impact of their efforts and the invaluable lessons they had gathered along the way. This celebration was an opportunity to applaud their commitment to addressing climate issues and fostering a sense of responsibility towards the environment.

The event featured two esteemed guest speakers. Sonia Furstenu, the Party Leader of the Green Party of British Columbia, shared her insights and perspectives on the broader impact of climate actions. By telling her personal story of how she became involved in politics through community based climate action, the youth were shown a life trajectory into leadership that sounded possible. Her presence added a political dimension to the celebration, underlining the significance of youth-led environmental initiatives in

the context of government policies and the broader climate movement, as well as modeling political leadership focused on looking to the future and acting now.

Dr. Elin Kelsey, “Hope Matters: Why Changing the Way we Think is Critical to Solving the Environmental Crisis” David Suzuki Institute, Greystone Books, Vancouver, Berkeley, 2020, widely known as a leader in hopeful and solutions-focused environmental movements. provided a valuable perspective on the positive and constructive aspects of climate action not only to the climate, but also in generating evidence-based hope for the future. Her focus on finding and celebrating the places that have innovated to address and mitigate climate change encouraged and inspired the young activists by emphasizing the potential for change, innovation, and progress in addressing environmental challenges. As well, she highlighted the impactful approach that had been taken in consciously supporting intergenerational connections and how much that combination of experience and initiative contributed to the development of hope.

The “Celebration of Learning” marked a pivotal moment to honour and showcase the remarkable achievements of the youth participants and educators involved in the project.

Elin articulated the connection between emotions and urgency, stating, “Those are the feelings we have and they are to be honored and respected. And I think the piece I wanted to add to that is that part of the reason we feel the way we do is absolutely because of the urgency of the issues we face.” Sonia underscored the significance of community action in responding to the human and environmental catastrophe of climate change and made the observation that community-led initiatives act as a magnetic force, moving towards a collectively envisioned better world. Furthermore, the importance of feeling part of a larger movement was emphasized:

“It’s really important to know that you’re a bigger movement that is making important headway. When you know that it actually exists in another place, then you can actually hold power comfortably and say, “I know what happens there, I demand that it happens here.” (Sonia Furstenau)

An educator likened the collaborative efforts to mycelium, highlighting the interconnectedness of values and the shared love for the world. Elin Kelsey stressed the significance of acknowledging and discussing a range of emotions in the pursuit of climate action, emphasizing the emotional fuel that propels determination, justice, and pride.

A student reflected on the enriching process of the project, appreciating the opportunity to hear diverse perspectives and expand their initiatives. Another student expressed gratitude for the cross-cultural learning experience with counterparts from PR, acknowledging shared challenges and the hope embedded in community building: “Just like what Sonia said, building strong community is fundamental to the fight against climate change. So I just want to say thank you. You’ve really opened my eyes that there’s hope for the future and there’s hope that what we do now will directly build a better livable future.” These quotes collectively capture the essence of the celebration—a recognition of the emotional landscape, the power of collective action, and the unwavering hope for a sustainable future.

The Celebration of Learning was more than just an event; it was intended as a testament to the power of youth engagement and education in driving climate action. It highlighted the achievements and potential of the younger generation, celebrated their commitment to positive change, and encouraged them to continue their vital work. This celebration was not just a reflection of the past but a call to action for the future, underlining the importance of sustained efforts in climate action.

2024: The work continues

With the relationships already in place at the beginning of the YDCR project it was also easy to make contact with the educators to understand their perspectives for next steps. What would be most engaging and useful for their pods? With those ideas in mind we were able to plan for sessions that were the right fit at the right time in the process of the projects. In addition, these relationships enabled and encouraged an inclusive design process to unfold while creating meaningful positive impacts in the communities and for participants. In this way, the relationships that were generated have continued, as have the conversations about ongoing processes in the communities.

As a result, another project, arising from that initiated in the small Indigenous community and the QSM Pod, located in the Whistler/Pemberton area, has now

begun. It is a continuation of a project begun in the first 2 years of the YDCR project, with an additional aspect involving food security. This continuation, made explicit through the first meeting with the school and the community, began with the showing of the documentary about the school's first project in YDCR.

