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Assessment practices with indigenous children, youth, families, and communities

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Assessment practices with indigenous children, youth, families, and communities

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Editorial: Assessment practices with Indigenous children, youth, families, and communities

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Editorial on the Research Topic
Assessment practices with Indigenous children, youth, families, and communities

As has been intergenerationally storied and restored by Elders, Knowledge and Language Keepers, families, and communities on lands now known within dominant narratives as Canada, Hawaii, New Zealand, the United States (and more), Indigenous peoples have always known how to educate their children. This eBook draws on the Land/Place relationships, experiences, languages, and knowledge of diverse peoples of Indigenous and non-Indigenous ancestries to explore understandings of assessment making. Assessment making is a holistic process shaped by desires to sustain and grow a child's, youth's, or adult learner's ongoing educative/healthy life-making within, between, across family, community, and schooling places. Highlighted throughout this eBook are ways teachers and teacher educators might live ethical relationality (Donald, 2016) with Indigenous and non-Indigenous children, youth, and adult learners by shifting toward assessment making lived out as a pedagogy of *pimosayta* (walking together in a good way) (Young, 2005).

Oral and personal stories (Littlechild, 1993; Jordan-Fenton and Pokiak-Fenton, 2011; Wagamese, 2012) and research have long noted the damage Western forms of education and assessment shape in the experiences, and therefore the identity making and life making, of children, youth, adult learners, families, and communities of Indigenous ancestry (Ermine, 1995; Battiste and Henderson, 2000; Cardinal, 2011, 2015; Young et al., 2012; Battiste, 2013; Swanson, 2013). Given the dominant colonial narratives of accountability that persist in schools and universities, too often assessment focuses on the learning deficits of Indigenous peoples (Peltier, 2017). This orientation demeans and ignores the educational aspirations of Indigenous peoples, because it fails to take into account the difference between Indigenous holistic ways of knowing and colonial ways. While there are calls for educators to promote cultural differences, appreciation, and success through cultural competence acquisition in children's autonomous learning

processes and to include essential aspects of Indigenous education, such as values and knowledge of Indigenous peoples' experiences, perspectives, and worldviews, these calls are seldom heeded within current school or university cultures of accountability (Bouvier and Karlenzig, 2006; Rameka, 2007; Claypool and Preston, 2011; Peltier, 2017). A focus on Indigenous holistic ways of knowing leads to the development of assessment making that is more meaningful and in harmony with Indigenous (and non-Indigenous) children's, youth's, and adult learner's learning as a deeply contextual, dynamic, intergenerational, and inter-relational process.

This eBook offers important opportunities to think alongside. Ball who emphasizes that "we need to show that we value diversity, not only in our rhetoric, but in our everyday practices, including how we assess children's learning and development" (p. 8).

Brown's stories and analysis that make visible how an educator can listen deeply and make spaces for emergence and possibility for all of the beings who form the context of a child's learning, and in doing so, seeing all as co-educators and co-learners.

Huber et al. who seek to deepen reader's understanding of assessment that centers Pimatisiwin (walking in a good way) and Pimosayta (walking together in good ways) by attending to the everyday assessment making pedagogies of children and families.

Peltier who shows how Indigenous Knowledge opens up colonial forms of assessment to situate children as capable and whose growth needs to be understood much more broadly than merely as academic achievement in schools.

Preston and Claypool who discuss what assessment could look like with Indigenous leaners, describing that these possibilities need to involve dynamic forms, consider diverse worldviews, and sustained professional development, and align more closely with the cultural ways of knowing of the child/youth.

Rameka who speaks to the potential of Kaupapa Māori assessment, which builds upon the vital role of Māori philosophical and epistemological understandings in the struggle for educational equity for Māori peoples in Aotearoa's, (New Zealand's) education system.

Shultz and Englert who draw on critical race theory, TribalCrit, culturally sustaining/revitalizing pedagogy, culturally responsive schooling, and culturally relevant education to offer understandings of the need for "cultural validity…as the foundation of an appropriate assessment for Native students" (p. 3). Key, too, is their desire to lift "sovereign pedagogies" (p. 4).

Stavrou who highlights ways the teachers he worked with embodied miyo-pimohtwen, a process guided by eight principles supported by kohtawān (our spiritual being) that shaped their assessment practices.

Steinhauer who offers rich and multidimensional processes for privileging Indigenous language thought systems. She shows that if we begin to honor and privilege Nehiyaw mâmitoneyihcikan—the Cree mind—then assessment and educational practices will be grounded within a compassionate mind, and a values based way of seeing, and living.

Tulloch et al. who highlight four key threads that emerged from their inquiry alongside teacher, community, university, and government co-researchers: 1) Ensuring community-established goals for language learning; 2) Using the Inuktitut language for everyday communication; 3) Involving parents and community members through school-situated events and displays of children's learning of the language; and 4) The desires expressed by teachers, students, and community members for Inuttitut learning and assessment to be land-situated.

White who opens potential to think about what kind of future we wish for our children and for the next seven generations by taking us on a journey through her familial stories. She offers ways to think deeply about the differences between western and Indigenous educational practices.

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A Narrative Inquiry Into Indigenizing School Mathematics Through Miyō-pimōhtēwin and Kamskénow

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In Canadian mathematics education, dominant colonial narratives highlight an achievement disparity between Indigenous and non-Indigenous students in a way that often re-inscribes perceived deficits of Indigenous students, ignores the educational aspirations of Indigenous peoples, and sidelines Indigenous cultural and linguistic representations of knowledge in the classroom. Intentions of Indigenizing curriculum include challenging and reversing racist and colonial ideologies that hinder Indigenous education, providing meaningful alternatives within school cultures that foreground essential aspects of Indigenous education, and supporting the dynamic learning of Indigenous students. In my research described in this article, I used a narrative inquiry to describe how two Cree elementary school teachers shared promising practices of holistic assessments in school mathematics that centered their Cree language, *miyō-pimōhtēwin*, and *kamskénow*.

Keywords: indigenization, school mathematics, narrative inquiry, cree, assessments, miyō- pimōhtēwin, kamskénow

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INTRODUCTION

My name is Stavros Georgios Stavrou. I was born and raised in a western prairie province in Canada, located on the ancestral and traditional land called Treaty 6 territory. I have Greek heritage on my father's side (he was a Cypriot immigrant), and French and Ukrainian heritage on my mother's side (she was born in the prairies). I acknowledge my colonial ties to Canada that have benefited me at the expense of Indigenous peoples. I have chosen to work alongside Cree educators to support the education equity of Indigenous students.

I work at the University of Saskatchewan as a mathematics lecturer in the College of Arts and Science, as well as a teacher educator in the College of Education. My research in the prairies relevant to this article included co-teaching Grade 6 school mathematics with Cree elementary school educators. The Saskatchewan Curriculum (2009) included outcome indicators that measured students' abilities to describe the ways Indigenous peoples (past and present) represent(ed) topics pertaining to numbers, shape and space, patterns and relations, and statistics and probability. However, outcome indicators that involve drawing on Indigenous experiences, languages, and knowledges are seldom included in formal assessments. Speaking from my experiences, these indicators are omitted due to a lack of resources to guide this process, as well as a level of uncertainty to assess these topics in a meaningful and authentic way. In a few instances, I witnessed teachers including questions on tests that asked students to draw examples of shapes and solids from Indigenous cultures. The expected answers were that medicine wheels are circles, tipis are cones, and drums are cylinders.

Shallow examples of material representations of culture (or exclusion altogether) do not foster youth's educative and healthy life-making across familial, community, institutional, cultural, and linguistic contexts. In this article, I shared experiences in which school mathematics assessments were conducted in relationally-ethical ways by *kamskénow* (discovering) and *miyō-pimōhtēwin* (walking in a good way), achieved through Cree *kohtawān* (spiritual being) principles. This holistic Cree framework was attentive to Indigenous ways of being by drawing on Cree to demonstrate promising practices for philosophically grounding assessment-making through understandings of kotowān principles and processes of discovering using mathematics.

Activating school assessments in the mathematics classroom that involved cultural and linguistic acquisition in the context of family, community, land, and place opened up assessment-making potential that taught to the lives of the students. Indeed, rather than assessments shaping the lives of students, the experiences of the teachers and students shaped the assessments and offered new understandings of Indigenizing school mathematics.

WHAT IS INDIGENIZATION AND WHY DO WE NEED IT?

Mathematics is a subject shaped by invalid Eurocentric notions that it is acultural, apolitical, value-free, and universal (Bishop, 1994; Ernest, 1994; Gerdes, 1996). In educational institutions, school and university mathematics are used to regulate access to learning and employment, and provoke fear and anxiety amongst students and teachers (Iseke-Barnes, 2000; Popkewitz, 2004; Stinson, 2004; Macmillan et al., 2005). School and university mathematics assessments also operate as a barrier to Indigenous and minoritized students' ways of knowing mathematics, their mobility within educational contexts, and are used to racially justify the achievement gap through cultural-deficit discourses (Iseke-Barnes, 2000; Aitken and Head, 2008; Battey, 2013; Stavrou and Miller, 2017; Stavrou, 2020).

Ministries of Education—jurisdictionally located within Canadian provinces—have been Indigenizing curriculum and school spaces in the K-12 and post-secondary levels as part of reconciliation, cultural inclusion, decolonization imperatives, and anti-racism (Gaudry and Lorenz, 2018; Goulet and Goulet, 2014; St. Denis, 2004, 2007; Stavrou, 2020). The multi-faceted and evolving conceptualizing of Indigenization includes: recognizing treaty rights, expanding Indigenous epistemologies and ontologies, working towards reconciliation, decolonizing Euro-Western education and the colonial processes that maintain it, destabilizing racism and oppression in education, land-based education, and meaningful inclusion of Indigenous languages and culture (Aikenhead, 2006; Battiste, 2013; Battiste and Henderson, 2009; Brake, 2019; Gaudry and Lorenz, 2018; Goulet and Goulet, 2014; Korteweg and Russell, 2012; Kovach 2010a, 2010b; Kuokkanen, 2008; Snively, 1990; St. Denis, 2011; Truth and Reconciliation Commission, 2015; Wildcat, 2001).

How these concepts and processes are operationalized in education is fluid across dynamic locational, familial, institutional, experiential, linguistic, and cultural contexts. It is in the individualized experiences of people working in relation that provide meaningful mobilization of Indigenization (Stavrou, 2020). In my research described in this article, I used a narrative inquiry methodology to share my experiences co-teaching Grade 6 school mathematics alongside two Cree elementary educators. In the unique institutional, linguistic, and cultural context of my work and research, Indigenizing school mathematics became meaningful through the teachers' Cree language and ways of being, It was through our experiences that we shaped the teaching environment and assessment practices of school mathematics, thus creating new stories to live by that were attentive to the needs and aspirations of their Indigenous students.

METHODOLOGY

Narrative inquiry as a research methodology was introduced by Connelly and Clandinin (1990) based on a Deweyan (1997) ontology that education and life are intertwined. As we interpret our storied lives—past, present, and the imagined future—narrative inquiry guides research in contexts such as studies of education, community, healthcare, history, and anthropology. Connelly and Clandinin (2006) explained that narrative inquiry is a way to think of experience as story, where story is "a portal through which a person enters the world and by which their experience of the world is interpreted and made personally meaningful" (p. 477).

Narrative inquirers attend to experiences through considerations of three dimensions—temporality, sociality, and place (Downey and Clandinin, 2010). *Temporality* means being attentive to people and events evolving through the past, present, and future. *Sociality* refers to the inquirer and participants' personal conditions of "feelings, hopes, desires, aesthetic reactions, and moral dispositions" (Connelly and Clandinin, 2006, p. 480), as well as the social conditions of the environment and people who shape contexts. *Place* means the location(s) where the inquiry and events under inquiry take place. *Thinking narratively* is the simultaneous exploration of all three dimensions, which is a requirement of any narrative inquiry (Clandinin and Connelly, 2000).

Based on the work of Clandinin and Connelly (2000), Kirkpatrick (2008) provided a visual representation that shows the interplay of the three narrative dimensions.

Image from Kirkpatrick (2008) provided in **Figure 1**.

Clandinin (2013) explained that an inquiry starts with *narrative beginnings*, which is a personal justification of the research wonder through an autobiographical introspection. After the researcher frames their inquiry, they negotiate entry into the inquiry site with their research participants. Attentive to the narrative commonplaces of temporality, sociality, and place, the researcher and participants co-compose *field texts* (data such as written or recorded observations, transcribed conversations, lesson plans, curriculum documents, etc.) Clandinin and Caine (2013) explained that field texts show temporality as they are co-composed over many interactions and include considerations of earlier life experiences. Sociality is shown during these outward events as researchers and

participants pay attention to their inward emotions, thoughts, and moral responses. Place is the physical backdrop where the inquiry and reflected experiences occur.

Part of thinking narratively is using the data to co-compose *narrative threads* with participants. Clandinin and Connelly (2000) explained that *narrative threads* are plotlines woven over the commonplaces of time, place, and social interactions. Narrative threads are not compartmentalized themes. Rather, they are continuous plotlines that describe the intricacies of human experiences across contexts.

Narrative Inquiry Site

My work and research as a narrative inquirer involves coming alongside Cree educators and students to co-teach school mathematics with attention to Indigenization. Attending to Indigenization involves describing the political, social, and cultural characteristics of school mathematics. One aspect that I wanted to address are the ways assessments are shaped by the varying contexts of Indigenization in school mathematics. This article builds on my research wonders of how practitioners take up Indigenizing school mathematics. My research and interest in this area aligns with the Canadian Truth and Reconciliation Commission's (2015) calls to action urging the support of Indigenous linguistic and cultural education in classrooms. Foregrounding equitable assessments *via* Indigenous ways of knowing and being in education are part of the ongoing need to decolonize pedagogies and school subjects—especially those that are produced as acultural and universal, such as mathematics and science (Battiste, 2013; Goulet and Goulet, 2014; Iseke-Barnes, 2000).

The inquiry site for this work were two classrooms in a Cree-bilingual school. The participants' chosen pseudonyms were Miss Moore and Miss Scribe. Both were fluent Cree speakers with ties to their nearby reserve communities. Both teachers travelled back to their family homes on weekends and holidays. Both teachers actively participated in community-held powwows, sweats, tipi raising, and sun dance ceremonies (some of these ceremonies were also part of the school's programming). The students in their classrooms were predominantly Cree, with varying levels of Cree language fluency. There are different linguistic dialects of Cree across Saskatchewan (including Plains, Woods, and Swampy). The dialect spoken by the teachers and students was Plains Cree. Indigenization is shaped by the linguistic and cultural diversity of Cree (and other Indigenous cultures). This is important to note because Indigenization is not monolithic.

My relationship with the teachers and students is through my employment as a teacher educator with the University of Saskatchewan. I met with the teachers once a week during their mathematics class. We co-taught mathematics to the students, and I made field texts using written observations. I interviewed the teachers individually after class and recorded our conversations. I presented our transcribed discussions at subsequent interviews. We negotiated how our conversations and my classroom observations would develop into this article. For example, we agreed on sharing the kohtawān principles lesson plan document, as well as what to include in the interim texts (partial texts that are open to changing as researchers and participants co-compose stories and interpretations).

Connelly and Clandinin (2006) explained that negotiating how the collection of field texts shape the interim and final texts is part of the methodological commitments of narrative inquiry. Our discussions evoked stories to live by—a narrative conception of identity-making (Connelly and Clandinin, 1999)—that showed a nuanced approach to Indigenization and cultural identity (Stavrou and Murphy, 2019) through holistic assessment-making that was grounded in Miss Moore and Miss Scribe's Cree language and ways of being. Specifically, I have come to see a facet of Indigenizing school mathematics to be about ways of being in relationship, rather than a focus on subject matter. I have also learned that the broad term *Indigenization* is made meaningful by contextualizing it to experiences shaped by the narrative commonplaces of temporality, sociality, and place. One intention of this paper is to provide one particular example of how we have conceptualized and operationalized Indigenization in Grade 6 school mathematics.

NARRATIVE THREADS

Narrative threads are plotlines that represent experiences through the narrative commonplaces of temporality, sociality, and place (Clandinin and Connelly, 2000). In this article, I shared our stories to live by through two narrative threads that evolved during the inquiry. The first thread, which we named miyō-pimōhtēwin (walking in a good way), highlighted an alternative holistic assessment practice in which Miss Moore and Miss Scribe explained how they evaluated the relational space created by their students. This was achieved by assessing how Cree kohtawān principles guided students towards miyō-pimōhtēwin.

The second thread was named kamskénow (discovering). This involved the teachers assessing how their students shared ideas and solved problems using school mathematics. This alternative assessment foregrounded processes of discovering that supported the cultural and linguistic knowledges and aspirations of the students and teachers, and served to provide more meaningful practices of Indigenization that was personalized to our educational contexts. Kamskénow emphasized that learning school mathematics was an ongoing process of discovering another way of seeing and experiencing the world around us. The experiences shared focus on the teachers' implementation of these assessments, rather than the responses of the students.

Miyō-pimōhtēwin

Miss Moore and Miss Scribe focused on relationships in the mathematics classroom through miyō-pimōhtēwin. Miyō-pimōhtēwin was an ongoing process guided by eight principles that supported kohtawān (our spiritual being). An image of these principles, provided in **Figure 2**, was part of their assessment documents. These principles (created and shared by Senapan Thunder) were provided to the teachers during professional development presentations. The pictoral representation of the kohtawān principles in the field note was the resource they brought back to their classroom, which was introduced to me later during one of my visits to the school.

When we practiced the kohtawān principles, we balanced the physical, mental, spiritual, and emotional parts of our whole being. Focusing on relationships—rather than traditional methods of mathematics assessments—changed the learning environment of the mathematics classroom.

In the Saskatchewan mathematics curriculum, teachers are expected to recognize that mathematics is not acultural, and Indigenous cultural contexts and pedagogy influence mathematical learning (Saskatchewan Curriculum, 2009). Miss Moore and Miss Scribe integrated assessments that helped students experience their mathematics classroom as a relational space, rather than a rigid time for doing decontextualized booklet work and memorizing facts by rote.

The teachers demonstrated that the starting place was not subject-matter, but rather how we treated ourselves and others while we learned together in the classroom. The following interim text was from a transcribed conversation (field note) in which Miss Moore explained how the kohtawān principles guided her classroom assessments. Bracketed words were added by me for clarification.

