

# Land2Lab Project: Reflections on Learning about Mi'kmaw Foodways

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## ABSTRACT

Land2Lab is an evolving community-based intergenerational program that brings together Elders and youth on the land and in the kitchen and lab to share and celebrate Mi'kmaw foodways. Rooted in an *Etuptumuk*-Two Eyed Seeing (E-TES) perspective, which acknowledges both Indigenous and Western ways of knowing, the project to date has featured seasonal food workshops, involvement in a children's summer math camp, a food safety training workshop for teens, and the development of an online toolkit. The project was guided by the Mi'kmaw principle of *Netukulimk*, which reinforces respect for Mother Earth and stewardship of the land, water, and air for subsequent generations. Involvement of community leaders has been key to successful planning and implementation. While technology plays an important role, lessons learned on the land are critical and will inform efforts to include language and ceremony in future programming. Dietitians are encouraged to support Indigenous-led land-based learning in support of the profession's commitment to reconciliation.

**Key words:** Mi'kmaw foodways, community-based programming, intergenerational learning, land-based learning, *Etuptumuk*-Two-Eyed Seeing, technology.

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## RÉSUMÉ

Land2Lab est un programme communautaire intergénérationnel en constante évolution qui réunit des Aînés et des jeunes sur les terres, mais aussi dans la cuisine et le laboratoire, afin d'échanger et de célébrer les habitudes alimentaires des Mi'kmaq. Ancré dans la perspective du *etuptumuk* (la perspective du double regard), qui reconnaît à la fois les modes de savoir autochtones et occidentaux, le projet a jusqu'à présent donné lieu à des ateliers sur l'alimentation saisonnière, à une implication dans un camp d'été de mathématiques pour enfants, à un atelier sur la salubrité des aliments destiné aux adolescents et à la création d'une boîte à outils en ligne. Le projet a été guidé par le principe mi'kmaw du *netukulimk*, qui renforce le respect de la Terre mère et la protection des terres, de l'eau et de l'air pour les générations à venir. La participation des dirigeants de la communauté a été la clé d'une planification et d'une mise en œuvre réussies. Si la technologie joue un rôle important, les enseignements tirés sur les terres sont essentiels et permettront d'intégrer la langue et les cérémonies aux futurs programmes. Les diététistes sont encouragés à soutenir l'apprentissage sur les terres mené par les Autochtones afin d'appuyer l'engagement de la profession envers la réconciliation.

**Mots-clés :** habitudes alimentaires des Mi'kmaq, programmes communautaires, apprentissage intergénérationnel, apprentissage sur les terres, *etuptumuk*-perspective du double regard, technologie.

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## INTRODUCTION

Publication of the Truth and Reconciliation Commission Report in June 2015 [1] brought overdue attention to the need for health professionals to take definitive steps to ensure healthcare practices are respectful and inclusive of Indigenous cultures. Call to Action #22 calls upon "*those who can effect change within the Canadian health-care system*" to recognize Indigenous healing practices and collaborate with Elders and Healers to offer Traditional approaches [1]. For dietitians, understanding the connections between the land, food, and health is fundamental to culturally meaningful practice. The purpose of this paper is to share an intergenerational land-based food program that honours Mi'kmaw knowledges to promote health, protect the land, and celebrate culture.

## About us

We are a group of three women exploring the relationship between food, health, and the land from Mi'kmaw perspectives. Our journey began when Kara, a member of Paqtnkek Mi'kmaw Nation, reached out to youth in her community as

part of a nutrition project in one of Ann's classes at St. Francis Xavier University (StFX). Ann, a settler ally academic, was inspired by Kara's suggestion to develop programs for youth that celebrate Mi'kmaw food knowledge. With support from local communities, and Kara's employer at the time, the Confederacy of Mainland Mi'kmaq (CMM), the Land2Lab project was born. Renee, a dietitian with ties to the land through her father's friendly relations and upbringing in Eel River Bar First Nation, and graduate student studying Indigenous food sovereignty, joined in. Together we have learned much from Elders, Knowledge Keepers, community members, youth, and each other, not only about food but also about the multiple ways the land is a determinant of health [2, 3], connecting us to one another and to the air, water, and ice that sustain us all.