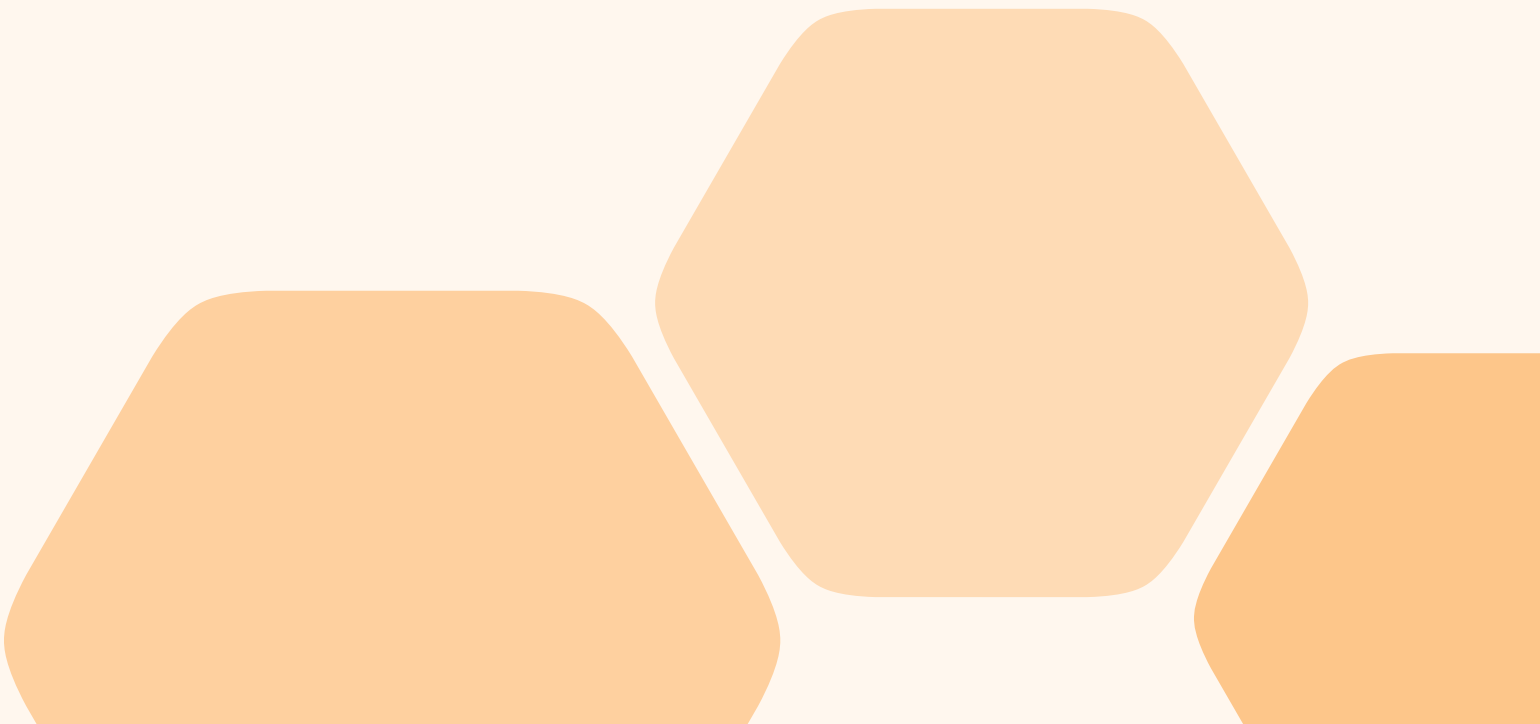
Through partnerships with the community outside that in which the school is contained, a connection between Whistler/Blackcomb and a salvage service provider, the removal of all remaining rusted cars will proceed, making it possible to reclaim that land and expand the community gardens. With the support of the educator leading the pod, the students have thought together, meeting with the adults and elders of their own community, and are documenting the project through photos, drawings and film.



// Building strong community is fundamental to the fight against climate change. So I just want to say thank you. You've really opened my eyes that there's hope for the future and there's hope that what we do now will directly build a better livable future. //



Applying YDCR at Q'aLaTKu7eM Community School





Applying YDCR at Q'aLaTKu7eM Community School

When The Cars Made Way for the Trees; A Design Thinking Process in response to Climate Change 2023-2025.

Reclamation, Greening and Growing

There is a community one hour down an active forest service road from Pemberton, BC where a small school, enrolling youth from Kindergarten age to Grade 12, is located. Part of two school districts, Sea to Sky #48 and Fraser Cascades #78, this 2024/25 school year, 8 students are enrolled. One teacher, who is also the Vice-Principal, and one Educational Assistant, as well as community members who teach culture and language and provide a hot lunch program surround the students with care and support.

In 2021, Q'aLaTKu7eM Community School became one of the "pods" in the Youth Designing Climate Resilience Project (YDCR) described earlier in this report.

When Jillian Fraser, their vice-principal and teacher explained that project, students brainstormed four possibilities for a climate action project that would be "place-based", guided by Indigenous ways of knowing and being and depend on a process of Design Thinking. When the vote was taken, the students chose, unanimously, to start a process to remove unused cars that had been collecting in the community.

When the original YDCR project was completed, along with some car removal completed, this pod was chosen to receive additional funding to support the students in their vision of continuing the process

of car removal that they had started. As community meetings got underway, students provided their ideas and listened to the questions, the advice, and the hopes, as well as the concerns of those attending, their parents, other family members and the community. As the meetings continued, it became clear that with the removal, it would become possible to reclaim those spaces and to plant trees where the cars had been. Support from and partnership with the community beyond, located in the Whistler/Blackcomb area has been a critical part of the success of the project.