> *Each student gets a laminated paper with the kohtawān principles written on it. They know the eight principles hold equal importance so that we are miyō-pimōhtēwin. Throughout the day, the students highlight the words with a Dry Erase marker. By the end of the day, all the principles should be highlighted. If any aren't, we pause individually or together to get our spirits on track. The next day, we erase the paper and repeat the process. Chuck and Dale* [pseudonyms given by me] *come to school every morning saying they started* [the principles] *at home with their parents, and they make an effort to explain to me and the class what activities they do at home* [to feel better] *when they are upset or stressed.*
>
> *Students are motivated to highlight all the principles by the end of the day because it represents perfect balance. Math class is a frustrating place for some students and teachers. Sometimes, students had a principle highlighted that they had to erase during* [math] *class because they got upset. I can't just assess for content knowledge. I have to know that they are seeing the value in what they are doing and that they don't feel stupid if they don't understand.*

(Interim text, December 2019).

I witnessed the kohtawān principles in action during my visits to the teachers' classrooms. One notable experience involved an inquiry-based activity in which students had 1 wk to create and describe a pictoral model of a rectangular garden based on specific criteria (e.g. fixed perimeter, cost of supplies, maximizing planting area, quantity of dirt required, how to space seeds, etc.) Not surprisingly, students progressed at different rates throughout the week. A few students were stuck on the step of trying to determine the dimensions of the rectangular garden that would give the largest planting area. One of the students, Jill (pseudonym chosen by me), became angry 1 day. She was withdrawn, unmotivated to continue, and ignored her classmates out of frustration. Miss Moore used the principles *ākamēyimo* and *wīcīhiso* to remind Jill that we must move frustration out of our bodies by finding new ways to help ourselves. This opened a conversation in which Jill expressed feeling stupid because she needed to go slower than most of her classmates. Miss Moore explained that when we are learning something new, *nākatēyimiso*—being aware of yourself and your strengths—was more important than being as fast as everyone else and getting the right answer. This alleviated Jill's frustrations and shifted her focus positively back to her work.

Miss Moore demonstrated that part of learning successfully involved feeling balanced. She wanted students to know that their sense of wellbeing was always the focus throughout the day. This Cree way of being made curriculum a process that foregrounded relationships through miyō-pimōhtēwin. Miss Moore's familial experiences (outside of classroom contexts) learning Cree (as a language and way of being in relationships with others), revealed her curriculum-making as she brought her knowledge into the classroom (Clandinin and Connelly, 1992). The kohtawān principles are not specific to mathematics—the teachers apply this in other subjects, but this application is not something I consider in this article.

Kamskénow

At the end of the week, the students were putting the final touches on their projects. The teachers and I arranged to have the students share their ideas within small groups as we assessed their work. Many students were fixated on their final answers, and whether or not they were correct. This drew me backwards in time to the feelings, hopes, tensions, and desires (Connelly and Clandinin, 2006) of my own schooling experiences in which I was anxious and self-conscious about my answers during math class. This all-too-familiar concern we have all likely shared resulted in some students (including Jill) being too doubtful and insecure to share their work. Miss Moore and Miss Scribe subverted these issues by reminding their students that projects in math class are part of kamskénow—ongoing processes of discovering the world around us.

The teachers explained in Cree that the project was not about having a perfect model, but rather about discovering and describing some of the necessary things required for creating their rectangular gardens. They said mathematics was one of the many tools used in kamskénow because it allowed students to describe and model their project through measurements and quantities. Students were asked to share what ideas they needed to design their model, rather than describe the end result. Students were also encouraged to explain things they struggled with, and how they relied on their peers and teachers for guidance. As the inquirer, I observed the ways social, cultural, and institutional narratives shaped the teachers and students' experiences, as well as my own (Clandinin and Rosiek, 2007). For example, I realized the ways my understanding of Indigenization was shaped by these experiences and discussions in the classroom.

The following interim text was from a transcribed conversation (field note) in which Miss Scribe explained how she connected the concept of kamskénow with assessments. Bracketed words were added by me for clarification.

> *The problem with the status quo of assessments is that we need to teach students a lot of concepts in a short time, and*

> *then give them a written test. This is such an unnatural way to learn. We have oral traditions that dictate how and when we share our knowledge, and this knowledge transfer happens by doing. By seeing* [how we do things] *we can make sense of what we know and don't know. I can't just look at a piece of paper with some equations and numbers on it to see if my students get it. I can't just give them a grade on their final answer and not expect they won't feel stupid if they don't get a perfect score. Lots of students won't come to school when there's a test.*
>
> *Students need to learn about area, perimeter, the environment, money, and finding the best way to measure all that stuff* [optimization]. *I don't always care about the final answer though. I care about if the students can think about these concepts in their life. I want them to embrace that they will always make mistakes along the way. I don't give them a mark, I ask them what they have thought about, what is missing, who they can ask for help if they get stuck, and things like that. This is what it means to discover as a Cree person. This is kamskénow.*

(Interim text, December 2019).

By emphasizing kamskénow, Miss Moore and Miss Scribe established a culturally-relevant and meaningful curriculum that allowed them to pass on traditional knowledge. They created resources and assessments by centring their language and stories of experience, which exemplified ways teachers are curriculum-makers (Campbell and Caswell, 1935). These assessments did not replace Eurocentric forms of assessment, rather they provided a shift in the focus of what gets assessed.

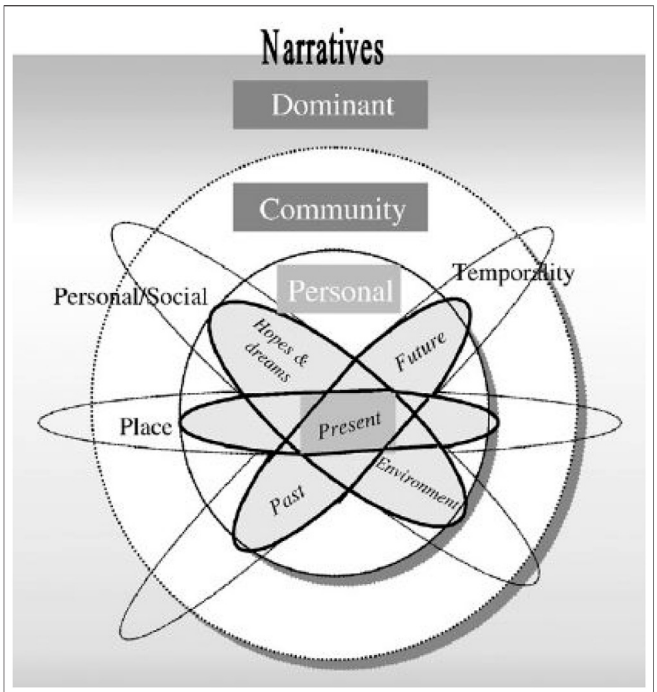

FIGURE 1 | Dimensions of a Narrative Inquiry.

CONCLUDING REMARKS

The stories I shared of our classroom experiences showed the power and potential of Cree in providing holistic assessments that foreground languages, knowledges, and ways of being in relationships in the mathematics classroom. This potential is sought in broader contexts. As Goulet and Goulet (2014) explained:

> The rich, dynamic complexities of Indigenous languages need revitalization and full integration with linguistics, language teaching, education, neuroscience, and other disciplines. Language is not a simple reflective mirror or medium of experience; it is part of the complex cognitive neuro-scientific framework that governs our thinking and actions. (p. 56).

Miss Moore, Miss Scribe, and their students represented an aspect of Indigenization as being uniquely experiential and located in our languages. Combining miyō-pimōhtēwin and kamskénow in the mathematics classroom emphasized that we must begin and end in relationships, while attending to the processes of discovering in ways that support our mental, physical, spiritual, and emotional wellbeing. Attending to the teacher-student relationships—as well as my relationship with the teachers and students—was part of my relational responsibility as a narrative inquirer (Clandinin and Caine, 2013). Attending to curriculum in ways that centered relationships, miyō-pimōhtēwin, and kamskénow was how Miss Moore and Miss Scribe provided alternatives to assessment and teaching that were more meaningful to their students' learning.

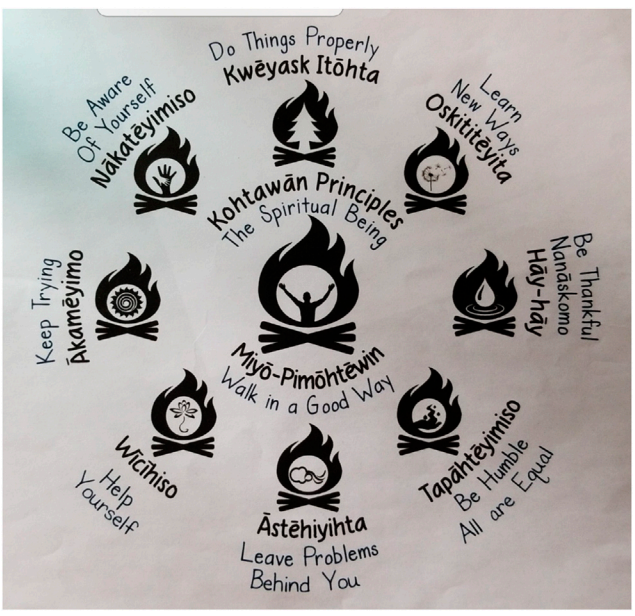

FIGURE 2 | Kohtawān principles.

The broader implications and results of these assessments in other classrooms, schools, and subject matter is not something the teachers and I attended to because we cannot speak to how a teacher's practice might shift. My ethical responsibility is in sharing our work, but I cannot necessarily say what the results will be. The possibilities of how teachers might factor these Indigenized assessments into grades is an area of future research and inquiry. As a narrative inquirer, I can *describe* some successes of our classroom experiences but I cannot *prescribe* how miyō-pimōhtēwin and kamskénow could be used in other classrooms, since the conceptualization and actualization of these assessment frameworks depended on the uniquely-determined classroom conditions and behaviors driven by Miss Moore and Miss Scribe. I wonder how our experiences will inspire others.

While our time together was abruptly halted due to the pandemic, I remained in a research relationship with Miss Moore and Miss Scribe through virtual means. We are finding other ways to be in relationships so that we can continue to shape our work and practice. I want to acknowledge these teachers (and all educators) for their tireless efforts during the pandemic to weather the storm. As the teachers transitioned back and forth between virtual and face-to-face teaching, miyō-pimōhtēwin and kamskénow remained integral to their teaching.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the author, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University of Saskatchewan. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

AUTHOR CONTRIBUTIONS

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Analyzing Assessment Practices for Indigenous Students

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The purpose of this article is to review common assessment practices for Indigenous students. We start by presenting positionalities—our personal and professional background identities. Then we explain common terms associated with Indigeneity and Indigenous and Western worldviews. We describe the meaning of document analysis, the chosen qualitative research design, and we explicate the delimitations and limitations of the paper. The review of the literature revealed four main themes. First, assessment is subjugated by a Western worldview. Next, many linguistic assessment practices disadvantage Indigenous students, and language-specific and culture-laden standardized tests are often discriminatory. Last, there is a pervasive focus on cognitive assessment. We discuss how to improve assessment for Indigenous students. For example, school divisions and educators need quality professional development and knowledge about hands-on assessment, multiple intelligences, and Western versus Indigenous assessment inconsistencies. Within the past 20 years, assessment tactics for Indigenous students has remained, more or less, the same. We end with a short discussion addressing this point.

Keywords: indigenous people, aboriginal people, first nation education, student assessment and evaluation, document analysis

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INTRODUCTION

Perso and Hayward (2020) described student assessment as "an ongoing process of gathering evidence to determine what students know, understand and can do" (p. 167). A teacher assesses students in many ways including oral responses, tests, student demonstrations, and group projects, for example. The effectiveness of assessment is important, because assessment has power and gatekeeping functions (Nagy, 2000) Assessment determines grades, class choices, pedagogy, curriculum, sometimes the location of one's school, graduation, and college/university eligibility. Moreover, assessment practices and results can create prevailing beliefs about one's ability to learn and succeed, academically, physically, emotionally and socially, in school and life, in general. However, not all forms of assessment are effective. Trumbull and Nelson-Barber (2019) explained that for both Indigenous and non-Indigenous students, many common assessment practices are ineffective and sometimes even detrimental.

Much research shows that when educational curricula and pedagogy are imbued with Indigenous knowledge and ways of knowing, Indigenous student learning improves (e.g., Lipka et al., 2005; Kanu, 2007; Preston & Claypool, 2013; Preston, 2017; LaPierre, 2019). For example, Lipka et al. (2005) found that Inuit students who experienced math lessons imbued with Indigenous hands-on activities performed better on standardized tests, compared to Inuit students who did not experience this specialized pedagogy. However, when searching for research focusing solely on assessment practices for Indigenous learners, there is a deep void. In other words, the question that is

under-researched is: what methods and approaches to assessment are most compatible with and supportive of educational success[1] for Indigenous students?

The purpose of this paper is to review the literature pertaining to assessment practices of and for Indigenous students. To begin, we present our positionality and explain common terms associated with Indigeneity and Indigenous and Western worldviews. We describe the meaning of document analysis, the chosen qualitative research design, and we identify the delimitations and limitations of the paper. We discuss the findings and explain how to address challenges associated with assessment for Indigenous students. Compared to the past 2 decades, changes in education are starting to surface, and improvements to assessment practices for Indigenous students is ideally positioned.

POSITIONALITY

Everything in life begins with the self. Every thought, experience, learning, and belief starts through the personalized filter of the individual. This point holds true for research, as well. In turn, we, the authors, start our research by relaying some personal and professional background information (aka positionality).

My name is Jane Preston, and I am a second-generation German Canadian born and raised in Saskatchewan, Canada. Both sets of my farming grandparents immigrated to Canada fleeing religious persecution in Central Europe. My parents first language was German, but this language was almost never spoken in my home. After the World Wars, within North America, people of German ancestry were sometimes perceived negatively. I know little about my German ancestors, their wisdom, or life experiences, but I am intimately close to my heritage via the gift of my ancestral DNA.

I was raised on dairy and grain farm. From a very early age, I was tasked with helping the family milk cows, tend a large garden, and plant and harvest of crops. I left home at 18 years old, studied to become a teacher, and taught in a First Nation community. As a graduate student, I was contracted by the Saskatchewan government and the public school division to complete a five different Indigenous research projects. After obtaining my PhD, I moved to Atlantic Canada and met a Mi'kmaq Elder, and a couple of years later, I co-taught an undergraduate Indigenous education course with him. Shortly thereafter, for about a year, I became his student in a Medicine Wheel course he instructed. As a part of his Indigenous teachings, I participated in many sweatlodge, smudging, and pipe ceremonies, and I learned to sing Mi'kmaq songs in Mi'kmac. Through his teachings, I acquired my sacred bundle, which I used during morning rituals to bolster my physical, mental, emotional, and spiritual wellbeing. I am grateful for this Indigenous knowledge and experience, because now I think about, see, and feel the world in a holistic, colorful, interconnected fashion.

My name is Tim Claypool, and I have European, Canadian, and American roots. My father was a first generation Canadian, born to American immigrants who homesteaded in southwest Saskatchewan. My mother was an Irish immigrant who maintained her ties to her County Cork family throughout her 91 years of life. My parental grandparents also stayed connected with their siblings and extended family in Wisconsin, Minnesota, Montana, Washington, and Alaska. Similar to Dr Preston, I also grew up on a farm close to where my father was born and raised. While attending elementary school in the close-knit village of Beechy, Saskatchewan I never saw a First Nations or Métis student or teacher. Even after our family moved to Saskatoon, I never knew an Indigenous student or teacher in my high school, which had an enrollment of about 1,500 students. It was not until I had completed four years of postsecondary education at the University of Saskatchewan (U of S) and accepted my first teaching position in the village of Dorintosh that I was introduced to First Nations and Métis business owners, community members as well as some students in my classes.

However, it was during my 12 years career to tenured Associate Professor at U of S's College of Education that I began my journey of discovery and understanding of some Indigenous worldviews and ways of knowing. By participating in Indigenous lead professional development opportunities and assisting with the planning an international conference for Indigenous scholars and allies, I became aware of significant gaps in my education and training, which only provided cursory acknowledgement of Indigenous peoples and typically steered clear of potentially contentious facts related to residential school atrocities, intergenerational trauma, and anti-Indigenous forms of racism. Thankfully, I came to know several Indigenous Elders and scholars who had the patience to help me understand basic teachings and traditions. Additionally, I have participated in Elder and Knowledge Keeper lead ceremonies that were integrated into my research, teaching, and service work as a faculty member. I also want to acknowledge the Indigenous undergraduate and graduate students with whom I have had the privilege to work over the years. Sometimes, the teacher needs to become the student when there are so many significant gaps in one's formal and informal education. My journey of understanding and supporting Canada's First Peoples continues.

TERMS AND CONCEPTS

Within this paper, some important terms requiring an explanation include: *Indigenous*, *Aboriginal*, *First Nation*, *Metis*, and *Inuit*. Also, throughout the paper, we address issues related to Indigenous and Western worldviews. Due to paper length restriction and the focus of this article (i.e., assessment practices), only an abridged explanation of these worldviews is provided.

[1]For us, educational success is a prekindergarten to high school journey where a student recognizes and assumes their academical, physical, emotional, and spiritual abilities. Our views are in line with the First Nations Holistic Lifelong Learning Model depiction of student success, which is a quadrilateral concept promoting the student's academic, physical, emotional, and spiritual wellness (Canadian Council on Learning, 2007).

Indigenous Terms

Within Canada, for several decades, the word Aboriginal, predominantly, was used when describing the original inhabitants of Canada. However, these days, a preferred term is Indigenous. The use of the word, Indigenous, was politically supported in 2015 when the Canadian Ministry of Aboriginal Affairs and Northern Development was officially renamed Indigenous and Northern Affairs Canada (Lum, 2015). Currently, the term, Indigenous, is regularly used within international discourse, discussions, and protocols when referring to the original inhabitants of a country or region (McMillan & Yellowhorn, 2004). Within Canada, Indigenous peoples include three groups: First Nations, Metis, and Inuit. "The term Indigenous refers to all of these groups, either collectively or separately" (Queen's University, 2019, p. 2). First Nation peoples refers to members of legally recognized bands or reserve-based communities in Canada (Peters & Mika, 2017). "Métis refers to the distinct society that emerged through the union of Indigenous and non-Indigenous cultures during the period of European expansion in Western Canada" (Lakehead University, 2020, para 3). Inuit refers to the cultural and linguistic (i.e., Inuktitut) identity of Indigenous peoples whose traditional land is located in the Arctic regions of Canada, Alaska, and Greenland (Lakehead University, 2020). With specific global regions, Indigenous peoples are referred to in various ways. For example, Indigenous people of northern Norway, Finland, Sweden, and Russia are called Sami (Stosowana, 2016), and the Indigenous people of New Zealand are called Māori. Within this article, whenever possible and appropriate, we use the term, Indigenous; however, based on the reference source or context, any of these terms may be used.