## The Land and Health

Indigenous cultures and knowledge systems are influenced by and rooted in the land. This is reflected in language, story, art, and ceremony [4] and includes the way health is understood.

Indigenous concepts of health promote a balance between the physical, mental, emotional, and spiritual dimensions of life, where wellness extends beyond the individual to include relationships between families, communities, ecosystems, and ancestral ties connecting past, present, and future generations [5, 6]. Readers are encouraged to visit the Mi'kmawey Debert Cultural Centre website (<https://www.mikmaweydebert.ca/>) to gain a deeper understanding of Mi'kmaw culture, language, and land connections.

## The Land2Lab Program

Land2Lab is an intergenerational program that connects Mi'kmaw youth to their ancestral foodways. The concept of *Etuaptmumk*-Two Eyed Seeing (E-TES) [7] informed the way the program was developed and implemented. *Etuaptmumk* is the Mi'kmaw word for “the gift of multiple perspectives” and is a Mi'kmaw guiding principle that was translated and introduced to the academic community as Two-Eyed Seeing by Elders Albert and Murdena Marshall, with Dr. Cheryl Bartlett in Unama'ki (Cape Breton Island) [8]. E-TES is put forward as a way of viewing the world that respects both Western and Indigenous knowledges and encourages Indigenous and non-Indigenous peoples to work together through a process of co-learning [7–10]. Importantly, E-TES offers those with a Western worldview a chance to critically look at their understanding of the world, by learning about Indigenous knowledges with the commitment to uncover biases often inherent in Western ways of knowing [11].

The planned program featured four seasonal workshops in which Elders and Knowledge Keepers would lead youth on the land to share knowledge and skills such as gathering berries and medicines, fishing, foraging, and planting. The group would then meet in a community kitchen to prepare food and eat together. An additional component was to provide youth with practical skills that would support securing part-time jobs in the food sector and to introduce laboratory experiences so they may see links between Mi'kmaw and science teachings. The objectives of the program were to:

1. Provide a vehicle for intergenerational knowledge sharing of Mi'kmaw food practices.
2. Provide youth with employable food skills.
3. Explore the potential for E-TES as a lens for sharing both Indigenous and Western food knowledge.
4. Inspire youth to see themselves pursuing careers related to food, science, and environment, which respect Indigenous ways of knowing.
5. Identify how land-based learning contributes to achieving these objectives.

Unfortunately, COVID-19 pandemic related public health measures began just after the first winter workshop took place. Since we were never sure when lockdowns would start and end, we decided to hold workshops whenever we could, regardless of the season. It also meant that Elders were not always available to participate, requiring other means of

obtaining their expertise such as written resources and videos [12]. Table 1 provides an overview of the community workshops, math camp, and food safety workshop offered, where they took place, and who was involved.

## Intergenerational land-based activities and workshops

The first event was a 2-day experience that started in the community gym where a Knowledge Keeper taught the youth to make fishing spears from poles of black ash that they would use to spear *kat*, as it is known in Mi'kmaw, or American eel [13]. A week later he guided us across the frozen harbour where we learned to saw circular holes in the ice. Other fishers used electric saws to make square holes, but our Knowledge Keeper demonstrated how the circular holes carved manually were more conducive to the motions of our spears [6]. We offered thanks to the creator with a gift of tobacco and after working for 2 hours, we experienced our first catch. Many people from the community joined in, and the Knowledge Keeper reminded us of the principles of *Netukulimk* [14].

There is no direct translation for the word *Netukulimk*, but it is an essential Mi'kmaw way of being that refers to the concept of respecting what Mother Earth gives us and taking only what we need to ensure enough for the next generations [14]. Through our tobacco offering we looked to the creator with gratitude to provide us with what we need for nourishment, physically, emotionally, and spiritually. Tobacco has long been considered a sacred medicine by Mi'kmaw peoples, and a means of carrying prayer to the spiritual world [15]. We also gifted an eel to the circling eagles after the first catch – an acknowledgment of the interconnectedness of species and the need to sustain all. We saw parents guiding their children to handle the eels with respect and to appreciate the sustenance they would provide. We were further reminded by the Knowledge Keeper that climate change was interfering with the harbour freezing, delaying, and shrinking the ice-fishing season more each year.