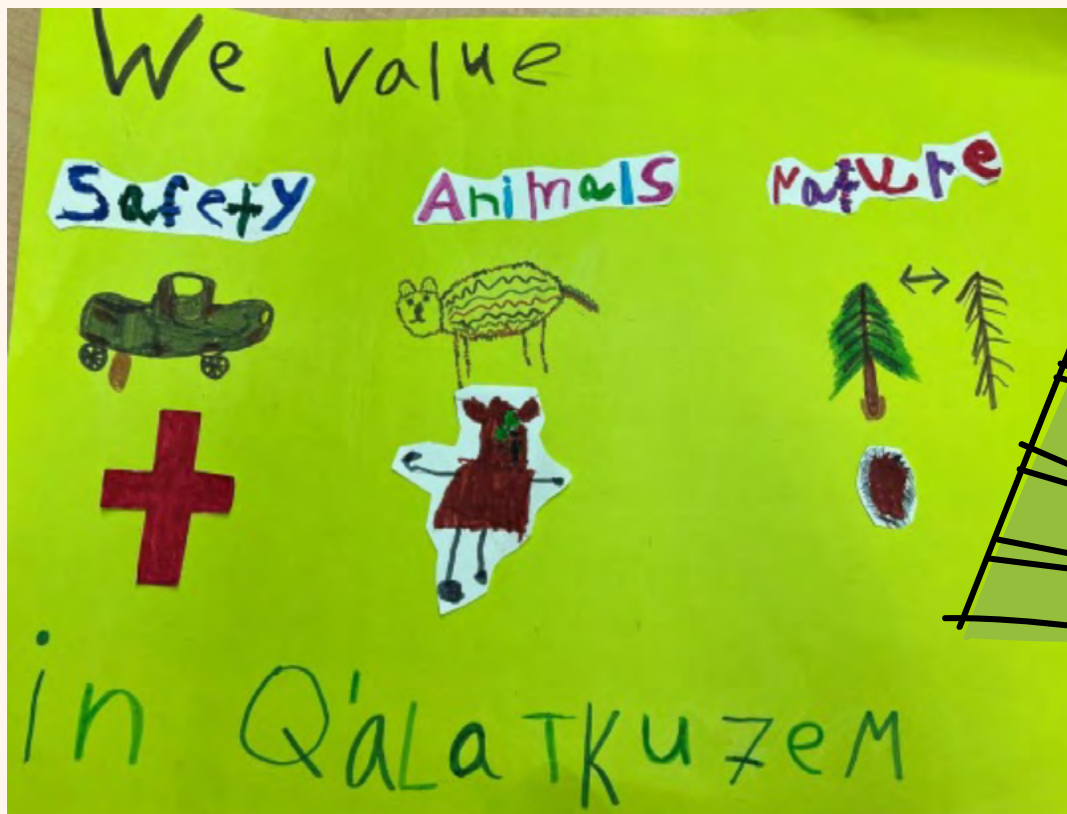
The Story

In keeping with the three foundational principles of the YDCR project, Place Based education, Design Thinking and Indigenous ways of learning and knowing, and in alignment with BC school curriculum, the goal for removal of cars and debris grew to become a goal to remove all, in order to create space for greening and growing. Climate change has brought an additional urgency to complete the removal process, given that the cars and debris are located in a flood plain where the huge increase of precipitation over the past year has intensified the potential for leaching of heavy metals and other chemicals into the soil.

The school initiated the “Empathize” phase of Design Thinking through “seeking to understand” without judgement. This involved gathering data and information in search of solutions and pathways for the removal of the cars.

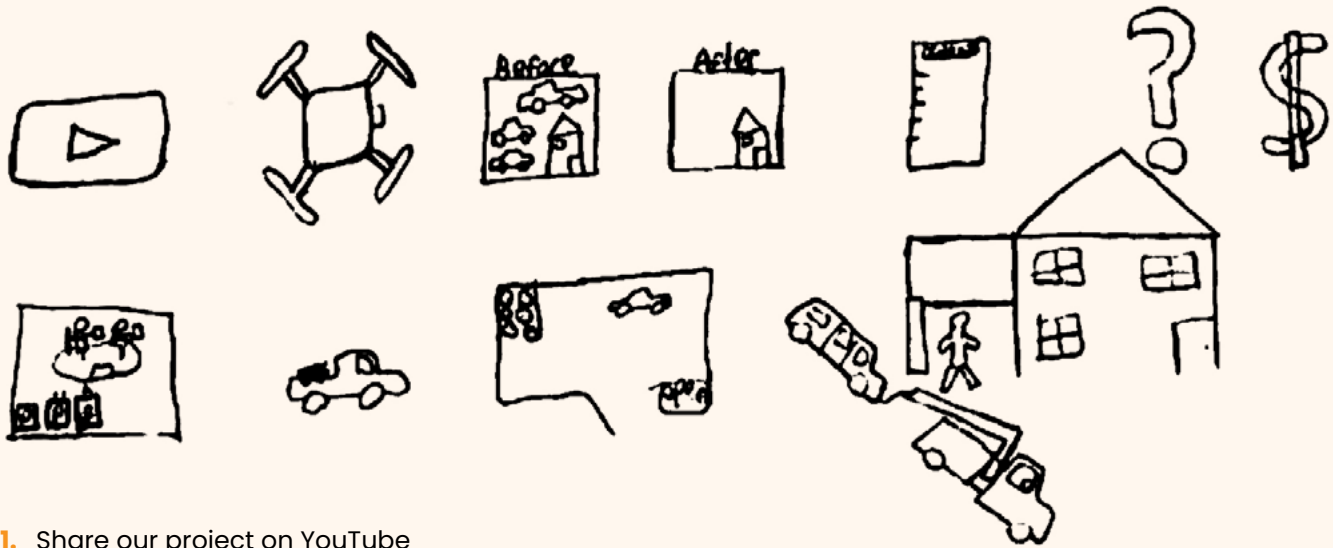


They expanded their vision of and knowledge about community involvement as well as understanding the process of engaging service providers to undertake the removal. As this process has evolved, they have been learning about how their own environment can be made more sustainable.



Discussions within the school among the students and the educators for this sequel project started in November 2023, considering options about what could happen once the land was cleared, as well as the best ways to go about reaching their goal.

Subsequently, contacts were made between the school and the outside community to find providers who could undertake the work of removal. Students were involved both in discussing how the contacts would be made as well as in reflecting on the results.



1. Share our project on YouTube
2. Do a drone photo of before and after the cars are removed
3. Create a summary of meeting and project notes
4. Question – Funding for contaminates
5. Environmental impact consideration – glass, fluids
6. Administration to look into a policy for uninsured vehicles on properties – Does this void insurance?
7. Hold a recycling information session for the community
8. Recycling bins needed for community homes
9. Recycle and garbage home pick up
10. Consistent and reliable hours for eco depot

At the same time, individual conversations with community members were taking place to develop mutual understanding of the challenges and benefits that would occur as a result of this initiative. As these conversations evolved, it became clearer that a more substantial and sustainable goal, given increasing precipitation and also that the community is situated on a flood plain, would be the planting of trees, to take place in the spring of 2025.

Environmental Concerns of Junk Cars

A car that sits for a longtime will start to rust and cause a corrosive effect that is a health hazard.

Coolant and other fluids, including engine oil, brake fluid, and any gas left in the gas tank, can leak from cars and contaminate groundwater while also endangering wildlife.