Worldviews: Indigenous and Western

A worldview is the way in which a person conceptualizes and makes meaning of the world (see Preston, 2019). It is a framework of one's core beliefs and embodied knowledge (Hedlund-de Witt, 2012; Braaten & Huta, 2017); it is a standard of ethics by which to live. A worldview is a set of assumptions, both conscious and subconscious, about how society functions. It is an interpretative framework by which good/bad and order/disorder are categorized and judged. From infancy through adulthood, a person's worldview is absorbed and created via language, culture, and social interactions. This worldview is solidified as a child grows and engages in cultural practices, family interactions, educational experiences, rewarding and challenging experiences, social interactions, and expectations of society. One's worldview informs and defines a person, provides a sense of purpose and direction in life, venerated values, dictates decision-making, and informs standards of conduct. Jacobs (2020) proposed that there are only two worldviews—the Indigenous worldviews[2] and the dominant Western worldview.

"The Indigenous worldview(s) encourages the expression of authentic reverence for women, gender fluidity, egalitarianism, cooperation, honesty, wellness, peace, harmony, restorative justice, democracy, ecological sustainability, and nonhierarchical organizational structures" (Jacobs, 2020, p. xxxix). Within such an existence, the ultimate purpose of life is to learn to "(live) in harmony with all relations, both human and non-human" (Jacobs, 2020, p. xi). Indigenous worldviews are about *interconnected wholeness*—every aspect of the world is directly and indirectly connected to every other aspect. Because there is no separation between nature and being human, all forms of creation possess one consciousness (Bastien, 2003). Donald (2016) explained, "The Sun, the land, the wind, the water, the animals, and the trees (just to name a few) are quite literally our relatives. We carry parts of them inside our own bodies" (p. 10). All matter is connected via shared energy, which radiates within and throughout every human being. Indigenous worldviews see knowledge, experience, and life as unified and holistic.

A Western worldview[3] also has a number of defining characteristics (see Preston, 2019; Jacobs, 2020). Humans are separate from nature. Human are the most important, advanced living creature and situated at the top of the pyramid of living things. A Western worldview sees the inanimate environmental presence of such things as rocks, rivers, mountains, grass, and plants as void of spirit. The modern Western society, which is secular and materialistic, tends to negates spiritual values (Hassed, 2000). Things that are measurable and quantifiable are real. Individuality and competition are important, and often, defining characteristics of life. Authority figures and institutions have power and influence, because domination and control over one another is related to survival. This worldview sanctions external rewards and punishments as motivators. A Western worldview reinforces the idea that the most of the curriculum taught in school is information that can be assessed through pen-and-paper-type assignments and tests. A Western worldview sees knowledge, experience, and life as compartmentalized into sometimes/often unrelated entities (Hart, 2010).

METHODOLOGY, LIMITATIONS, AND DELIMITATIONS

This qualitative research focusing on assessment practices for Indigenous students is a document analysis. As defined by Bowen (2009), a document analysis is "a systematic procedure for reviewing or evaluating documents—both printed and electronic (computer-based and Internet-transmitted) material" (p. 27). In simple terms, Glass (1976) described this process as an "analysis of analyses" (p. 3). Similar to a literature review, conducting a document analysis involves compiling, examining, and interpreting published data about a specific

[2]The plural term, "worldviews", is intentional. It is an attempt to respect and acknowledge the different perspectives among Indigenous people, communities, and Nations.

[3]For us, the term Western worldview is synonymous with Eurocentric or Eurowestern worldview.

topic, and it uncovers patterns and thematic consistencies to elicit meaning and gain practical knowledge (Corbin & Strauss, 2008; Bowen, 2009). In contrast, a literature review not only analyzes the research associated with a specific topic, it highlights the gaps in the research area and compares past studies to the researcher's prescribed study (Merriam & Tisdell, 2016). These two points are not features of document analysis.

The first step for this document analysis was data collection, which involved a literature search using the University of Prince Edward Island's (Canada) library database system, Google Scholar, and ResearchGate. Through these systems, we accessed international databases such as EBSCO, ERIC, JSTOR, Education Research Complete, and others. We found books, chapters in books, journal articles, dissertations, conference papers, magazines, policy documents, and other Internet-accessible documents related to Indigenous student assessment. The following search terms and their combination were used: "Indigenous student" "Aboriginal student" "First Nation student" "Metis student" "Inuit student" "Native student," "student assessment," "student learning," "culturally responsive assessment," "student outcomes," and "student success." With regard to Indigenous student assessment, we welcomed information from any age, grade, or educational program from early childhood to postsecondary education. Ensuing titles, abstracts, and/or content were scanned and judged to determine if the documents were appropriate for our research topic. From our efforts, we collected and digitally saved, 63 of what appeared to be relevant articles, chapters in books, and other online documents. After this topical literature was obtained, we completed a more thorough scan of each document by rereading abstracts and reading headings, reading full paragraphs, topic sentences, and the findings section, for example. After this in-depth review, we found only 40 of the 63 documents addressed on our research purpose—documenting common assessment practices for Indigenous students.

One of the authors printed the 40 documents. With the hard-copies of the documents in hand, the author read each source in detail underlining key passages, and, in the margins, jotted down paraphrased notes, findings, and/or phrases. After a few documents were analyzed, similar paraphrased words started to repeat (e.g., culture, language, cognition, standardized tests, etc.) These repeated phrases were the genesis of the creation of final themes. Our analysis of documents and semi-established themes was a process similar to thematically analyzing or coding interview transcripts. As Patton (2015) explained, coding involves finding patterns, establishing categories from the patterns, and creating overarching themes based on the categories. After having read all the papers, the author spent time reflecting on all the semi-established themes to create the overarching themes of this paper.

A number of delimitations [techniques for deliberately narrowing the research focus (O'Leary, 2017)], were applied to the research. To be included in our analysis, papers had to be published during the 20-year period of 2000–2020; they had to be published in English and provide insights about Indigenous student assessment. With regard to limitations [design characteristics that limit the generalizability of the findings (O'Leary, 2017)], we attempted to access documents worldwide; however, due to confinements of our library databases and our firsthand knowledge of Indigenous content, the retrievable literature reflected studies from Canada, Australia, New Zealand, the United States, and Norway. Also, because this paper was written during Covid-19 pandemic, access to physical books was limited to our personal libraries.

THEMATIC ANALYSIS OF THE LITERATURE

From the analysis of documents, four overarching themes surfaced. First, Indigenous student assessment remains subjugated primarily by a Western worldview. Second, much of the mainstream culture-infused, linguistic-laden practices of assessment disadvantage Indigenous students. Third standardized tests can be discriminatory when administered and interpreted inappropriately. Last, assessment primarily focuses on cognitive abilities. An explanation of these themes and the associated literature are provided below.

Assessment Subjugated by Western Worldview

Western knowledge and values directly and implicitly dominate schools, including, for example, the curriculum, organization of grades, organization of classrooms, expected styles of speaking, norms for interacting, instructional pedagogy, and assessment practices (Trumbull & Nelson-Barber, 2019). When reviewing the types of assessment techniques used with Indigenous students, Westernized forms of assessment are pervasive (Nelson-Barber & Trumbull, 2007; Fleet & Kitson, 2009). Popular types of Westernized assessment include written quizzes, tests, and exams, which primarily promote academic development via rational, linear, and accountable activities. Moreover, such assessment is largely focused on meeting curricular outcomes, and it tends to neglect the physical, emotional, and spiritual domains of students (Claypool & Preston, 2011).

Much of the literature denotes how Western assessment practices are culturally insensitive and potentially discriminatory to Indigenous students. Mainstream assessment practices do not sufficiently account for the social, economic, and political factors that contribute to the learning challenges experienced by many Indigenous students (Canadian Council on Learning, 2007). Stoffer (2017) stated, "Assessing a child in a way that does not seem meaningful or relevant to their life and culture is inauthentic and therefore meaningless, because it does not respect the learning of the whole child" (p. 66). From a holistic Indigenous standpoint, education is about gaining life skills; it is about communicative interactions, social relationships, self-discovery, and self-growth. In turn, assessment and self-assessment need to focus on the diversity of learning; the whole learning experience.

Grounded in Indigenous epistemology, learning is a holistic process, and assessment should include a personalized tactics. For example, within the subject of science, Friesen and Exeife (2009) call on assessment practices that address the sociocultural influence that shape student thinking. Moreover, they explain

that teachers need to understand Indigenous culture in order to create culturally valid assessments. Unfortunately, test items often contain information not privy to an Indigenous student who might embody a worldview other than Western. The content and mode of assessment tasks may be outside an Indigenous student's cultural and linguistic knowledges and ways of knowing (Klenowski, 2009) To address this point, researchers state that cultural congruency or culturally validity of assessment practices, test items, and test formats is a vital component of assessment of and for Indigenous students (Demmert, 2005; Nelson-Barber & Trumbull, 2007). Worldwide, mainstream curricula are dominated by favored facts, housed within objectives, goals, and outcomes that every student must learn; this conceptualization is rooted in the Western philosophy of education (Betts & Bailey, 2005).

Mainstream Language Disadvantages

Language is intricately woven into every assessment practice. In fact, Trumbull and Solano-Flores (2011) viewed language as the greatest component of cultural validity in assessment. For many Indigenous students, their assessment scores are not valid, because the words and composure of test questions and items are biased toward the dominant language, for example, either English or French depending on the region or Canadian province being considered. The National Academy of Education (2021) (an American research association) agreed, "Assessments themselves are potentially subject to inequities in design, content and language choices" (p. 11) In sum, in assessment, language matters and has the power to disadvantage learners.

Özerk, and Whitehead (2012) stated that language policies associated with the national assessments in New Zealand and Norway disregard the Indigenous language rights of Māori and Sámi students. When Indigenous students whose first language or primary school community language is not English, assessment techniques are not straight-forward. Moreover, Trumbull and Nelson-Barber (2019) explained that students exposed to more than one language have their knowledge organized differently. They may know some concepts and words in one language and not the other(s) In such cases, assessment should be done in the language and/or mixture of languages of their choice. According to the Norwegian Directorate for Education and Training (2010, as cited by Özerk & Whitehead, 2012) standardized tests in mathematics do not simply test the subjects of mathematics; they also evaluate how well a student can read the language of the test. With regard to a postsecondary Vocational Educational and Training online course delivered to Aboriginal and Torres Strait Island students in Australia, Wilks et al. (2020) explained that instructors need to be creative in the way learning is assessed so Indigenous students are not restricted to written assignments of standard English. Also, adapting and/or translating tests to the mother tongue of minority (Indigenous) student is an aspect of improving assessment (Solano-Flores & Nelson-Barber, 2001; Solano-Flores et al., 2002; Kieffer et al., 2009; Robinson, 2010). However, due to transcription inefficacy of language, it is important to note that not all tests can be simply transcribed.

The above information focuses on Indigenous students who were raised either surrounded or partially surrounded with their cultural language. What about best assessments for Indigenous students for whom English is the primary or only language spoken at home and/or have yet to (re)connect to their Indigenous roots? Although there is no one answer for this question, Wiltse (2011) explained, "Many (Indigenous) students speak a comprehensive dialect of English that is the result of the *influence* (italics inserted) of the Indigenous language or mother tongue on the English language" (p. 53). In other words, Indigenous students who speak only English and are not (re)connected to their Indigenous histories are still influenced by home environments and cultural DNA. In turn, the minimization of complex language on tests is an important component of culturally friendly assessment techniques (Nelson-Barber & Trumbull, 2007).

One example of how to improve assessment by focusing on Indigenous language is seen via the Office of Hawaiian Education (Sang & Worchel, 2017). To start, this governing body does not mandate educational outcomes or assessments within private Indigenous schools. Instead, the Office of Hawaiian Education trusts educators to integrate community members and their values into their school's assessment framework. In turn, educators alongside Indigenous community members identify outcomes that the school community views as valuable. Collectively, teachers and community members map out the learning experiences and effective forms of assessments for each outcome (Johnson, 2013). Another example of Indigenous language and assessment is seen through the Curriculum Research and Development Group at University of Hawaii at Mānoa (2020) In this Department, educators are transcribing (where appropriate) and rewriting Grade 3 and 4 standardized assessment tests to include Hawaiian Indigenous language and culture.

Standardized Tests Can Discriminate

The disconnect between Indigenous ways of knowing and Western assessment is blatant in large-scale or standardized testing. Within public education, students are often evaluated on their performance on standardized, decontextualized testing, a practice that mandates Indigenous students to navigate their learning via the school's Western worldview (Johnson, 2013). Within a Canadian context, for example, common standardized tests include the Programme for International Student Assessment (PISA), the Pan-Canada Assessment Program (PCAP), and various provincial assessment tests. Having stated such, it is important to note that not all Canadian school regions rely on large-scale forms of standardized testing, and individual schools can opt out of PISA test (Anders et al., 2021).

The appropriate use of standardized tests is often a contentious issue. Before relaying the about standardized test, a description of their psychometrics is helpful. First, all forms of assessment, standardized or not, have sources of error. Consequently, test developers include errors in measurement into their formulas for calculating a range of scores (aka confidence intervals) representing where the "true score" lies. The individual's actual test score is believed to be an *estimate* that is time and place sensitive. However, classical test theory's "observed score = true score + error" formula is scrutinized

when standardized tests are misused. Perhaps this point is the source of the derision often associated with standardized tests. Having stated such, standardized tests are meant to represent one type of assessment artifact. The onus is on the test user to select a standardized test that meets the following criteria according to the International Test Commission (2019): "Select a test based upon its suitability for the test purpose while taking into account the test and the background characteristics of the targeted population, including all linguistic groups" (p. 374). If a test developer does not include a proportional number of individuals from a selected cultural and linguistic group in their standardization process for their test, then it should not be used with those groups. Information obtained using (or misusing) that standardized test will likely yield information that is unreliable and invalid about those individuals not represented in the test's norming samples during the development process.

Johnston and Claypool (2010) explained that standardized tests can be problematic when attempting to effectively and fairly measure learning and academic success of Indigenous students. Notably, the majority of norm-referenced standardized tests predominately rely on Western knowledge paying little attention to cultural and linguistic barriers that have the potential to disadvantage Indigenous students performance while ensuring more positive outcomes for non-Indigenous test takers. Many authors and organizations stipulate Indigenous students experience a disadvantage during standardized testing, because the biased format and the questions honor Westernized knowledge (Philpott, 2006; Canadian Council on Learning, 2007; Kanu, 2007; Gould, 2008; Bouvier, 2010; Klenowski et al., 2010; Özerk & Whitehead, 2012; Lee, 2015; Solano-Flores et al., 2015; Stoffer, 2017; Trumbull & Nelson-Barbar, 2019). Stoffer (2017) concluded that there does not exist a standardized assessment tool that can properly assess Inuit student learning. Nelson-Barber and Trumbull (2007) went on to explain that the sources of bias in standardized testing for Indigenous students include test content, language, format, administration, scoring, score interpretation, and usage. In Montana, Dupuis and Abrams (2017) found that American Indigenous students performed better on items based on Indigenous knowledge, compared to mainstream-based questions. Within the area of science, Aikenhead and Mitchell (2011) argued that standardized tests are grounded in Western modern science and disregard Indigenous knowledge and ways of knowing. The need to incorporate Indigenous paradigms into assessment is well-documented by other researchers (Solano-Flores & Nelson-Barber, 2001; Solano-Flores et al., 2002; Solano-Flores & Trumbull, 2003), yet the practice of teaching continues to be organized around the dominant model of standardized curriculum and assessment.

An Ineffective Emphasis: The Cognitive Domain

Effective assessment for Indigenous students utilizes practices that equally focus on physical, emotional, intellectual, and spiritual growth and development (Marule, 2012; Claypool & Preston, 2014). However, popular assessment practices, especially in middle school and high school, often include multiple choice, fill-in-the-blanks, written short answer, written long answer, powerPoint presentations, essays, group work, demonstrations, and oral presentations, all of which emphasize Westernize intellectual knowledge (Claypool & Preston, 2011). Such forms of assessment view knowledge as something that can be "given, taken, accumulated, banked, and assessed by paper and pen [or computer] examinations" (Aikenhead & Mitchell, 2011, p. 68) Cognitive assessment is saturated with Western epistemology, where instructors assess set curriculum to age-appropriate student groupings at set times of the day. As well, teachers assess at specific times, which coincide with the production of individualized report cards, completed and sent home at set times (usually three or four times) during a school year. Assessment for Indigenous students is predominantly an intellectual, quantitative, process-oriented, teacher- and state-dominated powered system.

From a scientific-Western view, spirituality cannot be proven; thus, it is illogical, unsophisticated, and has little to no place in educational assessment. However, logic-infused Western assessment tactics are disconnected with much of the physical, emotional, and spiritual realms of life (Adams et al., 2008). Rameka, (2012) research revealed that early education assessment for Māori students needs to be spiritually located. A spiritual plane combines feelings, sensing, and intuition. Since assessment is evaluating what students do, say, and produce (Smith et al., 2004), to effectively evaluate a Māori student, teachers needed to use their spiritual plane to help them evaluate what the student says, does, and produces. Many teachers may be reticent or directly discouraged from using their intuition or spiritual essence as an assessment practice. Rameka (2012) explained that because spirituality is such a significant feature of Maori ways of knowing and being, Maori recognize spiritual assessment, name it as such, and accept it as a valuable assessment practice.

There is a mistaken belief that assessment is objective; in contrast, all assessment is value-laden, culturally contrived, and biased. Every person subjectively experiences the world through their own values, knowledge, and perceptions. Student assessment is no different. Not only should teachers use their emotions and spirit (i.e., intuition) to assess, Indigenous students should be encouraged to use these same domains to self-reflect on their learning. As a part of self-assessment, student need to be taught and encouraged to use and rely on messages emanating from body, heart, and soul (Claypool & Preston, 2011). Within a Hawaiian Indigenous context, emotion and spirit were incorporated into effective assessment when teachers asked Indigenous students to complete daily self-assessment rubrics and end-of-the week goals (Johnson, 2013). A number of additional studies highlighted ways in which not only cognitive, but physical, emotional, and spiritual aspects of assessment happen. In a postsecondary course with Indigenous students in Vancouver (Canada), Verwoord et al. (2011), created a Medicine Wheel assessment model, which consisted of four assignment each worth 25%. Each assignment was a self-reflection

about the academic, physical, emotional, and spiritual aspects of the course. Also, in Alaska, teachers collaborated to create assessment reflective of Inuit student learning, ideologies, and values. For that study, Coles-Ritchie and Charles (2011) found that performance tasks, portfolios, peer assessment, and student self-assessments (all of which aligned with real world tasks) were types of culturally congruent assessment that included all four realms (i.e., academic, physical, emotional, and spiritual) of assessment. Trumbull and Nelson-Barber (2019) identified effective assessment practices for Indigenous students as peer-observation, self-evaluation, and self-reflection, which incorporate emotional and spiritual domains into the assessment practice.