We had planned to use our catch to create a feast for the Elders the following weekend; however, COVID-19 lockdown restrictions ensued a few days later. The next few workshops took place in between lockdowns, in the community centre kitchen, according to public health protocols, and reflecting the season at that time.

## Math camp

We also partnered with the StFX Math camp to host a 1-day workshop for Mi'kmaw youth from three communities. The goal of the summer camp was to show Mi'kmaw youth, in a culturally meaningful way, how math is connected to their daily lives. Leaders of the camp approached us to create Mi'kmaw food activities that engaged the youth in applying math and science skills. This event began with an Elder-guided nature and history walk and was followed by jam and *luskinikn* (bannock) making at the university food labs, along with opportunities for the youth to participate in tasting panels and

**Table 1.** Land2Lab workshops.

Workshop	Time of year	Participants	Location
Ice fishing for eel	February	Knowledge Keeper Youth Other community members	Day 1 – Community gym where Knowledge Keeper taught youth to make fishing poles from black ash Day 2 – frozen harbour
Blueberry jamming	Early September	Youth Land2Lab leads	Community kitchen
Three sisters' soup: The synergy of corn, squash and beans	October	Youth Land2Lab leads Community dietitian	Community kitchen
Baking luskinikn	November	Elder Youth Land2Lab leads Community dietitian	Community kitchen
Math camp nature walk Blueberry tea leaf experiment Blueberry jamming	July	Youth Knowledge Keepers Elders Math camp staff Food researcher Land2Lab leads	Harbour Trail University food lab
Food safety certificate workshop	August	Youth Land2Lab leads Dietetic intern	University food lab

lab experiments related to nature walk topics such as pollinators, medicines, and teas. The day concluded with an Elder sharing stories about hunting, fishing and gathering Mi'kmaw foods, and the importance of this in celebrating culture.

### Food safety workshop

The third component of the Land2Lab project was a food safety workshop for youth ages 14–16 years to help prepare them for food-related job opportunities and develop relationships with peers and mentors from their community. This 2-hour workshop was held at the StFX food lab and provided an overview of food storage, safe cooking temperatures, refrigeration, and cleaning/sanitizing techniques. The youth practiced temperature checks and knife skills while preparing, enjoying, and cleaning up from a meal of moose meat tacos. They shared stories about the land, moose hunting, and family activities. Each participant received a manual and certificate of completion.

### Online toolbox

While our initial intent was to deliver workshops in Mi'kmaw communities, we again had to adapt to COVID-19 public health restrictions. We decided to create an online toolbox that is now housed on the CMM website that would enable community leaders, dietitians, and other food workers to access our workshop resources. We asked teachers of different grades and from different parts of the province, to review the toolbox and

give feedback. Six teachers, both Indigenous and non-Indigenous who were committed to enhancing the Mi'kmaw teachings within their classes, provided suggestions on how to structure the toolbox and incorporate activities into the Nova Scotia School curriculum. We also asked two Mi'kmaw community leaders who work with children and youth to review and provide their perspectives. The toolbox was modified to better support the leaders' important work. The online toolbox can be accessed here: <https://drive.google.com/drive/folders/18pJYqCSWSb2Jd9ObxmYvPDWojFF9jHTF?usp=sharing>

### Next steps

While we continue to promote the program, some new directions have emerged. Teachers have requested professional development activities, so we are planning to develop workshops to help them explore Mi'kmaw foodways with their classes. As part of our evaluation strategy, we held sharing circles with youth and program leaders. We learned that youth valued land-based experiences, expressed pride for their culture, and were knowledgeable about Mi'kmaw foods. Female participants in particular expressed interest in developing hunting, fishing, and trapping skills. We are exploring opportunities to support them to pursue these interests.

Elders have asked us to include more Mi'kmaw language and practices such as the water bundle and full moon ceremonies. Loss of language and ceremony is a significant outcome of colonization and the residential school system [16–19],

and community leaders are working hard to re-introduce them to youth. We are committed to supporting this work.