An abandoned car can provide habitation to rodents and insects, these living things can cause damage to properties.

Most people leave their junk cars unattended without proper disposal to decompose, but it can lead to some risks like rusted bits can be sharp and dangerous.

Junk cars leak more fluid than cars in use.

A car can take more than 500 years to decompose and is recommended to get rid of the scraps by having a car junk company.

Junk car removal is a way of avoiding damage to the environment.

The smallest amount of antifreeze can have a very harmful and often fatal effect on your pet. Thousands of animals (pets and wildlife) die each year from antifreeze poisoning.



Throughout this process, the students, both individually and as a group have been completely involved, learning about graphic recording to document the project, assisting with car removals once they occurred, sitting in circle to discuss and learn about how Design Thinking provides a good way for this process to unfold, hosting the team working to prep and remove the vehicles, and continually making informal connections with the community to hear any concerns and ideas that came up.

The removal of the cars, once a community meeting to provide project updates and open discussion for questions and contributions was held on January 24, 2024, began in earnest on February 5, 2024. Whistler Blackcomb Facilities, who was doing this work pro bono as a result of talks with Jillian, the VP and leader of this project arrived. Mike Dean, Senior Manager of Fleet Maintenance from Whistler Blackcomb, Vail Resorts had volunteered to come to Q'alaTKu7eM with a truck equipped with a crane in order to assist a single mother with removing the non operable vehicles on her property. The house had a septic issue requiring immediate attention and the access to pump out the septic was blocked by the numerous non operable vehicles. Mike assisted with the preparation and removal of the vehicles so that when the septic company arrived later that day they were able to access and pump out the septic tank.

Later in the spring, on April 5, 2024, A meeting to discuss the potential of policy for the process of removing junk cars was held with chief Brock Peters and the Housing Committee and later that month, on April 22-26, community members began to flag the vehicles that had been volunteered for removal. At that time, also, on April 25, Jeff from Richmond Steel, visited the community to assess the logistics of a crusher to be brought into the community and on May 3, meetings with Jody from Richmond Steel and Mike Dean resulted in the decision to move forward with the project in early June.

To ensure that this process had been agreed to in community, also in May, a further meeting with the Band Administrator and a community volunteer was held to

provide updates, any questions or concerns that had come up and to plan for a meeting with the community as a whole.

May 6 stood out as an important day for the project as on that day, Photographer and Filmer Matt Bruhns was asked to assist with documenting the project which would involve interviewing a number of those involved in making it happen, both in and outside community. Also on this day, a group chat with Mike Dean, who was in charge of vehicle prep and Sandy from Lizzy Bay Logging, made plans to arrange for a donated loader with forks to be used to move vehicles.

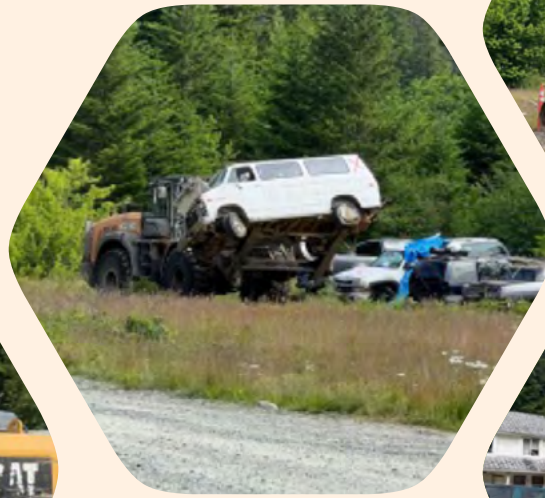
On June 7-8, 2024, Mike Dean and the Whistler Facilities team along with Lizzy Bay volunteers and equipment, began moving vehicles to a designated area to drain fluids and on September 19-20, 2024 Mike Dean and crew returned to finish moving vehicles and draining fluids.

The school, in carrying out this project, has held the involvement and engagement of the people and families who live in this community as a foundational principle throughout this process. For one thing, having strangers coming into their community could have been disruptive and the students wanted to minimize that as much as possible.

The community outside the village has rallied to provide support, often donated, to support the school and the community in actualizing what they imagined could happen and even beyond. And in creating a partnership with the community outside of the village, ALL of the cars were removed with all debris removed at no cost.

Starting with this small group of students who wanted to see the cars gone so that healthier things could happen in that space, reaching out to their parents and community to ensure understanding and approval, the students, with Jillian's leadership, have conducted individual conversations, community meetings and action.

An unexpected, and hugely welcomed outcome is that Richmond Steel who was able to use the metal from the crushed cars, returned \$18,566.00 to the individual owners of the cars in community. With this money Jillian learned that one family was able to repair their vehicle used for assisting community members with groceries and medical appointments. While others were able to take care of other bills.



Above photograph included with special permission.



The Design Thinking process has been a guide to all of the thinking, planning and acting that has and is occurring at this time.

Empathize:

- Understanding the land
- Speaking individually with community members to understand their hopes as well as the barriers faced in carrying this out.
- Hosting a community discussion meeting to determine the assets in the community, as well as the potential barriers that are part of current facilities and systems to work towards a whole community solution of regular garbage and recycling removal from properties as well as what kinds of plants they would like to see in the space.
- Seeking to understand the assets and challenges involved in initiating the greening and growing phase of this process.
- Employing non-judgmental processes for listening and understanding in order to engage the community in undertaking something new and extensive.

Define

- Included here was the process of recalibrating in relation to what they heard from the community.
- Decisions were made regarding who does what as well as how challenges that were known, were overcome.
- Tow truck services were contacted for quotes for a solution to ongoing disposal of old vehicles in a remote community (involving emptying oil, crushing cars and removing the resulting glass and metal).