DISCUSSION: EFFECTIVE ASSESSMENT FOR INDIGENOUS STUDENTS

From the information above, there are many explanations, but limited examples of how to improve assessment for Indigenous students. Herein we provide a discussion to further elaborate on what assessment for Indigenous students is and could be. We use both the literature and our imagination to relay and envision possible sound forms of assessment for Indigenous students.

Dynamic Forms of Assessment

Riley and Johansen (2019) noted effective assessment practices for Indigenous students are group-oriented and simulate real-life experiences. Such assessment could be a holistic or project-based assignment, as experienced through outdoor education or culture camps (Preston, 2017). Such projects manipulate assessment to be something that is relevant and functional (Johnson, 2013). Also, educators need to incorporate story-focused narratives (Iseke, 2013), personal journals, and portfolios (Kanu, 2007) into their assessment practices. For example, algebra could be taught through storytelling and the utilization of personal symbols relevant to the student (Klenowski, 2009). Tests could be an oral discussion between students and/or student-teacher. What if summative assessment only took place when the student was ready? Also, the concept of letter/number grading and report cards need reconsideration. For example, an alternative to letter/number grading is a three-level check mark grading system. A check means "acceptable;" a check with a plus sign means "advanced;" a check with a minus sign means "still learning." Ongoing communication between students, teachers, and community members would result in a more holistic and inclusive forms of assessment. Teachers need to collaborate with parents and community members to develop appropriate assessment that stems from culturally sensitive instructional practices. Here, however, it is important to state that there is no "one" Indigenous culture; thus, culturally sensitive practices need to be defined according to the Indigenous context. In order to promote culturally sensitive pedagogy, teacher-community interaction is essential and relationships need to be established and nurtured. As a way for teachers and community members to socially bond before co-creating sound assessment, what about regular school-community potlucks or establishing a community coffee room right in the school? With regard to additional ways to improve assessment, what about open-classroom parent drop-ins where parents can assess, for themselves, how their child is doing?

Taking a sociocultural perspective to assessment might mean students interacting with parents, community members, and Elders to perform various tasks, and the adults assess the students task at hand. Such sociocultural assessment assumes that learning and assessment are socially negotiated and woven into a supportive student-focused community, which values holistic learning, teaching, and assessment. A community form of assessment is not done *to* students; rather, it's done *for* and *with* students. Children develop their thinking, communication, learning, and motivational propensities from the culture into which they are socialized (Vygotsky, 1978). In other words, Indigenous students create meaning from experience in culturally determined ways (Nelson-Barber & Trumbull, 2007). Their cultural socialization influence how Indigenous students learn, respond to instruction, communicate, and comprehend and respond to assessment tactics (Kanu, 2007). In turn, when creating assessment, teachers need to use the community's "funds of knowledge" (Vélez-Ibáñez , p. 47), which included values, symbols, context, and common practices of the local community.

Moreover, assessment practices for Indigenous students need to be refined so that they reflect multiple forms of intelligences and ways of knowing such as verbal-linguistic, logical-mathematical, visual-spatial, body-kinesthetic, musical, interpersonal-social, intrapersonal, naturalist, and existential-spiritual (Gardner, 1983; Johnson, 2013; Hajhashemi et al., 2018). These abilities and ways of knowing go beyond what the Western world has conceptualized as valid intelligence. For example, a final assessment could be a dance performance that encapsulates physical, emotional, spiritual, as well as intellectual knowledge and wellbeing. Johnston and Claypool (2010) suggested that assessment for Indigenous students include student interviews, behavioral observations, peer-generated assessment, talking/discussion circles to share views and ideas, experiential assessment, and parents, Elders, and community members also serving as evaluators.

Worldviews and Professional Development

An important step toward improving assessment practices for Indigenous students is to recognize one's worldview and pedagogical assumptions (Carjuzaa & Ruff, 2010). When a teacher and student embody different worldviews, assessment expectations are mismatched. Many teachers adhere to Western worldview assessment techniques that are rigid, formal, direct, and task-focused. As mentioned, such assessment standards are based on knowledge that is positivistic, mechanistic, compartmentalized, and, inherently, correct/incorrect. Teachers, principals, and policymakers need to recognize and understand the sociocultural circumstances and worldview of Indigenous students (Klenowski, et al., 2010). By adopting a sociocultural understanding to how Indigenous students learn and know, educators become better evaluators. Educators must learn to be culturally safe in their assessment practices (Stoffer, 2017). Through quality professional development, educational leaders and school divisions need to support teachers in their

efforts to develop and implement Indigenous assessment practices and confront assimilationist assessment tactics in their school environment (Coles-Ritchie & Charles, 2011). This professional development cannot be generic; it must welcome participation from Elders, community members, and Indigenous educators who understand the local Indigenous culture. To ensure meaningful professional development in this area, research shows that educational school divisions need to invest in long-term support and resources; sustained effort toward professional development is more effective than one-day workshops (Wylie et al., 2009).

A way to address and realign mismatched worldviews with regard to assessment is reflected by the Ministry of Education, Government of Saskatchewan's (2018) *Inspiring Success: First Nations and Métis PreK-12 Policy Framework*. One of the five policy goals of that framework is to ensure, "culturally appropriate and authentic assessment measures that foster improved educational opportunities and outcomes (for First Nation and Metis students)" p. 14. For this framework, representatives of First Nations peoples, Metis peoples, the provincial government, the postsecondary education sectors, and the public school systems united and agreed that culturally appropriate assessment was a pillar for educational improvement for Indigenous students. This policy agreement is a first vital step of successful multi-worldview cooperation.

Assessment Inconsistencies via Culture

A final aspect of describing assessment for Indigenous students is to remind educators of inconsistences between Western and Indigenous cultures. Upon first read, these inconsistencies may appear minor; in contrast, if teachers are able to recognize these inconsistences and their meanings, they will be well on their way to improving their assessment for Indigenous students.

To start, teachers need to be aware the Indigenous knowledge is commonly passed through stories and not through direct questions and reply answers. "Direct questions are often considered rude, because you are putting people on the spot (Piquemal & Nickels, 2005, p. 127). A heavy reliance on verbal demonstration of learning is not culturally congruent for many Indigenous students (Carjuzaa & Ruff, 2010; Riley & Johansen, 2019). In Piquemal and Nickels (2005) study of kindergarten Indigenous students in Manitoba, Canada, they did not raise their hand to answer a question as often as the non-Indigenous peers. Raising one's hand can mean a student has the answer, is competing with classmates, and is showing off, all of which is not culturally congruent with cooperation and non-competitiveness. A possible substitute to direct questioning of individual students is for the teacher to ask for choral responses (Trumbull & Nelson-Barber, 2019) and/or ask students to write responses on mini whiteboards, which they then hold up (Trumbull et al., 2015).

Second, Indigenous norms of communication include listening more and speaking less. For many Indigenous cultures silent pauses are used to listen, show respect, or consensus (Queensland Government, 2015). This positive use of silence is often misread in Western worldview as a student being passive or indifferent. Third, in many Indigenous cultures, eye contact is considered rude (Queensland Government, 2015). Thus, assessment should not be based on eye contact. Fourth, for many Indigenous learners, traditional values including the concepts of sharing, non-competitiveness, reluctance to speak out, and noninterface. Educators need to reflect on the importance and meaning of these values and ensure they are honored within assessment practices.

Fifth, utilizing an Indigenous worldview, it is considered disrespectful to attempt a task before one can perform it relatively well. From a Hawaiian Indigenous perspective, attaining mastery in one's professional craft is a primary goal, because the survival of the group demands it (Johnson, 2013). Indigenous peoples would not be asked to perform their craft publicly until they were adept at it. In turn, it is important to provide opportunities for Indigenous students to practice privately before performing publicly. Furthermore, instead of the teacher, it is the student who is left to determine when they are ready to perform (Nelson-Barber & Trumbull, 2007).

The concept of timed assessment also needs reconsideration. For example, time restrictions on tests penalize some/many Indigenous students whose culture values reflection, rather than quick responses as a measure of intelligence. Also, Riley and Johansen (2019) reminded educators that, when assessing discussions, ample time should be given to Indigenous students who want to fully contemplate an answer before speaking.

A final issue pertaining to culturally safe assessment targets publishing companies. "Companies who advertise their assessment tools as "culturally unbiased" cannot make such statements" (Stoffer, 2017, p. 68). Educational publishers need to consult with Indigenous communities to ensure they create culturally valid assessments.

CONCLUSION

Through our review of the past 2 decades of literature pertaining to assessment practices for Indigenous students, we see little change. Why? To address this question, it is important to recognize that, worldwide, public education has not substantially changed in the past 100–200 years (Foundation for Economic Education, 2019). Throughout this time, education has been organized and delivered through an industrial-like system of production and output. Students are divided in same-age groups, face the same curriculum, learn in same timeframe, are assessed the same way, and graduate at the same time. Perhaps this lockstep approach remains unchanged due, in part, to the significant investment of resources from various levels of government where accountability often translates into easy comparables, summarized in charts, tables, and reports. Unfortunately, individual differences, culture-informed knowledge systems, and personalized measures of success are sacrificed in standardized, system-wide approaches to assessment.

However, at the time of this paper, the world is experiencing myriad, dynamic changes never seen before. By 2030, Artificial Intelligence robots are expected to replace millions of current jobs. 3D printers will compound many new inventions. In the

near future, people may enjoy a bed-and-breakfast experience on the moon and witness the establishment of colonies on Mars. Nanotechnology could become an integral part of the human body. In addition to these major social, physical, and economical changes, Covid-19 has forced public education, in part, to break down and re-envision what education is and could be. For example, during school closures, teachers almost instantly assumed new online pedagogies and modes of delivery, regardless of whether they had training (Li & Lalani, 2020). Changes surfaced in the area of assessment, too. During Covid-times, teachers used more formative assessment assignments and fewer to no mid- and end-of-term examinations. Also, in some school divisions, number percentages and letter grading were change to a "pass/fail" evaluation (Contact North Nord, 2020). In many postsecondary settings, remote online final tests were instigated (Reid & Sam, 2021). Currently, education is experiencing a type of metamorphosis, transforming into something yet to be seen. Due to changes in technology and the consequences of Covid-19, now, more than ever, educators, school divisions, and mainstream society are open to thinking about educating and assessing students in new ways. Amid this transformation, we remain hopeful that assessment for Indigenous students will receive a much-needed upgrade.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Community-Anchored Assessment of Indigenous Second Language Learning in K-12 Schools

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Indigenous second language programs in K-12 schools contribute to culturally nourishing education and to the revitalization of Indigenous languages. Assessing Indigenous second language learning presents particular opportunities and challenges based on the linguistic, historical, political, cultural, and social contexts in and for which the Indigenous language is being taught and learned. The self-governing Inuit region of Nunatsiavut is concerned with developing effective and appropriate tools for assessing students' Inuttitut in order to evaluate how well K-12 programs are working so far, identify the basis on which future K-12 Inuttitut curriculum may be developed, and support ongoing assessment of learning and for learning in Inuttitut classrooms. This article discusses ways in which Inuit teachers in Nunatsiavut and a curriculum evaluation team have developed and implemented assessment tools and practices to evaluate Inuttitut learning in Nunatsiavut area K-12 schools. We discuss how Indigenous language learning and assessment, even when it occurs as part of an official school program, can be anchored in families and community. Families and communities need to be part of establishing language learning goals. Inuit teachers are drawing in full community resources and building a community of practice including Elders, other language speakers, leaders, principals, and teachers, to support and create contexts for community-anchored Inuttitut learning and assessment.

Keywords: community-based assessment, Inuit, Inuktitut, Nunatsiavut, indigenous languages, language revitalization, second language teaching and learning

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INTRODUCTION

Indigenous second language programs in K-12 schools provide an important opportunity for children to learn and increase proficiency in Indigenous languages. Indigenous language programs in schools can contribute to culturally nourishing education. Such programs are also part of revitalizing threatened languages. Assessment of children's progress is key to an effective program – curriculum developers need to know children's starting point to develop appropriate curriculum; teachers need to see what children are grasping, or not, and adjust their programs; and parents and funders want learning outcomes to be measured and communicated to them. Assessing Indigenous

second language learning in schools presents specific opportunities and challenges based on the linguistic, historical, political, cultural, and social contexts in and for which the Indigenous language is being taught and learned.

When the Inuit self-governing region of Nunatsiavut began a review of the K-12 Inuttitut[1] curriculum being taught in Nunatsiavut-area schools, it asked, "What do our children in each grade level currently know in Inuttitut?" and, "After we revamp our Inuttitut curriculum, how can we assess ongoing progress in Inuttitut?" In response, a university-based team, partnering with retired and current Inuttitut teachers and with the Nunatsiavut Department of Education and Economic Development and the Ilisautiliuvik SuliaKapvinga Curriculum Center, developed and implemented two assessment tools to assess current levels of Inuttitut proficiency among K-12 students in Nunatsiavut area schools. The team also examined how Inuttitut language teachers are currently identifying, tracking and recording children's progress, their ideas for innovative assessment practices, and what they need in order to feel comfortable and competent implementing Inuttitut assessment.

Results from the Nunatsiavut K-12 Inuktitut Evaluation show that Indigenous language learning and assessment, even when it occurs as part of an official school program, needs to be anchored in families and community. Curriculum and assessment practices need to match community goals for the Indigenous second language program—creating new speakers of Inuttitut who are able and willing to use Inuttitut for everyday conversation in the community. Our work pointed to the value of drawing in full community resources, and building a community of practice including Elders, other language speakers, leaders, principals, and teachers, to support and create learning and assessment contexts, particularly as many teachers themselves are either Indigenous second language learners or Indigenous language speakers without formal teacher training.

In this manuscript, we start with a brief contextualization of teaching, learning, and assessing Indigenous language proficiency based on the current literature. We then move into a background on teaching and learning Inuttitut in Nunatsiavut schools, which draws on the published literature as well as the co-authors' personal experiences, personal communication, and unpublished/technical reports. We conclude with a discussion of how a community-anchored approach can support effective assessment of Inuttitut learning. A community-anchored approach is consistent with the goals of incorporating the Indigenous language in schools to provide culturally nourishing education and to support language revitalization efforts.

ASSESSING INDIGENOUS LANGUAGE LEARNING OUTCOMES

Assessment of a learner's language proficiency is key to an effective program. Effective assessment practices create opportunities to observe, document, or measure what is known at the beginning of a program, and what has been learned mid-way through, or at the end of a program. Assessment outcomes can be important to funders, program planners, curriculum developers, and teachers in evaluating how well a particular program or approach is working, what to keep doing, what to change, and identifying gaps that need to be addressed (e.g., Sims, 2008). Ongoing assessment is part of effective pedagogy, allowing teachers to build on what learners know, and to keep learning in the proximal zone (e.g., Peter and Hirata-Edds, 2006). Having concrete, measurable objectives is also part of effective lesson planning—knowing in advance where learners are trying to get to in a given lesson or unit, and presenting activities to support achievement of those learning outcomes. In contexts where Indigenous language learning has been marginalized, or treated as a trivial subject, assessment may also contribute to more positive attitudes about the legitimacy of Indigenous language learning programs.

Languages that are widely taught as second languages often have well established benchmarks of second language acquisition that can be the focal point of assessment. These may focus on accuracy in pronunciation, vocabulary, morphology, and grammatical structures. The focus on accuracy may reflect an ideology of language and literacy as decontextualized skills (something you have, or know), rather something that you do and practice (Street, 2003). Languages that are widely taught as second languages such as English, French, or Spanish have standardized, prescribed "correct" forms that are published in dictionaries and grammars, that can be taught and tested. However, many Indigenous (and other) languages do not have a prescribed standard.

Where there is not a standard, whose language does the teacher teach, and whose language do the learners need to speak in order to do well on assessments? Variation is inherent in all languages, whether it is regional variation reflected in different dialects, or variation over time, resulting in more and less conservative forms of the language, sometimes divided across age groups. Indigenous teachers, trained in western universities, may adopt a purist language ideology, focusing on correctness and a standard language. Inuit scholar Palluq-Cloutier's (2014) research with Inuit teachers in Nunavut, for instance, identified their general support for identifying a standard Inuktitut to teach, although they had differences of opinion about which dialect, or a combination thereof, should be the standard, as well as at which level (regional, territorial, etc.) the standard should apply.

However, a focus on correctness is not the only option. Linguists and teachers working with and teaching the endangered Corsican language in France tackled the question of how to teach and assess a language that had multiple dialects and no standard by adopting a polynomic standard, in which "good Corsican" is "negotiable, relative, and multiple" (Jaffe, 2003, p. 518). The intent was to focus on unity in diversity, community, identity, and belonging. Linguist Jaffe's (2003) analysis of these efforts showed that valuing, acknowledging, and teaching diverse forms of the language as equally correct is difficult, especially in a context of language loss where few speakers are highly proficient, and

[1] Inuttitut is a dialect of the Inuit language, spoken in Nunatsiavut. The language is more broadly referred to as Inuktut, with specific dialects named in each region of the Inuit homeland.

even fewer have knowledge of multiple dialects that would allow meaningful use of multiple varieties in the teaching and learning.

Where languages are undergoing attrition—reduction of the phonological, morphological, and syntactic complexity of a language due to language loss—the question of whether you teach, and assess, the language based on how people are actually speaking—the attritioned forms—or based on the more complete, more complex, older forms, is also raised. For example, in our work with Inuttitut in Nunatsiavut, we questioned whether our assessment should look for use of the dual grammatical marking, used in conservative Inuit dialects along with singular and plural markings, or accept the plural marking as correct when referring to two or more, as is common usage in Nunatsiavut.

Another option, rather than focusing on accuracy and language as a skill, is to focus on language as practice and functional competencies. In other words, ask "What are speakers able to do with the language?" Learning language, for many learners, is about learning culture and practicing being a member of a particular community. Brian Street (2003) writes, "literacy is a social practice, not simply a technical and neutral skill; that it is always embedded in socially constructed epistemological principles. It is about knowledge: the ways in which people address reading and writing are themselves rooted in conceptions of knowledge, identity, and being. It is also always embedded in social practices. . ." (pp. 1, 2). This is also true of language, overall. In many Indigenous language learning contexts, the goal is creating new speakers of a language, and this requires teaching (and assessing) all forms of language as culturally situated practices, not just isolated skills. Ojibwe scholar Patricia Ningewance's (2020) guide to teaching an Indigenous language, for example, includes concrete examples of lesson plans, with activities and assessment guides, which specifically target language learning as part of cultural practice and community participation. Melissa Borgia (2009), working with an Onön:dowaga: (Seneca) language and cultural school in New York State, also found that the most promising Indigenous language teaching and assessment practices are those which emphasized authentic, practical uses of the language.