### IN RELATIONSHIP: RELEVANCE TO PRACTICE

We learned during our ice fishing experience that Mi'kmaw ways have evolved over thousands of years and present effective means of securing food and caring for the environment [7, 20]. The youth knew the wisdom of their culture and were adept at living across Mi'kmaw and Western cultures. The efforts of the Elders to pass along knowledge have resonated. The optimism that the youth held was inspiring and demanding at the same time. They want and expect to be able to practice their culture, and to determine what that will look like for them.

We were also guided by community. The community decided when our events would take place and how that would happen. Workshops were canceled when there were deaths, celebrations, elections to be held, and other situations that took priority. Leaders offered advice on how to reach out to families, how to organize transportation to events so that all who wanted to participate could attend, and how to obtain permission forms from parents.

Our project took place during the COVID-19 pandemic where we used online activities to try to connect youth to the land. The youth took pride in photographing themselves and each other celebrating their catch, watching eagles soar, identifying medicinal plants, and posting to social media. Yet it is important, in our view, to experience the challenges of the land too. The knowledge and patience required to find the right spot to carve the ice fishing hole, and then to try to spear the eel for 2 hours before catching the first one, was an important lesson. On our nature walk, one youth walked into a hornets' nest and was stung, causing discomfort for the rest of the day. These kinds of experiences are critical in developing respect for Mother Earth, for ancestors who survived on the land, and for the Knowledge Keepers who are skilled in dealing with such events. E-TES was helpful in reminding us that we were learning together about the land, on the land, and that technology can support that.

We continue to reflect on what it means to work in relationship with each other, with Elders and Knowledge Keepers, and with community. Knowledge is created with others, upon the foundations of those who went before us, with respect for past struggle, and with immense hope for the future.

For Kara, this means taking back her power by reclaiming the *L'nu* (Mi'kmaw) process that is in her blood memory and that is sacred. Her work is anti-colonial and anti-capitalist. She will continue to promote and lead this work as an obligation to herself to maintain her power through ceremony. She is engaging in her Mi'kmaw ways and refusing the colonial processes just like her ancestors did. She is disrupting existing power structures and colonial processes by supporting the resurgence of Mi'kmaw food systems and promoting her

responsibility as a Mi'kmaw woman to lead and build positive relationships with her allies. She is living up to her responsibility as a Treaty person to make the best possible contribution to the generation in which she is living today. She will continue this difficult healing and remember the stories of her ancestors.

For Renee, this means challenging colonial and capitalist perspectives within herself, and others. She sees great value in helping others live in the truth of multiple perspectives, as it should not be the burden of Indigenous peoples alone to educate non-Indigenous peoples, of Canada's colonial nature. It is all our responsibility as Treaty People to be in good relations with each other and Mother Earth. She is committed to a life-long co-learning journey with Mi'kmaw communities to advocate for Mi'kmaw self-determination, and truth and reconciliation, within her spheres of influence.

For Ann, this means learning, listening, and accepting that her goals and priorities may not be shared by others. Mi'kmaw knowledge is a not an academic domain to be mastered, but rather a privilege bestowed. It is not hers to analyze, interpret, or disseminate but rather a gift to appreciate and learn from, with the guidance of community. It is wisdom to respect, a spark to ignite a dancing spirit, and a thread that connects understandings of what it means to be human on our shared Mother Earth.

We invite the dietetics profession on this co-learning journey. We ask settler dietitians to be genuinely receptive to listening and learning about Indigenous knowledge, language, and ceremony and ensuring stories of the land, water, and sky are respected through-out our practices.

We conclude with the poem *Nutkmaq* by Mi'kmaw poet Rita Joe [21]. *Nutkmaq* translates to the English word "fertilizer" which we feel is an appropriate metaphor for what the Land2Lab program strives to achieve: respect for the land, awareness of the benefits of Mi'kmaw ways, connecting spirit with science, and inspiring youth to carry forward Mi'kmaw food teachings in their own ways. We hope to see our dietitian colleagues involved in this work.

#### *Nutkmaq* (Fertilizer)

*To the budding mind of today's young  
Hoping to reach good soil  
My nutkmaq to germinate in sunbeam's toil*

*I scatter the seed  
Not only for my culture but for all  
Not to the narrow trail that some venture  
Needing only a nudge to stall*

*I will always throw the seed  
In amazement and wonder  
For the telling to further your interest  
That you read this and ponder*

*By Rita Joe*

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