Ideate

- This phase was interconnected with that above in coming up with ideas that may not have been considered before, as a result of the conversations and learning that had occurred so far, using a “yes, and...” approach.
- Priorities were determined, through holding another community meeting to engage families in thinking through the foods that will be preferred and the plantings to make those foods possible. With a subsequent community meeting, further recalibrating occurred with a community decision that they would prefer to plant trees, rather than gardens.

Prototype

- Students presented environmental data and Youth Values of their cohesive community vision to their community again and requested that community members sign up to have the junk cars and recyclable materials removed.

Test

- Students engaged in reflection and record-keeping activities along the way, either visually or in text, to document processes and findings of their climate mitigation, food security, and community enhancement initiative.



Another celebration was held on Friday, October, 11th, 2024. Jillian was named at a day long ceremony in community, with elders from community and farther out, her parents from Ontario, her partner and friends. Her Indigenous name is the translation of Bright Eyes. Drumming, dancing, a fire, feasts and blanketing all were part of what she reported to be the most significant day of her life so far. Of course, she is being honoured for her work there as VP, and what she has done for and with kids and community, much much bigger than the YDCR project, but when she was driving one of the most honoured elders to the event, she told her about the project and this elder who is a language speaker and an amazing woman said she wanted the same thing to be done at the treasured farm where she and her siblings lived before the community was built and children went to residential school. Huge huge moment for Jillian to know that this work will have a sequel that the school will make into a project.

The planting of the trees will begin in the spring, with the rehabilitation of the land done by then.

The documentary is to come in 2 phases, the first with removal of the cars and the second to document the process to begin and complete the tree planting.

Much appreciation to the community, Band Administrator Clara Smith, And Christina Smith, Community Champion and Chief Brock Peters, whose for their support of the students in their learnings and in the actions they took. Chief Peters' comments below, are an emblematic testament to this support.

Thank you also to those outside of the community who helped make this happen, sometimes on a volunteer basis: Jody Dawson of Richmond Steel; Jeff from Statland Enterprises; Mike Dean of Whistler Blackcomb Facilities and Lizzy Bay Logging.

And many thanks to Resilience by Design at Royal Roads University for making it possible for the funds remaining from the Youth Designing Climate Resilience research project to be used to support the continuation of climate action at Q'aLaTKu7eM Community School.

The fundamental question that initiated the Youth Designing Climate Resilience Project was: Will youth, as a result of their involvement in climate action guided by Design Thinking, Indigenous ways of knowing and being and place-based learning feel a greater sense of efficacy and confidence in taking future climate action?

This story is the answer.



And from Chief Brock Peters:

As the Chief of our proud community, I am honored to commend the youth of Q'aLaTKu7eM Community School for their extraordinary commitment to improving our land and honoring our values. Under the guidance of dedicated educators and with the support of the community, the students at Q'aLaTKu7eM Community School led an ambitious project to remove 100 junk cars from our small community. This effort not only cleared the land but also brought our people together, reuniting generations in the common goal of greening and revitalizing our environment. The youth demonstrated remarkable leadership, resilience, and unity in the face of a daunting task, all while

staying true to our core values of respect for the Earth, sustainability, and stewardship. Their work has had a transformative impact on our community—helping to restore the natural balance, reclaiming spaces for future growth, and reflecting our deep connection to the land. I am immensely proud of our youth and the staff at Q'aLaTKu7eM Community School, whose shared vision and hard work are shaping a brighter, healthier future for our people.

This initiative serves as a powerful reminder of the strength we have when we stand together in service of the land, our culture, and the generations to come.



// Their work has had a transformative impact on our community—helping to restore the natural balance, reclaiming spaces for future growth, and reflecting our deep connection to the land. //



Reflections and Lessons Learned

Educator Reflections

As part of the project educators were interviewed near the end of their participation. They were asked the following questions:

- 1 To what extent has it been possible to engage students and generate follow through on climate action initiatives?
- 2 What challenges are faced in engaging students and generating follow through?
- 3 What are the most important things in initiating a place based climate action initiative?
- 4 What impact do you perceive this work having on your students?
- 5 Do you have any recommendations for improving the resilience of youth in the context of climate change?

Out of these questions the following themes emerged. As the pods were meant to respond to place based learning the educators' approaches to enacting climate action initiatives were also unique in responding to place. This becomes evident in their reflections summarized below.

Engagement

One pod of educators shed light on engaging students in climate action projects through climate action clubs. The educators emphasized the existence of environmental action clubs or teams that enabled the initiatives to get off the ground quickly as the groups were composed of dedicated students. One educator explained that "the group of students that we have right now have been willingly, very engaged." The involvement stems from the students' intrinsic motivation to contribute to environmental causes.

Two other pods were able to integrate climate action initiatives into the school curriculum and courses to reach a larger number of students. Educators

were also able to integrate design thinking into their core courses. One educator emphasized the importance of dedicating class time and the focused effort to connect the project directly to the students' community, stating, "the initiative has been very possible because I dedicated a lot of class time to the project." Educators mentioned overlaps in current curriculum like environmental science courses which may provide a potential avenue for broader participation.

It was the hope of several educators and students involved in the YDCR project that environmental science and climate change curriculum evolve across BC to support youth in navigating this new reality.

Community Involvement

Community involvement is highlighted as a significant factor contributing to the success of place-based climate action projects. Educators stressed the importance of having adults, community members, chief, and council support the work. Presenting students' work at a community meeting and receiving positive feedback from adults is recognized as a motivational factor for students to continue their leadership roles. Levels of community engagement varied across pods from minimal community involvement to deeply embedded community projects. However in each pod the surrounding community played a role in enacting their climate action initiatives.