Where Indigenous languages programs have developed benchmarks for learning and/or proposed and implemented assessment strategies, many of these are indeed focusing on functional and cultural learning outcomes. For example, the Northwest Indian Languages Institute (2010) has developed a series of benchmarks for Indigenous language learning that are focused on what the learner can do with the language. Similarly, the NETOLNEW language learning assessment tool (McIvor and Jacobs, 2016), designed for adult learners in community-based programs, asks learners to self-assess based on what they can "always," "mostly," "sometimes," "rarely," or "not yet" do when using the Indigenous language. The Northwest Territories (2021) Indigenous language learning benchmarks explicitly acknowledge an "observing and silent phase" (p. 1), where learners may participate in Indigenous language interactions appropriately, without yet speaking the Indigenous language.

Some school-based programs explicitly incorporate community-based assessment activities. For example, Alberta Education's 9-year Cree Language and Culture Program includes "to form, maintain, and change interpersonal relationships" as a Grade 4 learning outcome, and the related assessment task is to greet, welcome, and seat Elders at a community event, while also introducing oneself (Alberta Education, 2008, p. 84). These assessment methods, paired with functional learning objectives, directly relate to community learning goals of producing speakers who can and will use the language in community. They are flexible enough to allow for language variation, i.e., different ways of using the language in order to reach the same goals.

Accuracy-based and functionally-based assessment are not necessarily mutually exclusive. Assessment practices can, and many do, assess both simultaneously. Effective communication requires a certain amount of accuracy and focus on form. However, assessment practices that focus on language in real use situations pay attention to how accurate pronunciation, vocabulary, and grammatical structures support effective communication (cf. Edmonds et al., 2013).

Assessment of Indigenous language learning does not need to target an individual's one-time, independent performance. Walkie Charles, a Yup'ik scholar, models dynamic language assessment in his Yugtun classroom. His assessments include interaction, with opportunities for learners to rethink and recast what they are saying, as an individual could in everyday conversation (Charles, 2011). He teaches new Yugtun teachers to draw on Yup'ik values, knowledge, and place to dynamically assess K-12 Yup'ik language learners (Coles-Ritchie and Charles, 2011). Different ideologies of languages, and the purposes for which they are learned, impacts learning goals, targeted outcomes, and the ways in which these outcomes are assessed.

In addition to considerations of which aspects of language should be assessed, and how these should be assessed, the endangered context of many Indigenous languages raises the question, who are the appropriate assessors of Indigenous language proficiency? In many cases, Indigenous language teachers are themselves language learners, and the fluent speakers—sometimes only Elders—are not necessarily trained in teaching or assessment methods (e.g., Moore and Tulloch, 2020). A few strategies that are being used are helping learners to self-assess (e.g., NETOLNEW self-assessment tool, and self-assessment templates in the Alberta 9-year Cree language and culture program); providing clear benchmarks for teachers who are learning alongside their students, and engaging Elders, community members, and other language experts who may not work in the language program *per se*, in the assessment process.

In Haynes, Stanfield, Gnyra, Anderson, and Schleif's 2010 review of promising practices in the assessment of Indigenous languages, the authors conclude:

(1) Local cultural practices should be an integral part of assessment design and delivery.
(2) Assessment tasks, methods, and scales should be adapted to the wide range of learners and contexts.
(3) Despite the challenges associated with assessment design, assessment implementation and adaptation should ultimately be community-driven (p. 3).

The contexts in which Indigenous languages are being learned vary greatly, but fall within a general international framework and history of the oppression and suppression of Indigenous languages, resulting in language endangerment. Teaching and learning Indigenous languages effectively is a pressing need toward community goals of revitalizing, strengthening, and reawakening languages. Appropriate assessment strategies and formats are a key component of this teaching and learning (Ignace, 2016, p. 43).

TEACHING AND LEARNING INUTTITUT IN NUNATSIAVUT

Nunatsiavut Inuttitut teachers experience the above challenges in Indigenous languages assessment and are experimenting with community-based strategies for addressing them. A curriculum review in 2019–2020 opened doors for discussion of and incorporation of community-based strategies in Inuttitut learning and assessment in Nunatsiavut, as described below.

Nunatsiavut is made up of five Inuit communities on the north coast of Labrador. Inuit are an Arctic and sub-Arctic Indigenous people whose homeland stretches from Greenland to Alaska, and includes four land claims regions in Canada: Nunatsiavut, Nunavik (Quebec), Nunavut, and the Inuvialuit Settlement Region (Northwest Territories). About 90% of Nunatsiavut's population, roughly 2,300 people, are Inuit. One in four Inuit in Nunatsiavut are able to carry on a conversation in Inuttitut, but these are mainly older adults, concentrated in Nunatsiavut's two most northerly communities (Statistics Canada, 2016).

For centuries, Inuit passed on Inuttitut to their children as a matter of course, as children spent their days with extended family, and the evidence of the children's learning was their ability to communicate effectively with the people around them. The first schools were established for Inuit children in the north coast of Labrador, by Moravian missionaries in the late 1700s (Procter, 2020). Missionaries taught in Inuttitut, the children's mother tongue. When Newfoundland and Labrador joined Canadian Confederation in 1949, the province mandated obligatory English-only schooling (Procter, 2020), and deliberately suppressed Inuttitut in Inuit children's schooling.

English-only led to the rapid decline in knowledge and use of Inuttitut (Mazurkewich, 1991). Children were spending the bulk of their days in another dominant language, and English started to replace their mother tongue (Dorais and Sammons, 2002). The educational policy caused a population shift which put Inuit and Settler families in closer and more sustained (and often antagonistic) contact, which also led to the decline of Inuttitut.

Co-author Sarah Townley described how these kinds of experiences as a student, and then as a young mom, in English-dominant schools and communities, negatively impacted Inuttitut's vitality:

> . . .So a lot of that happened, and for me, I had my kids, I didn't want to speak in Inuttitut. It's because I was shamed of it, right? It seemed that English was our own - our main language or something. . .So a lot of that happened in all the communities. So a lot of them [kids] are passive bilingual, like they are able to understand, but they just can't get the Inuttitut word out. So I calls it "just sleeping right now." It's going to be waking after a while now. Like when they want to start learning Inuttitut again, I know that it will be woken up, so they will be able to speak. . . .'Cause like if you really want to learn Inuttitut, you could. . . Like even though I never spoke to my children, when they were growing up, I'm able to now with my grandchildren, so it makes a big difference (Sarah Townley, Northwest River, NL, 2014, personal communication with Shelley Tulloch).

The K-12 Inuttitut program emerged amidst efforts to reverse "the strong drift toward English" (Andersen and Johns, 2005, p. 202). Inuttitut was reintroduced in schools through the initiatives of the late Dr. Beatrice Watts, who was the first north coast Labradorian to earn a university degree and the first Labrador Inuit teacher. Starting in the 1960s, she developed an Inuttitut program in Nain, the most northerly Nunatsiavut community, and the one in which Inuttitut is still strongest. She was eventually hired to support Inuttitut programming, teacher training, and materials development for all of what is now Nunatsiavut. She guided the development and implementation of what was known as the First Language Program, starting in 1987 (Johns and Mazurkewich, 2001, p. 361). The Inuttitut First Language Program was offered for Kindergarten through Grade 3 in Nain, and for Kindergarten and Grade 1 in Hopedale (the next largest community, and the community with the next largest proportion of Inuttitut speakers, next to Nain). It is unclear how many of the children entering the program in its early years would have been learning Inuttitut at home (making it truly a first language program). Although the program is called "Inuttitut First Language," it appears to have been offered as an immersion/second language program, with the goal of revitalizing the language that was no longer widely used in Inuit homes. Teachers' accounts of the Inuttitut First Language program describe it as essentially the English language curriculum, which they were asked to translate and deliver in Inuttitut.

Beyond the first language/immersion program offered in the early years in two communities, which have now dwindled, Inuttitut was offered as a subject in schools in Nain, Hopedale, Makkovik, and Rigolet for between and 20 and 40 mins a day for primary grades and three 40 min periods in a 6-day cycle for grades 4–9. This core Inuttitut program continues to this day.

The comments from two retired Inuttitut teachers who taught Inuttitut in Nunatsiavut for 20 and 22 years, respectively, suggest Inuttitut was an *ad hoc* addition to the schooling, and the teachers had little in the way of materials, curriculum, learning benchmarks, or training in second language learning and assessment. As one retired Inuttitut teacher said:

> I started teaching in the fall of '75, and there was nothing there then. We had to do everything, basically from scratch. There was no curriculum at the time, so everything was whatever we made up, and whatever we chose to. . . whatever we chose to teach, or whatever we chose to develop. There was nothing when we first started. It was just right from your head. Do the best that you can. . .. They said okay we'd like you to come in and teach Inuttitut. Okay. And just do whatever you think the kids should learn. You know? Although there was some time that you would

> ask the other teachers, the English teachers, what should I be teaching? We sort of got guidance that way. What can we do? What would be helpful? For us, what would be helpful for us to teach them? Give us some ideas please because we didn't have anything [retired Inuttitut teacher, Nunatsiavut, quoted in Moore and Tulloch (2020), p. 17].

Another retired teacher described her experiences this way:

> I didn't know what to do. I just had to follow the teachers. What do I start from? I had to learn my own way, I taught myself. I saw everyone doing this and doing that, no one told me to do this and do that, but I happened to just mimic them in this way. . . She told me to read books with them, watch them to make sure they say the right words in reading. But some of them can be. . . not mixed up. . . you know what I mean. Have fun with them, read with them. Make them understand. That's what we did.

> Inuttitut is the most important to me, because mother tongue is the most important to speak to the kids, to understand it, to speak it. *Kanuiven*? How are you? Short little things first. And I used to go class to class to look at what they're doing, because they didn't teach me. They didn't tell me. I had to open up myself to be as a good teacher is supposed to be and I started learning [retired Inuttitut teacher, Nunatsiavut, quoted in Moore and Tulloch (2020, p. 17)].

About 55 years after Newfoundland and Labrador joined confederation and schooling was taken over by the province, an Inuit regional government (Nunatsiavut Government) was established in 2005 through the Labrador Inuit Land Claims Agreement. The Nunatsiavut Government has a mandate to preserve and promote the Inuttitut language. Through the Labrador Inuit Land Claims Agreement, the Nunatsiavut Government has the right to fully take over Nunatsiavut schools. For the moment, it is choosing to support Inuttitut and Inuit cultural education in the region by providing funding to the Newfoundland and Labrador English School District (NLESD) to deliver a K-12 Inuttitut language program and an Inuit cultural skills program. The Nunatsiavut Government also partnered with Memorial University to develop and deliver the Inuit Bachelor of Education Program (IBED), which offered embedded language learning and training in the linguistic description and analysis of Inuttitut.

Inuttitut education has come a long way in Labrador, from being the language used in the community and in the schools, to being completely marginalized, to now being rejuvenated and strengthened. The school has become a focal point of Inuttitut learning. New technologies, such as Rosetta Stone and other computer applications are making it easier to support language learning, even when the teacher is not fluent. However, as with all technology, the Rosetta Stone is quickly becoming dated (as it is CD-ROM based and many new computers are without the appropriate drive), therefore causing it to be used less frequently. Ilisautiliuvik SuliaKapvinga Curriculum Centre staff, who are Nunatsiavut Inuit, are actively working on materials and curriculum. Linguists, Inuit teachers, and community members have collaborated to make stories recorded by local speakers accessible to intermediate and advanced learners as pedagogical materials (Dicker et al., 2009). However, leaders, teachers, curriculum developers, parents, students, graduates and other community members are concerned that knowledge and use of Inuttitut continue to decline. At the time of the K-12 Inuktitut Curriculum Review, described below, decision-makers in the school were asking, "what are the outcomes of our K-12 Inuttitut program, and how can we improve them?" This article focuses on the aspects of the K-12 review related to assessment, with particular attention to the role that all members of the community—leaders, teachers, curriculum developers, parents, grandparents, students, graduates, and others—play, or could play, in Inuttitut learning and assessment.

NUNATSIAVUT'S K-12 INUTTITUT PROGRAM EVALUATION

In 2018, the Nunatsiavut Government initiated an evaluation of the current K-12 Inuttitut program in collaboration with the Newfoundland and Labrador English School District. Sylvia Moore (Memorial University) and Shelley Tulloch (University of Winnipeg), who are non-Inuit, university-based researchers co-led the evaluation, assisted by Inuit Bachelor of Education student Joanne Voisey. Sarah Townley (Retired Inuit Program Specialist, Goose Bay) and Joan Dicker (Retired Inuttitut Teacher, Nain) co-led and implemented the Inuttitut proficiency assessment component of the evaluation. The review of Nunatsiavut's K-12 Inuttitut program took into account the ways in which schools are currently teaching and assessing Inuttitut as a second language, as well as the broader context of language revitalization through Inuttitut in the schools. It attempted to answer the questions, "what is working well in teaching and learning Inuttitut in Nunatsiavut area schools and where are the gaps?" and "what is the current Inuttitut proficiency of students in Nunatsiavut schools?" Our research approach was developed in consultation with the Nunatsiavut Government and the Newfoundland and Labrador English School District, and received ethical approval from both, as well as from Memorial University's ethics committee.

The curriculum evaluation and proficiency assessments were collaborative and formative as the team worked with the Nunatsiavut Government Education Division staff, the Inuit Program Specialist, Ilisautiliuvik SuliaKapvinga Curriculum Centre staff, Inuttitut teachers, principals, students, and community members. The process was informed by Indigenous research methodologies, which privilege relationship, conversation, and holistic understanding. Our work originated in the expressed needs of the Nunatsiavut Government, which advised on and approved research methods. The individuals who conducted interviews, observation, and assessments have established and ongoing relationships with the Nunatsiavut communities and many of the participating teachers, principals, and local families. Our work relied on oral traditions through conversations with teachers, parents, and students and valued the thoughts, opinions, and lived experiences of those who participated. Observations, individual interviews, and community forums were open-ended, and created spaces for participants to tell their own stories of how

they were experiencing K-12 Inuttitut education. Conversations addressed the history, context, and motivation of K-12 learning as well as pedagogy, materials, and outcomes. We engaged with communities before, during, and following the research, in particular with the Inuttitut language teachers and the Inuit Program Specialist, as well as with participants who checked their transcribed interviews and approved any quotations used in the report. We had intended to return to communities for in-person presentation and checking of preliminary results, but were not able to due to COVID-19 travel restrictions at the time we were finishing our report. Our team continues to work with Inuit teachers in professional learning to develop and share ideas and practices that emerged in the report. The final report was approved by the Nunatsiavut Government, which is currently working on its recommendations. Respect of Indigenous methods and Nunatsiavut ownership of the project from inception through reporting and implementation is essential as Inuttitut learning is part of Inuit sovereignty and self-determination.

Our team visited all Nunatsiavut area schools in the five Nunatsiavut communities in the Winter/Spring of early 2019. All currently practicing Inuttitut teachers and Ilisautiliuvik SuliaKapvinga Curriculum Center Staff (14 total), as well as seven former Inuttitut teachers participated in individual interviews and sharing of materials. All community members were invited to attend facilitated community discussions about K-12 Inuttitut teaching and learning through posters, radio announcements, and social media. Due to weather and other factors, a total of 11 current students, seven former students, and 19 parents and community members attended these meetings.

Data collection included a review of curriculum materials, teaching resources, observations of the language environment in the schools, individual interviews, community forums, and systematic language proficiency assessments, described below. For the observational component, Sylvia spent time with the Inuttitut program specialist, curriculum developers, and teachers in the Ilisautiliuvik SuliaKapvinga Curriculum Centre and teachers' classrooms. The staff and teachers guided her through the materials they were using, and with permission, she took some photos. During her 2 or 3 days in each school, Sylvia also paid attention to Inuttitut and English used over the PA system, on bulletin boards, and others. The curriculum materials collected were analyzed to identify which learning outcomes they targeted, which activities and materials were proposed, and which assessment tools or practices were suggested.

Interviews and community forums were open-ended conversations, following general themes. We asked Inuttitut teachers and curriculum developers about their experiences teaching and learning Inuttitut, what learning outcomes they were targeting and observing, their perceptions of the materials, resources, and strategies being used in K-12 Inuttitut teaching and learning, and their opinions of opportunities and challenges for K-12 Inuttitut teaching and learning, including the broader community context of Inuttitut revitalization. In the facilitated community discussions, themes included experiences and perceptions of K-12 teaching and learning of Inuttitut, desired and observed Inuttitut learning outcomes, and students' and parents' observations of successes and challenges in students' Inuttitut learning. Conversations took place in English and were audio recorded. Transcribed interviews were analyzed thematically by the university-based team members, who checked back regularly with the community-based team members and the teachers and curriculum developers to corroborate and expand on emerging themes. The consent process was described orally, as well as in a written consent form, which participants (or their parents/guardians, for minor) signed. Quotations from participants are used with consent, throughout the report and in thematic sections of this manuscript. Longer narratives from the two of the teacher participants who are also co-authors on this manuscript, are presented at the beginning of the results section to reflect the narrative nature of the research, and to ground the following thematic sections in a more holistic view of teaching and learning, from their experiences. The inclusion of named narratives by co-authors anchors ideas to faces and names in a way that gives the results credibility to Nunatsiavut readers, while keeping the remaining contributions anonymous in order to protects freedom of critical expression.

The Inuttitut proficiency assessments were conducted with students in Grades 3, 6, 9, and 12 in all five Nunatsiavut communities in the Fall of 2019. Joan Dicker and Sarah Townley, two retired Inuttitut teachers who are fluent in Inuttitut and hold Masters degrees in Education, conducted the assessments. Joan did the assessments in her home community of Nain, and in Makkovik where she has extended family. Sarah conducted the evaluations in Hopedale, Rigolet, and Postville—communities in which she is well known from when she used to travel as an Inuttitut curriculum consultant. Proficiency assessment included a self-assessment tool in which they indicated "agree" or "disagree" in response to a number of statements about Inuttitut learning and use. The assessors went through these forms orally with the students as a group, and students wrote their response on their own. The assessors also did a qualitative observational/interactive assessment with all the Grade 3, 6, 9, and 12 students who agreed, and whose parents had agreed, to participate in the assessment. Results from both were summarized and reported quantitatively. Our experiences in the development and delivery of these assessments, as well as what they were able to tell us (and what they were not able to tell us) about promising practices in Indigenous language assessment is described in more detail below.

Full results from all aspects of the K-12 Inuttitut Review are included in the 202-page Final Report submitted by Sylvia Moore and Shelley Tulloch to the Nunatsiavut Government in May 2020. In this article, we contextualize and analyze the results specifically as they relate to community involvement in the development, delivery, and assessment of K-12 curriculum and learning.

MADE-IN-NUNATSIAVUT TOOLS FOR ASSESSING INUTTITUT PROFICIENCY

The Inuttitut proficiency assessment developed and implemented for the K-12 Inuttitut review had multiple interrelated purposes. It provided a snapshot of where learners are currently at in

their Inuttitut learning for the purpose of designing curriculum. It also provided insight into which types and degrees of proficiency the students are acquiring (or not). The process of designing, implementing, and reflecting on the effectiveness of the proficiency assessment tools was also a step in the process of understanding which methods of assessing Inuttitut learning outcomes might be appropriate in Nunatsiavut.

In developing the assessment, we considered other stand-alone tools that had been developed in similar contexts and/or with similar goals. We wanted the assessment process to be comfortable for the assessors and the learners, and for the learners to have a chance to show what they know and are able to do in Inuttitut. We also needed a process that was time efficient and could be completed without requiring too much of the assessors', students', and school's time.

We settled on a two-stage approach that combined self assessment with observational/interactive assessment. Proficiency indicators were adapted from benchmarks developed for K-12 Indigenous second language learners, including those developed by the Manitoba Education and Citizenship and Youth (2007) and Northwest Territories (2019), as well as those summarized in Haynes et al. (2010) review of Indigenous language learning assessment. We took into account what Sarah and Joan knew the students were likely to have had an opportunity to learn (or not). We workshopped the tools, once developed, with Inuttitut teachers in a professional learning meeting to get their feedback prior to implementation.

Self-Assessment

The self-assessment tool was modeled on a strengths-based "can do" tool developed by Indigenous scholars Onowa McIvor and Jacobs (2016), and influenced by promising practices in Indigenous second language assessment. The tool included 49 statements which addressed learner motivation and opportunities for learning as well as language proficiencies in four categories: receptive (e.g., understanding; non-verbal responses), interactive (e.g., conversation), extended productive [e.g. literacies as broadly defined by Balanoff and Chambers (2005)], and sociocultural (e.g., greetings, cultural vocabulary) [categories are adapted from Haynes et al. (2010)]. Sarah and Joan went through the statements with each class, asking the students to indicate for each item "no" (the statement did not yet describe them), "some" (the statement somewhat described them), or "yes" (the statement was true of them). Although we had hoped to give every Nunatsiavut student an opportunity to participate, school cancelations, scheduling, and other limitations resulted in only 125 students responding. These were primarily from Grade 3, 6, 9, and 12, and from all five Nunatsiavut communities.

The self-assessment tool was easy to administer and to analyze results. We found that it was helpful in identifying overall trends in proficiency being obtained through the current K-12 Inuttitut curriculum. For example we found, and it was corroborated in the interviews and community forums, that the proficiencies being achieved tend to remain at the level of vocabulary and memorized, predictable utterances, that receptive proficiencies were higher than interactive proficiencies, and that students had difficulty moving from memorized phrases to spontaneous speech. The proficiencies that students are acquiring with most confidence are literacies and school-based practices, including sound-symbol correspondences in the Labrador Inuttitut writing system, reading familiar words, singing memorized songs, reciting memorized prayers, etc. (Moore and Tulloch, 2020)[2].

In the section that asked about learning opportunities and motivation, we also observed that a majority of students felt that they had some opportunity to use Inuttitut outside of school, in the community, with friends, or at home, but that they were not always taking the opportunity when it was there. For example, 86% of students agreed ("yes" – 42% or "some" – 44%) with the statement "I hear Inuktitut around the community", whereas a lower 70% agreed ("yes" – 28%, "some" – 42%) with the statement "I speak Inuktitut outside of school". We interpreted this as showing that there is a foundation upon which to build and strengthen home and community use of Inuttitut. The Inuttitut teachers suggested that the self-assessment tool, or a similar one, could be made available more widely to Nunatsiavut family and community members to stimulate reflexive thought and family dialog around language, and possibly to support learners and families in setting some of their own goals for language learning based on the functional descriptors in the tool's statements.

The self-assessment tool had a number of limitations. The statements have a range of interpretations in which different learners with comparable objective proficiency might rank themselves quite differently (for example, the statement "I use Inuttitut words for family members" could reflect a basic proficiency of referring to one's parents with Inuttitut terms, or a more advanced proficiency of naming all extended relatives with the appropriate Inuttitut kinship terms.) Some Inuit pre-service teachers in the Inuit Bachelor of Education program also questioned the use of self-assessment for the purposes of grading or measuring achievement because they saw it as contrary to Inuit values of humility and not self-promoting.

Interactive Assessment

The second assessment tool was an interactive assessment based loosely on the Northwest Territories (2019) oral assessment of Indigenous language learning. The interactive assessment was administered one-on-one with the assessor and the student, and each assessment lasted about 10–20 mins. The assessors told each class, as a group, what to expect in the assessment, and then administered the assessment in Inuttitut, assessing students one-by-one in a private area. Again, the schools in all five Nunatsiavut communities participated, with a focus on students in grades 3, 6, 9, and 12. A total of 124 students were assessed.

This assessment included greetings and introductions between the assessor and the student, viewing and responding to a picture from an Inuit illustrator (pointing, naming, question-answer, and basic story-telling), basic reading (word recognition and pronunciation), and basic writing (translating words from English, filling in the blanks in an Inuttitut text) tasks. These tasks reflected what the assessors, experienced Inuttitut teachers, felt the students might have had an opportunity to learn in

[2]Complete results from the self assessment questionnaire are provided in Moore and Tulloch (2020).

school. The assessors had a grid of proficiency indicators in each category, from which they assigned each student a numerical score between 10 and 18 [based on Northwest Territories (2019) oral proficiency scale], categorizing students as emergent, beginner, low intermediate or high intermediate/low advanced speakers, with various gradients within each category.

The assessment was able to give an overview of proficiency in each class grouping. For example, results showed most students in Grade 3 and Grade 6 at the emergent to beginner level of Inuttitut, with some achieving low to high intermediate proficiency by Grades 9 and 12. Results showed general trends of higher average proficiency at the higher grade levels, as would be expected, and they also showed a great deal of variation in proficiency from student to student, and from community to community.

Sarah and Joan both said that they found it very difficult to assign a number to the speakers. As Joan wrote following the assessment, "I found it really difficult to grade students by the scale from 10 to 18 as some students may be able to do really well in some areas [more] than others." In particular, both noticed that (some) students were either unable or unwilling to speak out answers in Inuttitut, even if they understood. Sarah summarized her observations of students in one of the strongest language communities saying, "They tried their best in responding back in Inuttitut, but more were comfortable in responding in English even though they understood a lot." Similarly, Joan said, "There are some students who are too shy to be heard trying to speak Inuttitut, even though I know they know it."

The implementation of this tool went smoothly. A part of its success is that it was administered by Joan and Sarah who are well-known, empathetic faces in the communities, who are proficient Inuttitut speakers and highly experienced Inuttitut second language teachers. Such individuals are rare in Nunatsiavut; finding someone with their language proficiency and teaching experience could be difficult to do this kind of one-on-one assessment on a regular basis.

A challenge in coming up with the proficiency indicators and both the assessment tools is that the kind of teaching and learning that is happening in the schools may not be the teaching and learning that Nunatsiavut communities really want to see in their children and youth. As the review of curriculum materials revealed, a lot of the school activity is focusing on vocabulary, pronunciation, colors, memorized phrases, etc., rather than interaction.

When developing the tool, we felt a tension between assessing based on what the students would have had a chance to learn in school (where they could experience success on the assessment), versus what the learning goals might be in a renewed K-12 Inuttitut curriculum that focused on interaction. Our understanding of what the children would have had a chance to learn was shaped by Sarah and Joan's decades of experiences teaching in the schools and developing Inuttitut curriculum, our initial consultations with Inuttitut teachers prior to the research, and data that had been collected in community forums up to that point (see method above, and results below), and our understanding of a desire for communicational outcomes was shaped by initial consultation with the teachers, and with the Nunatsiavut Government. These challenges point to the need and opportunity for the Nunatsiavut Government, the Ilisautiliuvik SuliaKapvinga Curriculum Centre and the Inuttitut teachers to work closely with each other and with families and communities to articulate goals for the K-12 Inuktitut, from which teaching practices and assessment processes can flow.

TEACHERS' EXPERIENCES WITH INUTTITUT LEARNING TARGETS, TEACHING, AND ASSESSMENT PRACTICES

One of the findings of the K-12 Inuttitut curriculum review is that targeted outcomes are not yet explicit in the K-12 program. Jodie Lane, Nunatsiavut Government's Director of Education and a parent of children learning Inuttitut in Nunatsiavut area schools, articulates that from her perspective the primary goal for the K-12 Inuttitut program is, or should be, creating new speakers, and a secondary goal is creating a passion and drive that will fuel language learning and revitalization:

I want speakers, and if we can't get speakers right away, I want the passion and the enthusiasm to come back. To make the way of learning better so that kids want to go [to Inuttitut class]. Not just got to go. . .. Ready to go, and keep on practicing and encouraging and talking to each other outside of school [quoted in Moore and Tulloch (2020, p. 21)].

Curriculum developers, teachers, parents, and students corroborated that they feel the goals of the core Inuttitut program should be conversation, communication, and creating speakers, but there is a disconnect between the big picture goal of creating speakers and any existing curriculum. In fact, most teachers for various reasons were not using existing materials and program guidelines. Either they are not aware it exists, or they find it difficult to use, or ill-adapted to their particular students' needs. This is consistent with some of the challenges identified in the literature on Indigenous language teaching and assessment (e.g., Okemaw, 2019). Some teachers, as a result, are instead creating lessons and materials and assessing on their own, using their own experiences and knowledge, and drawing in local values and communities. The experiences of two Inuttitut teachers from different communities are presented here as illustrative of the range of experiences among teachers. These two teachers are recognized by others in their school and community as having some success in supporting language learning, participated in the review and the consultations prior to and following, and have joined with the team as co-authors on this article.

One Teacher's Story – Ellen Adams, Rigolet, and Nunatsiavut

Ellen Adams is an Inuttitut teacher in Rigolet, a Nunatsiavut community that had a distinctive and now highly endangered dialect. Even among the older generation, there are very few if any mother tongue speakers remaining. She is a fluent speaker who has completed most of the course work toward a Bachelor of

Education degree. She taught all the Inuttitut classes in the Rigolet school for many years and is widely respected for the work she does revitalizing Inuttitut.

When the research team visited Rigolet, she demonstrated the Inuttitut teaching resources that she uses. Some of these are her own original materials, and some are materials from Nunatsiavut's Ilisautiliuvik SuliaKapvinga Curriculum Centre which she has personally adapted into the Rigolet dialect. Her materials are organized by themes and grades. She also has created learning centers for younger students.

Ellen described her experiences with Inuttitut K-12 teaching targets, materials, and assessment saying:

> There's not much of a curriculum. There really isn't. . . nothing to talk about. It's more lessons than an actual curriculum guide. For my K and 1, I use a book that has colors, numbers, animals, shapes, stuff like that. And I build off of that. And 2–3, I use the new Inuttitut picture book. . . It's pretty much the same thing as the K and 1, except it's more advanced and I add a little more detail to it. Then the 5 and 6, I usually flip between those two. I might do all about animals 1 year, and another year I'll do about families. So that we get all the details there. 7, 8 and 9 changes. There's nothing. . . no set guidelines to follow, which makes it hard.
>
> I usually teach just K-9 core Inuttitut, and about every 3 years, I teach high school Inuttitut. They have to have it to graduate. So every 3 years, I teach Grades 10–12, all together for Inuk.
>
> I'm going by the skin of my teeth. If there was some book to tell us that by the end of this grade, you need to know this, I would love it. If you could develop something like that, it would be nice. But until that comes out, I'm just going to stick with this. Because I started with this one and it builds on to this one, and whatever I'm doing has to build on that one and build up again. I've got a system. It seems to work. But it's in my head, I haven't got it written down.
>
> In Grades 7–9, we have modules and we have to pick out so many expressions in each module that they have to use in school and out. It is part of their. . . I build it into their curriculum. It's supposed to be used everywhere. And they'll say "Miss, I said this today to this one" and "I said this today to that one."
>
> We try to get Inuttitut out as much as we can. We have a spring concert coming up next week. We've got kids preparing for that. The girls are going to read speeches. The students in Grades 5 and 6 are doing a song. They picked the song themselves of course. What I like to do is take the music [that's available online]. . . kids will look at the videos, but there's no connection. So we'll take the song and we'll make our own video. So that you can relate to it.
>
> I've done events myself where at Christmas time, we have a grandparents' tea. The kids invited their grandparents for something to drink. We sang Christmas carols and had a lunch. . . We sung Christmas carols in Inuttitut. A lot of English too, but we were together.
>
> This year, for my success stories, they'd have to be that I took two kids to the Inuttitut speak-off who don't even take Inuttitut. They're in high school and they're not offered it this year, but they wrote their own speeches and went and did a wonderful job.
>
> More professional development would be nice because we need to get together and share what we're doing with each other. We [went to other regions of Inuit Nunangat] twice since I've been working. It was really good, and one time a couple years ago, we had a meeting in Nain, where teachers from [other northern regions] came down and shared with us. That was really good. I loved that one. We went to Kuujjuaq, and we wanted to see how they kept it. It was really good.

Ellen is a very experienced teacher and an Inuttitut speaker who has developed her own mental system for evaluating students. She teaches all of the Inuttitut classes and knows all of the students, so is somewhat able to dynamically assess students and teach to their respective strengths and needs. Although there is next to no contextual support for Inuttitut in Rigolet, and Ellen finds it difficult to recruit Elders to come in and work with her class, she intuitively involves the community in her students' learning, and in their demonstration of what they have learned through concrete communicative events, from an Elders' tea to a formal speech competition (one of the favorite events throughout Nunatsiavut). Her experiences point to a desire for and felt need for Inuttitut learning to be anchored in the community, and some of the ways in which she involves community to create authentic contexts for language use and assessment.

Another Teacher's Story – Doris Boase, Hopedale, and Nunatsiavut

Doris Boase is an Inuttitut teacher with a different set of challenges and opportunities than those described by Ellen. She works in Hopedale, Nunatsiavut, where many of the older adults still speak Inuttitut fluently, and where students do have people outside of school with whom they can practice Inuttitut. Like most young adults in Hopedale, Doris describes herself as an Inuttitut learner, learning alongside her students. Doris has completed a Bachelor of Education degree in Memorial University's Inuit-specific B.Ed. cohort so has specific training to think outside the box and implement Inuit-specific pedagogies and assessment practices. She works within a team of four Inuttitut teachers who are fluent speakers, but who have limited teacher training. In her first year, she was assigned to teach the Grades 7–9 Inuttitut classes. In conversation and follow up email exchanges, Doris described how she approached assessment prior to learning, for learning, and of learning.

> My first approach is to find out where they're at with their language, where they think they should be, and what topics or concerns they'd like to have dealt with, with regards to their language. The biggest part was general conversation. They felt that they were nowhere near close to even conversing with each other. So that was my focus right off the bat.
>
> There's a routine that the grade 7 and 8s had before I entered it. And that was to do the Lord's prayer in Inuttitut, sing Jesus Loves Me in Inuttitut, and sing Labradorimiut in Inuttitut. I learned through our Labrador Inuttitut Training Program course that singing was a huge way of getting them to familiarize themselves with the language structure. So. . . and right now, I'm using songs to help them loosen up their tongues. I picked this song in particular because it was written by students in Hopedale in the late 1960's. So I'm using the language for their language as well as something that's culturally appropriate to them, because the whole song is about activities that happened in Hopedale at that time.

> The elders play a huge part. The kids aren't ready to be speaking to them in conversation, but they can draw from them... not just the language, but other cultural aspects. Because for me, the language encompasses everything in our culture. And I think that the teaching in Inuttitut classes should be the same. The language overlaps everywhere.
>
> There was good feedback when I took the grade 7 and 8s out to build an igloo. I did that as one of my Inuttitut classes. We did it over three classes, I think, and the community received it well. I know igloo-building is not part of the Inuttitut language, like formal instruction, but I've told people and I also told my grade 9 students that you might be in an Inuttitut-teaching classroom, but from me you're also going to learn the cultural values of being Inuk. With the igloo building, I was throwing some Inuttitut into it, but it wasn't the whole focus. Another part was that they were learning something from their culture, a shelter. And they were also learning respect for the person who was teaching to build the igloo.
>
> As an Inuk as well as an educator, I can understand and sympathize with how difficult it can be to formally assess a student's achievements as a learner of a second language.
>
> Inuit are hands-on learners. Traditionally, we learn by doing. Inuit ancestors were not tested with paper and pencil on the correct technique to lacing up a Kamutik (wooden sled). They never gave exams that determined their skill or progress in learning their mother tongue.
>
> Today, academics are based very much on paper. The ideal result of assessment for me would be giving a pass or fail. Today, however, percentages and numbers determine the success of a student. To accommodate the old and the new, I use both methods of assessment. Students are in ongoing assessment when it comes to language skills and comprehension. They are assessed on prior lessons, incorporating these into their current lessons. Repetition is important for learning a second language such as Inuttitut. You need to see it and hear it repeatedly to retain the information. Students are also given mini assignments and end-of-unit tests which are open-book tests. I do it this way so that learning Inuttitut is not stressful and so that formal testing does not deter them from wanting to learn.

In addition to bringing Inuttitut speakers into the school to enhance learning, Doris has also designed take-home language learning assessments that the students are to do with their families. Doris describes that her idea in these take-home assessments was to encourage families to use Inuttitut together at home, and to learn Inuttitut together. She also works in a school with strong leadership that supports a whole-school approach to Inuttitut learning, including morning routines in Inuttitut, posters around school, and whole school expectation to use Inuttitut phrases. Doris explains that she learned how to teach and how to assess through her formal training in the Inuit Bachelor of Education program, and through teaching role models in the Labrador Inuttitut Training program that she took concurrently: "A lot of the teaching I had... that we had from a couple of Inuttitut instructors specifically is how I approach my teaching and assessment." Her experiences also show the need for Inuttitut learning and assessment to be grounded in authentic communicational experiences, which include creating opportunities for students to engage with Elders and other community members as well as students and staff at the school in culturally relevant activities.