Challenges & Impacts

Educators highlight time constraints as a significant hurdle, given the extracurricular nature of their efforts. Limited meeting frequency and the busy lives of senior students contribute to this challenge. Educators also highlighted the heavy task which the students must take on in grappling with the scale and impact of climate change. This task is difficult both

in understanding the technical knowledge of climate science but also in moving through the emotions like climate grief and anxiety. Educators noted similarities between their initiatives and the initiatives underway in PR. This unexpected alignment highlights common global concerns and the universal nature of environmental challenges. Challenges in maintaining engagement are acknowledged, with educators recognizing varying interests among students and the importance of connecting with the broader school community.

When reflecting on the impact of their work on students, educators emphasized empowerment, stating, “The biggest impact is just the empowerment that they experience.” The students derive pride from tangible outcomes resulting from their initiatives, often incorporating their efforts into capstone projects and scholarship applications.

Educators made it clear that the impacts of these climate action initiatives were beyond the physical changes that had increased the awareness, motivation and confidence of youth to take action on climate issues. One educator highlighted this positive influence, stating, “I think it is huge in having them have that sense of advocacy, and pride, and being able to make such a difference in their community”

Not only did these projects impact the students, they also had a community impact, the educators highlighted the students’ goal to extend their focus beyond the school. Many of the initiatives formed collaborations with external organizations fostering a sense of community engagement. This community engagement provided students and community members with a broader perspective on environmental issues. One educator reflected that “When the students presented their work at the community meeting to see the reaction and the feedback from the adults in the community, just being so in awe of the youths’ engagement, passion and work that really added an extra level of motivation for the students to continue in a leadership role.”

Educators reflected on the positive impact of the YDCR Project to create a collaborative platform,

emphasizing the importance of building connections and facilitating deeper conversations among students engaged in climate action. This perspective, articulated by the educators involved, is also a strong undercurrent in the foreword, written by student Joel Sagar at the beginning of this book, recounting his experience in the YDCR project.

Core Team Reflections

In essence, as we reflected on what we learned, it was important to consider whether our foundational principles: Design Thinking, Place Based Education, and Indigenous Ways of Knowing and Being held through. These were our initial and overriding intentions. How well were they enacted? Were they pervasive? Did they form a common language amongst all participants? Would an outsider observing the process see these foundational principles as being explicit? The answer to all these questions would have to be, yes, to an extent, although these outcomes were not as strong or clear perhaps as we originally intended. Although the project was conducted according to these principles, had the lexicons of all three been more repeatedly referenced in comments and questions, perhaps they would have been more pervasive and observable. A future similar project would benefit from more conscious attention to employing these vocabularies.

Meta Level Reflections

1 Integrating multiple levels of design thinking presents challenges and opportunities.

This was not a linear process. There were multiple levels of design thinking happening all at once. As we defined, gathering feedback and building prototypes, we were constantly building on our relationships and empathizing to ensure we identified and addressed new needs and issues. Design thinking was embedded throughout all levels of this project from the initial proposal all the way through to the creation of this project narrative.

That is not to say that this process alleviates all challenges, one of the main challenges faced was the timeline that design thinking takes to implement at

multiple levels although, this became an advantage when two of our educators changed roles. One of the educators became a superintendent and thus was able to communicate the project to all levels of the system, school, district and Board of Education and therefore create significant support going forward, while another educator moved from the classroom to a district position and although she was not working directly with students, stayed involved in an advisory role. Design thinking provided us with frameworks and tools to adapt to these challenges in significant ways in terms of connecting with an already established organization.

- Spending empathizing time with that network to determine goals, collaborative approaches, including time for meeting to recalibrate.
- Attending to the kinds of communicative skills needed for collaboration and making time to build those into meetings
- Making meeting time whether with students or your network doable but sustainable and regular, within or outside of a classroom
- We tried to find a way for this work to support what was already being required of students. Capstone? A curriculum area? In this case, the students were willing to put in extra time outside of class.
- We found that very carefully constructed interactions in the Wisdom Circles contributed to a high level of engagement. The processes used in Wisdom Circle 1 were an example of that. In a future YDCR, if such occurs, we would use these processes as “lesson” plans in a climate action unit incorporating design thinking.
- In all cases, the community both in and outside of the school was the “curriculum”. All the projects began with students “noticing” what they would like to change, then empathizing with those involved to make decisions about next steps. We believe that allowing the time for this to occur was fundamental.

2 Relationships matter.

It became apparent that relationships would play a key role in initiating and sustaining the YDCR project.

Previous projects with the intention of working with K-12 educators and students found barriers to engagement coming in the form of lack of time or interest from educators and superintendents. When one of the core research members with connections and relationships from working in the school system reached out, things changed. These prior relationships provided a foundation and accessibility which launched the project.

This research had always been intended to be based in the participatory action research methodology providing us a framework to engage educators and students in a meaningful way both in the creation of the research and in the collection of data. In comparison to traditional forms of research this methodology moves from an extractive and cold space based on objective truth surveys and quantitative data to a place of openness of collaboration and qualitative data. From this place we were able to engage educators to gather ideas and address challenges they were facing. Our core team needed to keep these relationships front of mind throughout the process to garner engagement in the entire process and beyond as these relationships continue beyond the life of the YDCR project.

Affiliation

It was much easier for youth to get involved in a pod if they were already involved in a group working on climate or environmental initiatives. One Pod had an environmental club facilitated in partnership with a community youth support worker who already had regular meeting times and community engagement. Another Pod also involved an environmental club which had been running for several years supporting and enabling students to take on projects. These structures provided an opportunity to develop students’ capabilities, skills and confidence in climate action. The students involved had progressed with the club learning new skills and growing confidence to support them in taking on projects while helping to ignite pathways for future careers. Succession was top of mind for many of the club members, they understood that their current projects would only be successful if the next group of students were capable of inheriting and growing the projects. Similar to recruiting for this project the students shared in wisdom circles. In many cases a group of their friends were invited to join the club making it an important bonding opportunity and reducing the barriers to participation.