NEEDS AND OPPORTUNITIES FOR COMMUNITY-ANCHORED INUTTITUT ASSESSMENT

Ellen's and Doris' experiences, and those of other Inuttitut teachers point to needs and opportunities for developing and formalizing community-anchored Inuttitut assessment. Officially, the only standardized assessment of Inuttitut in the K-12 program are the report cards. Teachers indicate students' progress in three aspects of the Inuttitut program: communication in oral and written Inuttitut, use of language learning skills, and knowledge of Inuit cultures, using a 1–4 scale for grades K-6 and numerical/percentage grades for grades 7 and up. In conversation, teachers said they felt unsure how to evaluate students, often basing the assessment on the students' efforts or attitudes toward Inuttitut as the primary indicator of learning. They generally felt uncomfortable with the report card as decontextualized evaluation and suggested ways that they would prefer to collaboratively evaluate students, involving families and communities, or let students' performance and use of the language speak for itself. The following sections synthesize comments and observations from the K-12 curriculum observation that reflect communities', teachers', and students' perceptions of possibilities and promising practices in community-based assessment, supporting authentic language learning and building a community of practice around Inuttitut language use.

Community-Established Goals for Language Learning

In all aspects of the K-12 Inuttitut evaluation, students, parents, and other community members expressed strong motivation for the K-12 Inuttitut program to be part of revitalizing Inuttitut as an expression and reflection of Inuit culture and identity. Currently, the lack of (known) learning targets, benchmarks, and progressions in Inuttitut is a barrier, but it also reveals an opportunity for the Nunatsiavut Government, the Newfoundland and Labrador English School District, the Ilisautiliuvik SuliaKapvinga Curriculum Centre, teachers, students, and communities to come together to identify which language practices and aspects of Inuttitut are most valued, and which they want to target in a renewed K-12 Inuttitut curriculum. Community-established goals for language learning can help anchor learning in ways that will motivate K-12 Inuttitut learners, and that will make their learning success something to be celebrated in the whole community. Part of developing community-anchored goals for language learning might also include addressing whether the schools expect all students, in all communities, to hit particular learning targets in particular grades, or to whether a progress-based model is preferred [where students

move through similar benchmarks, but at their own speed, such as has been adopted in the Northwest Territories (2019)].

Assessment as Practice

One of the most effective, and motivating, ways to demonstrate language learning is to use it for the functions for which it was learned. The students, teachers, and community members mentioned different ways that the learners were invited to showcase their Inuttitut learning. As Ellen's and Doris' experiences demonstrated above, one strategy is to teach everyday phrases in Inuttitut like "Hello," "How are you?," "Thank you," "I'm sorry," "May I go to the bathroom?" etc., and to encourage students (and all teachers and staff) to use these throughout the school, possibly reporting back to the teacher or self-assessing on how frequently and willingly one was using known phrases.

Students affirmed that interactional approaches were effective for reinforcing and demonstrating their learning. One student explained:

> We had to learn how to ask to go to our locker in Inuttitut and to the bathroom, to get a drink of water, to sharpen our pencil, get our headphones. . . any other basic things like that. Every day things. . . To get our headphones, she told us what the saying was and put it on the door, so whoever needed their headphones would have to say that to get them. . . .She'd go around the room and she would ask someone and they'd answer in Inuttitut and then that person would ask that same question to the next person and on and on like that. . . .It used to be like are you feeling good today, or are you sick, something like that. Or like what's your name and then you would say _____uvunga, and then ask the next person. . . . It really was [effective], because it helped us with our speeches then. Introducing yourself, like Atelihai, and going on like that, our grade, and. . . our hobbies and everything [quoted in Moore and Tulloch (2020, p. 37)].

As Ellen and Doris explained, above, these interactional approaches can be expanded to inviting community members for an event, and having the students interact appropriately with them, in Inuttitut.

Teachers are also using performances—concerts, for example—as opportunities to invite the community in and demonstrate the students' Inuttitut learning. Parents and students said they found these motivating. A favorite event, mentioned across the schools, is the yearly Inuttitut Speak-Off in which high school students prepare speeches in Inuttitut (often written by the student in English, translated by the teacher, and then memorized by the student) and compete in a speech competition. The top students from school travel to one of the five Nunatsiavut communities to compete in front of community-based judges. The students, teachers, families, and judges all considered these an opportunity for students to demonstrate and be proud of their achievements.

In some schools, students are preparing written work that includes Inuttitut, and these are being displayed in the school. These are other examples where the students' functional use of Inuttitut can be a form of assessment.

Other teachers are incorporating Inuttitut into other subjects such as Art or Life Skills (Inuit Traditional Skills, such as skin preparation, sewing, tool making, etc.). Teachers described a former teacher who taught Inuttitut through using it in meaningful tasks:

> She wanted to make panitsiaks in the Home Ec. Room and speak Inuttitut while she was doing it. That kind of stuff. She wanted to go and take the kids to watch someone skin a seal and then take the seal meat and skin and come back and while she's doing all that, she's teaching Inuttitut too, right? She said that's how they do it up north and that was her goal [Quoted in Moore and Tulloch (2020, p. 44)].

The multi-modality in the approaches described is a promising practice in Indigenous second language learning (Parker Webster and John, 2013). The reading aloud, singing, and speeches are helping to develop strong sound-symbol correspondences and clear pronunciation of Inuttitut sounds and words. The comments from students, parents, and teachers raise the question, though, whether pronunciation and performance are being achieved as ends in themselves, without going the next step to creating speakers with spontaneous conversational proficiency.

Bringing Learning Into Homes and Communities

The events in the schools, and displays of children's work when parents visit the school, are some ways of involving parents in their Inuttitut learning. Comments from parents and students suggested that many are willing to be more engaged, either because they speak Inuttitut and can be resources for their children, or because they want to learn alongside their children. One Nunatsiavut parent, for example, told us, "I've sat up to the table and said, "*Kanuiven*" [How are you]? And they say, "What?" "*Kanuiven*?" . . .[They] should know to answer me, "*Kanuilaunga*." A former student agreed: "I would also like the students to teach their parents what they know. . . Language is such a complex skill to learn and when you do not have someone there encouraging children every day in their everyday setting it will not stick. It is up to those caregivers in each child's life to challenge them to speak."

Some Inuttitut teachers told us that observing students talking to each other and to Elders was what they considered the most useful form of assessment. Joan suggested, based on decades of experience, that talking to parents about what their children are doing with Inuttitut would also be a good assessment strategy:

Where you had to write down if they can master this, or if they improved or anything like that. . . .I didn't like to assess students like that. . . .I think I would rather speak with the parents, rather than writing it all down, because the report cards. . . I found they didn't evaluate or assess the students the way it should be [quoted in Moore and Tulloch (2020, p. 54)].

Involving parents and community in students' learning is a way to make the most of the limited language resources in the community. Not everyone wants to be a teacher, but fluent speakers and retired teachers, especially in Nain and Hopedale, told us they would be willing to be involved in the K-12 program. Teachers also told us that they find parents are willing to support and/or learn alongside their children.

Expanding the K-12 Inuttitut program outside the schools creates opportunities for authentic language use, and helps support the goal of creating a community of speakers who are using the language with one another.

Land-Based Learning and Assessment

One of the most frequently expressed desires of teachers, students, and community members was for more Inuttitut learning and assessment to take place on the land. Whether this means spring land camps or other outings at a distance from the school (such as the literacy camp Nunatsiavut sometimes holds), or just "outside" (such as when Doris' Grade 9 class learned to build an igloo), or in a simulated land experience in an Inuttitut tent in proximity to the school (as the Inuit language specialist suggests, below), teachers and learners feel that being outside, and on the land, creates more natural motivation to use Inuttitut.

In the K-12 Inuttitut review, one Inuttitut teacher said:

> In an ideal situation, if we want to learn Inuttitut, we need to get out of the classroom, and I would love to see a class or students going out on the land even if it's up on the hill. And only speaking Inuttitut to the best of their abilities, but having the space to speak English to support themselves. But if you want to go back to your roots, you have to go back to your roots. And leave all the schools [quoted in Moore and Tulloch (2020, p. 39)].

Another speaker added:

> Learning something they're going to be doing anyway – fishing, hunting, berry picking, cutting wood, whatever it's going to be. But bring the language into that. If you can apply language, it's going to stick, because that's what we know [quoted in Moore and Tulloch (2020, p. 39)].

A parent, former student, and pre-service teacher added this perspective:

> Learning is very individual for the different towns. . . . and a big thing is about the learning; genuine learning experiences in real life. So that the kids could see it right before them and hear it being talked about and maybe touching the things. Real learning experiences that way. And if it was culturally relevant, the lessons would stick better. Rather than just pencil and paper all the time [quoted in Moore and Tulloch (2020, p. 39)].

In Inuit communities, one of an individual's central relationships is to the land. Any opportunity to be on the land, and speaking in Inuttitut, reinforces the learning and the attachment to Inuit identity, community, and tradition (Mearns, 2017; Obed, 2017). An Inuit Program Specialist at the curriculum center expressed that while any interactive learning with Elders was desirable, being able to interact with Elders on the land was most effective:

> I think the reason why it's difficult to bring the Elders in [to schools], is because you're transporting one or two people into a school that's already set in the classroom. The ideal thing is to for the students to go to the Elders. . . in a tent, or in the gym, or out on the land for land-based learning. But that has to be prepared. It has to be organized. Make sure the elders are okay, depending on their age. The time of year is another thing. Ideally, fall would be better. Spring is the best thing. Summer is good as well. It's the temperature. And then you have. . . you know it's a lot of work to preparing these things unless we have an area where it's just set for Elders, and is always there. And you can go there. It's always prepared. There should be staff to do it all the time, year round. No matter what season. Whether it's outdoors, based around the center of a resort, or I don't know what you'd call it. If there was a center like that, even outdoors in tents or set up in an area with cabins, or. . . and it's still outside, it's land-based, but it's set and it's staffed. It's a dream. I think it's the way it would work, but right now, I think the possibly easiest way is to have them come into the school, because you're in the classroom, and you can meet with them. It would help, but 1 h is not enough, obviously. But it would help a little [quoted in Moore and Tulloch (2020, p. 39)].

On the land learning, for now, is labor-intensive for the teachers as they do not have an established site where they can take the students. Getting institutional permission to take the students out can be a logistical hassle. Teachers say they experience administrative resistance to land-based initiatives (cf. Obed, 2017). One of the recommendations from the participants in the K-12 curriculum review, reflected in the report, was the establishment of a permanent place where students could go and speak Inuttitut with Elders and community members, whether a camp, or even a tent on school grounds.

BEYOND K-12 – ASSESSING COMMUNITY-BASED LEARNING

School-aged children and youth are not the only Inuttitut learners in Nunatsiavut. Developing community-based assessment strategies also holds promise for supporting community-based language programming. Nunatsiavut's Torngâsok Cultural Centre (now the Department of Language, Culture, and Tourism) released the Asiujittailillugit uKausivut: Language strategy in May 2012, with the goals to: "increase the number of Labrador Inuttitut speakers; support the use of Inuttitut by all ages; [and] significantly increase the visibility of Inuttitut" (Torngâsok Cultural Centre, 2012, p. 6). In 2005, Catharyn Andersen and Alanna Johns described community-based initiatives that included a language nest program for preschoolers, adult learning programs, and train-the-trainer programs. Subsequent programming has involved Inuttitut coffee shops, where anyone can drop in and learn and practice conversational Inuttitut. Nunatsiavut's Department of Language, Culture, and Tourism's ongoing efforts to preserve, protect, and promote Inuttitut include non-formal learning programs such as the Master-Apprentice program, the Labrador Inuttitut Training Program, and Rosetta Stone online learning. It also supports community-based radio programming in Inuttitut, and provides translation services. A university-community partnership led to the creation of a community reference grammar (Johns and Nochasak, 2009) – a text that describes the structure of Inuttitut, specifically targeted to language learners. The Department of Language, Culture, and Tourism has recently released a new comprehensive language strategy.

One of the barriers to the continuation of community-based programming has been an inability to assess learners'

progress, and therefore to be accountable to funders and even the learners themselves. Collaboration in setting functional learning benchmarks for Inuttitut and strategies and community-anchored strategies or tools for assessing progress toward them appears to be a potential area for growth, both in the K-12 program and for adult learning. The Inuit Program Specialist for the Newfoundland and Labrador English School District, expressed a desire for closer collaboration between those working on K-12 programming and those working on community-based programming: "Shouldn't we [school board's Inuttitut curriculum center, Nunatsiavut Government, and Torngâsok Cultural Centre] be on the same page and doing the same thing for the public, plus they should be helping us. . . they are helping us, but they should be. . . in our schools more? I don't know how to say it. There should be more communication, more collaboration, more. . ." [quoted in Moore and Tulloch (2020, p. 21)].

CONCLUSION

The curriculum evaluation and the proficiency assessments were two parts of an integrated study aimed at evaluating what is working and what is needed in Nunatsiavut's K-12 Inuttitut curriculum. The K-12 curriculum evaluation was grounded in the understanding that Nunatsiavut children are learning Inuttitut as a second language, that the Nunatsiavut Government and communities are committed to revitalizing Inuttitut, that the school has a role to play in language revitalization, and the perception that language learning and revitalization was not happening as quickly or efficiently as those funding, teaching, or learning in the program would have hoped.

Our analysis of proficiency assessments, curriculum materials, interviews and community forums confirmed gaps in and between the intended learning outcomes, and materials and strategies to achieve these, and the observed outcomes, and methods being used to assess these. Greater community engagement in setting learning goals, and practicing and assessing Inuttitut proficiency is aspired to as an anchor and support to Inuttitut learning.

School boards, schools, and teachers, have a vital role to play in the revitalization of Indigenous languages, but they cannot do it alone. As Jana Hacharek, an Inuit scholar and teacher in Alaska wrote, "the process of passing the language on needs to be a community-wide effort, not something that is left up to the schools" (Hacharek, 2003, p. 8). A community-wide effort includes reaching out to Elders and speakers, and mobilizing the "middle generation"—those who may not have had the opportunity to learn the language, or who may have lost it—to participate in creating a new community of speakers.

Programming to support teaching and learning Indigenous languages in schools and in communities has been in place since the 1970s for many Indigenous languages. However, the development of measurable targets for the Indigenous language learning, and even more so of appropriate methods and tools to assess what learning is taking place, is relatively new, and less well established. By default, some K-12 Indigenous language programs, such as Nunatsiavut's, are following what teachers, curriculum developers, and administrators know from English and French language arts, without specifically creating Indigenous languages programs that are anchored in the needs and desires of the community.

Effective assessment must measure the intended learning goals. Although not yet articulated in the K-12 Inuttitut curriculum, leaders and those involved in Nunatsiavut's K-12 Inuttitut language program say they want its goal to be creating speakers—people who can and do use the language in the community. To this end, assessment strategies that include that real-life functions of the language, including outside of school, are appropriate. Some teachers are already doing so intuitively, and opportunities to share their practices, and develop new ones in dialog with other Indigenous language teachers, would be welcomed. Well trained and supported teachers, clear, measurable learning objectives, effective activities for reaching these objectives, and appropriate tools for measuring progress are all part of developing an effective K-12 Inuttitut curriculum that will be part of Nunatsiavut's goal of revitalizing their Inuttitut language.

DATA AVAILABILITY STATEMENT

The data analyzed in this study is subject to the following licenses/restrictions: Data referenced in this article is owned by the Nunatsiavut Government. Participants were assured anonymity and confidentiality. Requests to access these datasets should be directed to SM, Sylvia.moore@mun.ca.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Memorial University Ethics Committee, Newfoundland and Labrador English School District Research Review Committee and Nunatsiavut Government Research Advisory Committee. Written informed consent to participate in this study was provided by the participants, and in the case of minors, by the participants' legal guardian/next of kin. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work, and approved it for publication.

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Cultural Validity as Foundational to Assessment Development: An Indigenous Example

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The state of Hawai'i has a linguistically and culturally diverse population that recognizes Hawaiian and English as official languages. Working with the community, the state established the Hawaiian Language Immersion Program, Ka Papahana Kaiapuni Hawai'i (Kaiapuni), to support and promote the study of Hawaiian language, culture, and history. Kaiapuni students are historically marginalized test-takers and had been assessed using instruments that were culturally and linguistically insensitive, contained construct irrelevant variance, or had inadequate psychometric properties (U. S. Department of Education, 2006; Kaawaloa, 2014). In response, the Hawai'i State Department of Education and the University of Hawai'i developed the Kaiapuni Assessment of Educational Outcomes (KĀ'EO), which engages Kaiapuni students in technically rigorous, Native language assessments. This article details the theoretical framework of the KĀ'EO program, which includes traditional validity studies to build content and construct validity that support the assessment's use for accountability. However, the KĀ'EO team recognized that additional evidence was needed because the KĀ'EO theory of action is grounded in principles of community use of assessment scores to advance cultural and language revitalization. The article provides an example of one of the validity studies that the team conducted to build evidence in support of cultural and content validity.

Keywords: assessment, indigenous, cultural validity, community, psychometrics, theory of action, cognitive interview, native language revitalization

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LANGUAGE REVITALIZATION AND ASSESSMENT

To ensure that students can access the material in a test to demonstrate their knowledge, test developers must consider the most salient characteristics of the student population. However, this can be a concern when testing diverse populations because assessment practices and priorities derive from the culture in which they are developed and are based on cultural and contextual assumptions (Solano-Flores et al., 2002; Solano-Flores, 2006; Nelson-Barber and Trumbull, 2007; Trumbull and Nelson-Barber, 2019). Assessment also necessitates academic knowledge of the written or spoken language (Solano-Flores, 2012). As Trumbull and Nelson-Barber (2019) state, "Nowhere is the disconnection between Native ways of knowing and Western ways of teaching more evident than in the arena of student assessment, most egregiously in the realm of large-scale tests" (p. 2). These implications must be acknowledged when developing a test to ensure valid measurement of the construct. If language and culture are not considered, a test could ultimately measure other domains, resulting in a biased assessment (Keegan et al., 2013). Therefore, test developers should consider

Brayboy's (2005) notion that, because racism and colonization are endemic to a society and therefore often invisible, these issues of cultural validity must be intentionally and systematically addressed within the test development process. This work helps ensure an equitable assessment guided by Cronbach's (1989) assertion: "Tests that impinge on the rights and life chances of individuals are inherently disputable" (p. 6).

In this article, we outline the theoretical framework that cultural validity should be the foundation for building validity evidence of an assessment program. Then, we provide an overview of the Kaiapuni Assessment of Educational Outcomes (KĀʻEO) program to contextualize the importance of including cultural validity evidence in an assessment program. Thus, in making our argument, we situate the idea of cultural validity within the community and discuss how community involvement in the KĀʻEO program is an integral part of building assessments for Hawaiian Language Immersion Program, or Kaiapuni, schools. We discuss how the community has been involved at critical junctures in the development of the assessment, including the formation of a theory of action. Finally, we provide an example of a cognitive interview study to illustrate how KĀʻEO developers use cultural validity in test development.