It became apparent throughout the project that there were differences in the level of initiative between students who were part of these environmental or climate clubs vs. the students taking this on with teachers direction. There was also an age difference so that could account for some of the added initiative.

Intergenerational Collaboration

From the foundation of this research there was a sentiment of intergenerational collaboration. This collaboration became evident in the lead facilitators' roles and ways of working and developing the project. It was also evident in the lack of hierarchical conversation as well as the equal space granted for all ideas and perspectives between all participants of the pods. It is the combination of participants' willingness to collaborate beyond roles and hierarchies and the research structure that allowed for deep synergies. These synergies could have been eroded by staying within roles like educator and student and by conforming to the hierarchy that can come about with age difference.

3 Both Structure and Process matter.

"The architecture of a building does not always determine what goes on within the building but it does provide the framework for what is possible" (Irene Corman 2024)

It is with this thought that we developed this research project, We developed a framework and intention in collaboration with educators however that framework acted only as the building or boundaries from what was possible. Once in the unfolding or enacting of the project we constantly attended to the needs of all participants as well as our hopes and intentions for the new understandings that could occur. It was important to remain dynamic in our enacting of the project as the participants were facing a range of conflicts and emotions as climate change unfolded in front of all of us. We understood that what was needed from the facilitators was to create the conditions that would balance challenge and support. It is within this balance that participants were able to build on their efficacy and sense of agency.

4 Where students are at in their own journey with climate change matters.

As has occurred during this SARS-COV2 pandemic, there are multiple ways of responding to events that can cause feelings of fear and/or threat: from denial, with behaviour that does not adapt to the situation and in fact may exacerbate what is occurring, to awareness that is based on current science, resulting in adaptation and action. The students who were involved in YDCR were all on the adaptation/action end of this continuum. A future inquiry that seeks to uncover what the reasons are for these students to think and feel in this way, to act in this way, would be a worthy endeavour.

What we noticed in all of the students involved, were the following qualities and learnings:

1. Interest in the world outside of their classroom, school, family and circle of friends
2. An ability to communicate with adults in a clear, informed and thoughtful manner
3. A realization that they had a role to play in trying to ameliorate the effects of climate change and becoming involved in ways to take action. That taking action was not only a way to try to intervene in the trajectory of climate change, but also, a way to channel their own inevitable emotions in observing climate events.
4. A realization that some trusted and respected elders were not interested in supporting their efforts
5. That the structures of bureaucracy were impediments in many ways, to the actions they wished to be taking
6. That as much as they wished to take action with the support of those in power, access was difficult and learning how to gain access was valuable

These youth were an inspiring, intelligent group, from various locations in BC, all of whom embodied the qualities of compassion, empathy and intelligence that one wishes for in future leaders. It was an honour to work with them.

5 Collaboration and Community are Essential.

We had started this research with the intention of providing tools, models, and funding to support youth led climate action initiatives. We believed that it was the competencies and tools that would provide the deepest value in helping to support youth and educators to take on more climate initiatives and address key challenges in their communities. What we found was that these tools and models may have enabled the youth in their action project but there was a deeper value in our project process. This value lay in community and affiliation.

A community of educators and youth who were able to connect on meaningful change, emerged. Within this community they were able to share emotions, aspirations, and challenges and feel supported. They were able to hear that others were facing similar issues and feelings. They were not alone.

Networks, so prevalent now in moving forward in any aspect of social change, are, in our opinion, another word for community. We believe that if there is to be a sustained and sustaining approach to climate action, that the basis for this is to build a conscious community. This does not happen with people simply coming together with a common cause. There are skills involved in building a conscious community and attending to those as well as to the goals to be reached, is essential. If this project were to have been continued, we would provide additional support for extending the work in greater collaboration and partnership with the community outside of the school.

Considerations & Recommendations

Although this research was not intended to provide educators with a “how to” we felt that there could in fact be information that could assist teachers as they found ways to build on the curriculum intentions in their subject area or in their work with students outside of the classroom in areas that call for climate action.

Teachers employ a range of engagement strategies as part of their professional approach to teaching. What we found, although particular to the situation in which we were working, may have some relevance for them as well.

- Starting with momentum - We found (through the educators) the students already thinking about and caring about climate change or, who were connected with an already established group or club were the ones to begin with. Friend groups for affiliation was a strong motivator.
- Building a Network - For educators, finding those who are thinking and caring Spending Empathizing time with that network to determine goals, collaborative approaches, including time for meeting to recalibrate.
- Attending to the kinds of communicative skills needed for collaboration and making time to build those into meetings
- Making meeting time whether with students or the network doable but sustainable and regular, within or outside of a classroom
- We tried to find a way for this work to support what was already being required of students. Capstone? A curriculum area? In this case, the students were willing to put in extra time outside of class.
- We found that very carefully constructed interactions in the Wisdom Circles contributed to a high level of engagement. The processes used in Wisdom Circle 1 were an example of that. In a future YDCR, if such occurs, we would use these processes as “lesson” plans in a climate action unit incorporating DT.
- In all cases, the community both in and outside of the school was the “curriculum”. All the projects began with students “noticing” what they would like to change, then empathizing with those involved to make decisions about next steps. We believe that allowing the time for this to occur was fundamental.

Questions for future inquiry

1. What could have intensified and extended youth and educator involvement?
2. What could have increased engagement with indigenous ways of learning and being?
3. What could have increased community relationships?
4. What could have increased the number of educators involved?
5. What could make it less difficult for educators and youth to participate in climate actions?
6. Other than educators and community what supports do youth need to face the emotions evoked from climate change?



Not only did these projects impact the students, they also had a community impact, the educators highlighted the students' goal to extend their focus beyond the school.

Thank You's

We owe a huge debt of gratitude to all of the educators, some in the classroom, some in the community, some in administration but all who are leaders, who contributed their time, their thinking, their teaching, and their wisdom to this project, those who stayed with it to the end, as well as those who were with us for part of it. You helped shape the design, you supported students, and you made a difference to the way the project unfolded. To: Serena Allison, Dawn Anderson, Ainslee Arthurs, Vivian Collyer, Jillian Fraser, Jeff Hopkins, Roberta Kubik, Sean Murray, Jennifer Watson, and Lori York, thank you!

A big thank you also to Nicole del Negro, who so skilfully captured several of our Wisdom Circles in visual form; to Anna Lunario Lang for her creativity and technical expertise in building our guidebook and infographics; to the wonderful community of experts who graciously gave their time, knowledge, and stories throughout the process; to Lab Team support member, Michelle Hamilton-Page, and to communities that surrounded each pod for supporting their educators and students enabling them to take action. And thank you to Susan Crichton, Educational Consultant Emeritus Professor, who participated in the shaping of the YDCR proposal, sharing her expertise in DT, education, and program development.

Thank you to our incredible collaborators from Puerto Rico; Maggie Favretti, Eduardo Lugo Hernandez, Pamela Silva Diaz, Gabriela Alexandra Otero Andino, the PR Educators, students, and community members. It was a pleasure to work and learn alongside each other and build connections that will continue beyond this project.

The most significant thank you however, is to the youth who participated in YDCR – all the students who are so thoughtfully responding to what they see in their “place” even while they navigate the sometimes overwhelming business of their school and personal lives. Their involvement in YDCR was both invaluable and inspiring, and we

hope that with that, they gained insights and experiences that provide benefit both for them, and for future work in keeping our planet healthy and habitable. They are the hope for the future.

Finally, a shout out to the Social Science and Humanities Research Council of Canada Insight Grants program for finding this research project compelling enough to provide funding support. It is our hope that the findings that have been generated with the process that we conducted, provided learning for all of those involved as well as for those who will read this project narrative.

BC Core Team members:

Irene Corman

As a settler who came to Canada as a child in a family who fled Russia and moved to China where I was born, I am grateful to have been able to live, learn, work, and raise my own children on this unceded territory of the Lekwungen speaking Peoples, the Songhees and Esquimalt Nations. Their stewardship of this territory over centuries till today is something I appreciate and have attempted to properly honour in this Youth Designing Climate Resilience project.

As a teacher, school principal, University of Victoria sessional lecturer, Provincial Coordinator with the Ministry of Education, Associate Superintendent of Schools in Greater Victoria and now as a facilitator and advisor to this project, my abiding focus has been to create the conditions for dialogue and new mutual understanding in the groups with whom I work, whether they are youth, educational leaders or professionals in other walks of life. The potential of generating new understandings through Design Thinking that could lead to youth feeling a sense of confidence and efficacy to undertake climate action drew me to become deeply involved in the “design” of YDCR, as well as throughout its life as a co-facilitator

and member of the Core Team and co-writer of this narrative. I hope that our collective work can be helpful to others who are generating and acting on ways to enhance climate resilience.

Robin Cox

I am a settler with ancestral roots in England and Scotland. I am privileged to live and work on the unceded land and waters of the Lekwungen-speaking Peoples, the Songhees and Esquimalt Nations, known in colonial terms as Victoria British Columbia. In my work as an educator and researcher at Royal Roads University, I am committed to advancing climate action leadership and climate justice through education, research, and advocacy for nature and all living beings. My work draws on design thinking and open-learning principles and approaches, and my background as a Counseling Psychologist and an actor. As the Director of the Resilience By Design Lab I have worked and continue to work with amazingly talented and passionate adults and youth, to lead the design and implementation of initiatives that include an innovative open-learning Graduate program - the M.A. in Climate Action Leadership (Royal Roads University- RRU); the Climate Action Competency Framework- a comprehensive articulation of the competencies needed for climate mitigation and adaptation; the Creative Action Research approach, and a range of articles and webinars.

Austin Lang

With roots from England, Denmark, and Germany I am of settler origin. I now call Mohkinstsis (Calgary) Home. In the spirit of reconciliation, I acknowledge that I live and work on the traditional territories of the Blackfoot Confederacy (Siksika, Kainai, Piikani), the Tsuut'ina,lyarhe Nakoda Nations, the Otipemisiwak Métis Government of the Métis Nation within Alberta District 6, and all people who make their homes in the Treaty 7 region of Southern Alberta. It has been my great honor to move through the world as a human among non-human relatives, plants, rivers, and animals that make up earth's ecosystems. I am a student, educator, entrepreneur, videographer, and sustainability professional. I played the role of Research assistant and co-facilitator for the YDCR project. It was a privilege to work alongside the incredible educators, students, researchers, and collaborators. Together we created more than the sum of our parts. It has been a pleasure working on the YDCR project and I hope that many more can absorb insights and joy from this work.



Addenda

- I. Collaborating for Climate Action (https://drive.google.com/file/d/1fRqpL5IhjuNVVU2OiqeODEM01BNGIFzy/view?usp=drive_link & https://drive.google.com/file/d/1n5237ciW4loz1BnF7TCvKiZ95bIOP-g2/view?usp=drive_link)
- II. Resource Repository (https://drive.google.com/drive/folders/1lzIFpo_s07RSJoGGT9i0sFG_AmOwBcB6?usp=drive_link)
- III. Invitation Guidebook-used to inform and invite Pod members (https://drive.google.com/file/d/1NOgwLFLnzQfho0ailG_k-I9by0SKK9hy/view?usp=drive_link)
- IV. Royal Roads article-Richard (<https://www.royalroads.ca/news/how-bc-kids-are-connecting-puerto-rican-peers-climate-action>)
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