OVERVIEW OF THE KAIAPUNI ASSESSMENT OF EDUCATIONAL OUTCOMES PROGRAM

The state of Hawaiʻi has a linguistically and culturally diverse population. This diversity is highlighted in the state constitution, which names Hawaiian and English as official languages and ensures traditional and customary rights of Native Hawaiians (art. XV, § 4).[1] Established through years of struggle and activism by the Hawaiian community, these rights include the ability to use the Hawaiian language in home, school, and business settings (Haw. Const. art. X, § 4[2]; Lucas, 2000; Walk, 2007). Working with parents and Hawaiian leaders, the state established Ka Papahana Kaiapuni Hawaiʻi (Kaiapuni) program to support and promote the study of Hawaiian language, culture, and history. The Kaiapuni program currently consists of 25 public schools across five islands, with approximately 3,200 students enrolled (Warner, 1999; Wilson and Kamanā, 2001; Kawaiaea et al., 2007).

Because Kaiapuni schools are part of the state education system, they must comply with student testing requirements under the Every Student Succeeds Act (ESSA), which mandates annual testing. Kaiapuni schools face a unique challenge in administering statewide summative assessments because academic content is taught in Hawaiian. In the past, the Hawaiʻi State Department of Education (HIDOE) implemented two assessments for Kaiapuni students: a translation of the Hawaiʻi State Assessment (HSA) and the Hawaiian Aligned Portfolio Assessment (HAPA). However, there were concerns with both.

The first assessment, the translation of the HSA from English to Hawaiian, lacked community credibility due to cultural and linguistic issues. For example, the underlying assumption in administering the HSA was that the translated versions of the summative assessments provided Hawaiian-language speakers with the opportunity to demonstrate their knowledge of the construct being measured (e.g., science) without changing the meaning of the construct. Thus, the translated versions were assumed to function like any other accommodation by leveling the playing field and improving score comparability between groups of students. However, the score comparability between the English and Hawaiian versions of the test was not necessarily well founded. Feedback from stakeholders and the state Technical Advisory Committee suggested that translated forms might not measure the same construct and might unduly disadvantage the students they are supposed to help (Kaawaloa, 2014; Englert et al., 2015).

The second assessment, the HAPA, provided a linguistically and culturally appropriate measure because it was developed in Hawaiian and specifically for Kaiapuni students. Although the HAPA was a positive shift to a more inclusive assessment that appropriately assessed students in their language of instruction (Abedi et al., 2004; Kieffer et al., 2009), technical quality issues hindered the use of the assessment for federal accountability (Kaawaloa, 2014; U.S. Department of Education, 2006). Subsequently, HIDOE returned to a Hawaiian translation of the English-language state assessment, much like the previous version of the HSA, which suffered translation issues and lacked community buy-in.

Because neither the translated HSA nor the HAPA provided an acceptable measure for use in accountability or for cultural appropriateness, the Kaiapuni community advocated for a fair and equitable assessment. In 2014, HIDOE contracted with the University of Hawaiʻi to develop the KĀʻEO. As a result, Kaiapuni students in grades 3–8 now engage in culturally appropriate Native language assessments in Hawaiian language arts, math, and science that are of sufficient technical quality to meet ESSA requirements (University of Hawaiʻi, 2020).

The KĀʻEO program is uniquely grounded in the language, culture, and worldview of the Kaiapuni community. The Foundational and Administrative Framework for Kaiapuni Education specifies the central role that assessment plays in the Kaiapuni schools: "It guides and binds us to our goals and values. It drives our curriculum and defines our teaching practices" (Ke Keʻena Kaiapuni, Office of Hawaiian Education, 2015, p. 27). These factors play intricate and integral roles in the assessment process, thus necessitating a broader approach to the examination of validity. Because assessment practices and priorities are based on cultural and contextual assumptions, all aspects of test development reflect an underlying consideration of the learner, the learning process and context, and the content being measured (Keegan et al., 2013). These considerations place the onus on test developers to account for culture and language because they have a direct impact on the construct on which a test is based and which it will measure. Thus, KĀʻEO development

[1]Haw Const. art. X, § 4.

[2]Haw Const, Haw Const. art. XV, § 4.

included widespread participation of the Hawaiian community in advisory groups, in writing and reviewing test items and student learning objectives, and in scoring the assessment.

CULTURE AND LANGUAGE IN ASSESSMENT VALIDITY

Good assessment practices dictate an explicit consideration of culture. Assessments often reflect the values, beliefs, and priorities of the dominant culture (Padilla and Borsato, 2008), which can create potential bias for underrepresented students. According to Klenowski (2009), learning and knowing are grounded in a sociocultural perspective because "differences in what is viewed as valued knowledge and the way individuals connect with previous generations and draw on cultural legacies (are) often mediated by the cultural tools that they inherit" (p. 90). This pluralistic perspective allows for improved relevancy of the assessment material as well as student access to and engagement with the material.

Culture and language need to be understood and examined on an ongoing basis and in multiple ways throughout the assessment development and administration process (He and van de Vijver, 2012). For example, Padilla and Borsato (2008) have recommended that community members be involved in assessment development and that test developers build their knowledge of customs and communication styles. Research has supported the adoption of a "pluralist" approach to item writing whereby test developers explicitly create items for a cultural group to ensure greater sensitivity (Keegan et al., 2013). In doing so, test developers can build assessments that strive to reduce bias through increased sensitivity, knowledge, and understanding.

Furthermore, test developers need to build comprehensive validity arguments that reflect their priorities for using data (Kane, 2012; 2006). Although culture has been considered in assessment literature (American Educational Research Association, American Psychological Association National Council on Measurement in Education, 2014), it has often been viewed as a threat to validity rather than an intrinsic consideration as an aspect of validity (Solano-Flores, 2011). Yet, as Kirkhart (2016) has argued, validity is culturally situated and should be central to any validity study to ensure sensitive and accurate measurement. If test developers fail to think broadly about validity and the degree to which an assessment embodies cultural priorities, their actions can result in the marginalization of some participants.

Thus, a validity argument that considers culture and language should be centered on two priorities. The first is ensuring the results of a Native language instrument can be used to draw similar conclusions to those from comparable English-language state assessments. In other words, the assessment must meet the technical requirements for accountability specified in U.S. Department of Education (2018) peer review. This necessitates that the assessment use many of the same validity methods used in assessment programs such as the Smarter Balanced Assessment Consortium (2010, 2020). Many of the KĀʻEO validity studies were conducted to ensure rigorous methods were applied in a similar manner as in the Smarter Balanced Assessment Consortium (2020). The KĀʻEO technical manuals provide additional information on the range of validity and reliability studies supporting the program, including content, construct, and cognitive evidence (University of Hawaiʻi, 2020).

At the same time, an assessment that accounts for culture and language needs to exceed basic ideas of validity, which leads to the second and more crucial priority. To truly account for language and culture, the assessment results must be sensitive and responsive to the needs of a diverse community (Trumbull and Nelson-Barber, 2019). Cultural validity processes should be integrated into the traditional validity methodology and considered in the interpretation of those results. Cultural validity reinforces the need to follow traditional psychometric methods but also pushes the development and analysis to look beyond the familiar.

To the degree possible, test developers who consider culture and language should look to researchers who are also walking this path (Kaomea, 2003; Lawrence-Lightfoot, 2005). Those researchers articulate the challenge of looking beyond the familiar in how data are examined and interpreted in order to find more complex and nuanced narratives. By using "defamiliarizing tools, anti-oppressive researchers working in historically marginalized communities can begin to ask very different kinds of questions that will enable us to excavate layers of silences and erasures and peel back familiar hegemonic maskings" (Kaomea, 2003, p. 24). This orientation provides test developers with insight into a community's priorities for an assessment while developing a theory of action, interpreting students' responses during cognitive interviews, and even interpreting and reporting statistical data. This article represents an invitation for others to join in unpacking the complex narrative of inclusion and equity.

Cultural validity, as the foundation of an appropriate assessment for Native students, builds on broader theories such as critical race theory (Ladson-Billings and Tate, 1995), TribalCrit (Brayboy, 2005), culturally sustaining/revitalizing pedagogy (Ladson-Billings, 2014; McCarty and Lee, 2014), culturally responsive schooling (Castagno and Brayboy, 2008), and culturally relevant education (Aronson and Laughter, 2016), to name a few. Whereas these broader theories agree on the basic premise that racism and colonization are an inherent feature of our society and schooling and are "pedagogies of opposition committed to collective empowerment and social justice" (Aronson and Laughter, 2016, p. 164), cultural validity provides a particularly useful lens to examine how these theories can serve as critical underpinnings in a discussion of Native language assessments. Discussing culturally responsive schooling, Castagno and Brayboy (2008) describe the justified reservations of Native communities about an increased focus on standardized testing. But what if an assessment exhibits the "deep understanding of sovereignty and self-determination" that Castagno and Brayboy (2008, p. 969) advocate for, particularly as a part of a community's effort to revitalize their Native language?

As Hermes et al. (2012) argue, the loss of Native languages has deep impacts on communities. Culturally responsive, sustaining, or revitalizing practice cannot be simply an add-on to address a failure of the American education system (Castagno and Brayboy, 2008; McCarty and Lee, 2014). Rather, we need approaches that "deepen insights for understanding how functioning in multiple discourses translates into strategies for language revitalization while also illuminating the role of Indigenous knowledge systems in learning" (Hermes et al., 2012, p. 382). Furthermore, Aronson and Laughter (2016) argue that if culturally relevant education is to have broad social justice impacts, educators need to "creatively play by the rules" while also fighting for change and educational sovereignty (p. 199). This is nothing new for Native educators, particularly those who use the culturally sustaining or revitalizing pedagogies that McCarty and Lee (2014) advocate for. Navigating between policies that prioritize monolingual and monocultural standards, while privileging the language, culture, and identity of Native students, is a balancing act and an everyday occurrence for educators of Native students.

This balancing act and the need for culturally sustaining pedagogy has been articulated by Native Hawaiian scholars as well (Benham and Heck, 1998; Warner, 1999, Wilson and Kamanā, 2001; Kawaiaea et al., 2007). For decades, schooling for Hawaiian students has served what Benham (2004) describes as "contested terrain" and represented a struggle over "content, values, instructional strategies, measures of accountability, and so on" (p. 36). In recognizing these systemic inequities, the Hawaiian community has been self-determining in creating culturally responsive schools, developing teacher education programs grounded in Hawaiian culture and language, and centering Hawaiian culture and language-based pedagogy (Kaomea, 2009). Utilizing this kind of self-determining approach has been the cornerstone of Hawaiian language revitalization and the development of Hawaiian immersion schools with notable success (Wilson and Kamanā, 2006). Furthermore, in alignment with notions of culturally sustaining pedagogy and cultural validity, Goodyear-Kaʻōpua (2013) has argued that as we navigate through a mainstream educational system that continues its history of inequality, we must take an approach grounded in survivance (Kūkea Shultz, 2014; Vizenor, 1999) and what she terms sovereign pedagogies because "education that celebrates Indigenous cultures without challenging dominant political and economic relations will not create futures in which the conditions of dispossession are alleviated" (Goodyear-Kaʻōpua, 2013, p. 6). Like bricoleurs (Kaomea, 2003; Berry, 2006), we must be savvy in our efforts to leverage ideals like culturally sustaining pedagogy and sovereign pedagogies in the development of assessments for marginalized communities. Cultural validity, as it relates to assessment development, is one way to do just that.

We propose that cultural validity is not a distinct type of validity; rather, it underpins the entire concept of validity. Thus, each time a validity study is developed as a part of the KĀʻEO program, the ways in which language and culture form a part of the validity argument are considered. Each validity study advances the thinking around the complexities involved in cultural validity, which are informed by worldview, learning styles, and community (Solano-Flores and Nelson-Barber, 2001). As Solano-Flores and Nelson-Barber (2001) have suggested, "Ideally, if cultural validity issues were addressed properly at the inception of an assessment . . . there would be no cultural bias and providing accommodations for cultural minorities would not be necessary" (p. 557). True cultural validity goes beyond fairness and equity to consider culture and language through the purposeful involvement of the community. This process ensures transparency, buy-in, and ownership by the community, and it promotes a level of validity that cannot be achieved through traditional methods (Trumbull and Nelson-Barber, 2019).

When cultural validity is viewed as a critical component for all validity studies in a program, those studies become more actionable and focused. In the KĀʻEO validity studies, specific discussions about language and culture are embedded in the process and always include as many educators and community members as possible, with representation from all communities in the study context. As Nelson-Barber and Trumbull (2007) advocate, "Until assessment practices with Native students can be flexible enough to take into account the contexts of such students' lives, they will not meet a standard of cultural validity" (p. 141). Across all KĀʻEO project tasks and validity studies, there is an intentional focus on integrating considerations of Native Hawaiian aspirations, wisdom, language, and worldview. Evidence is collected throughout the development, refinement, and analyses of the test cycle. The KĀʻEO developers built a foundation for the validity framework, using a theory of action that places Hawaiian culture at the center of the program. The theory of action provides a crucial foundation for all of the validity studies.

CULTURAL VALIDITY IN ACTION

In its broadest use, a theory of action provides a framework for evaluating the impacts of an initiative or program (Bennett, 2010; Lane, 2014). In the context of educational testing, a theory of action can be used to frame a validity argument (Kane, 2006) or, more simply, to evaluate whether the intended effects and benefits of an assessment have been achieved (Bennett, 2010). However, the development of theories of action in many assessment programs is built on a monolingual, English-based construct (Lane, 2014). Bennett et al. (2011) provided an interpretation and graphic representation of the theories of action of English summative assessments and found little to no focus was placed on students' language and culture (beyond their achievement levels) and community. Validating an alternative approach, Haertel (2018) challenges evaluation specialists and researchers to "examine the ways testing practices have sometimes functioned to justify or support systemic social inequality" while also employing new and unfamiliar research methods and tools and collaborating with others outside of the field (p. 212).

The development of the KĀʻEO theory of action aligns with Haertel (2018) as well as the tenets of culturally responsive schooling espoused by Castagno and Brayboy (2008). The theory of action is grounded in community involvement and places student outcomes at the center of the work as well as

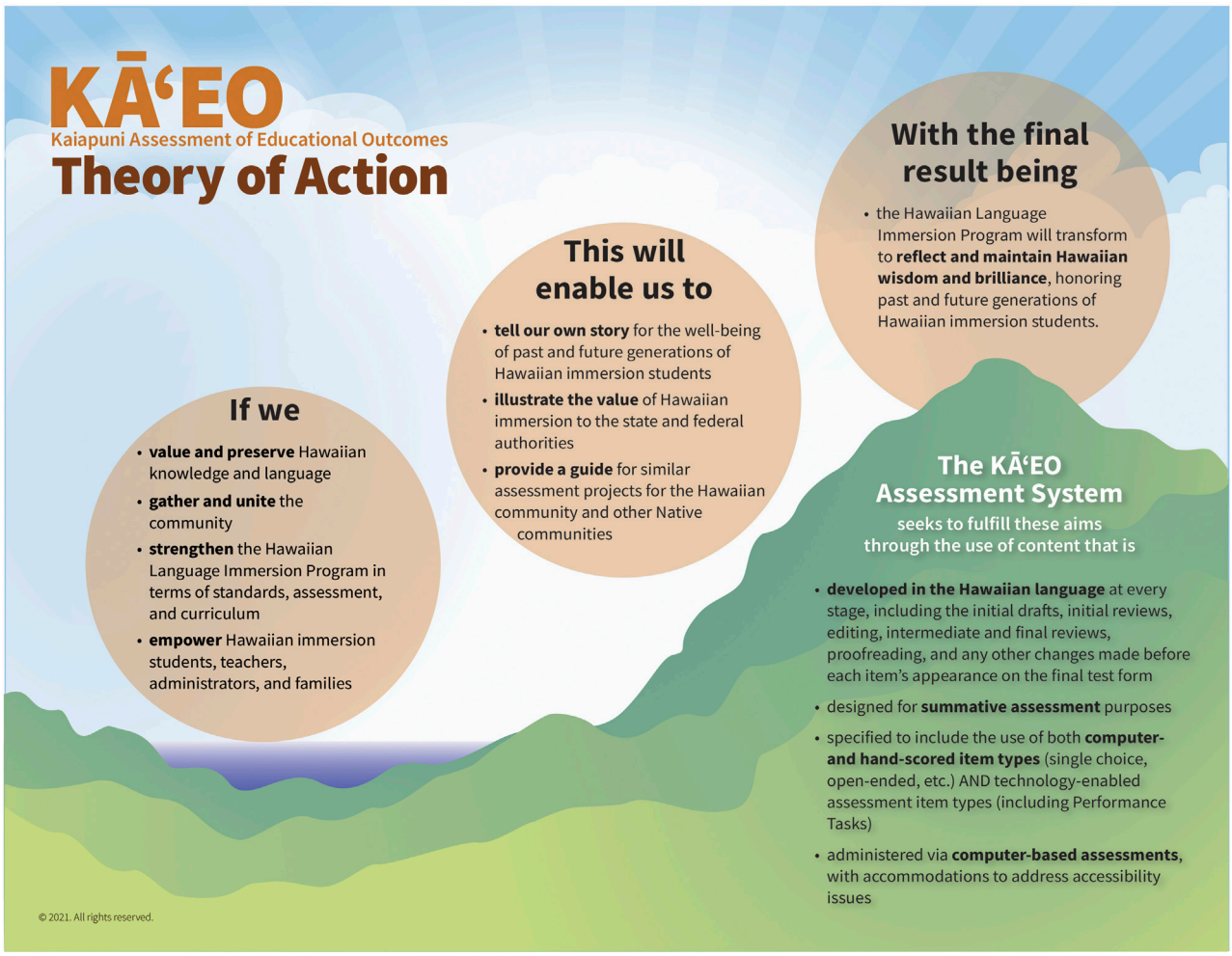

FIGURE 1 | KĀʻEO theory of action.

systems of Native epistemologies and interests (Paris and Alim, 2014). The development of the KĀʻEO theory of action focused on two important priorities: engaging with the stakeholders of the community and privileging Hawaiian knowledge, language, and culture throughout the development process. These two priorities helped to ensure that the community's aspirations for their children were respected. The KĀʻEO theory of action is one example of how the test developers and community stakeholders successfully balanced the tension between maintaining the technical requirements of a state assessment and serving the needs of the community as defined by the community (McCarty and Lee, 2014; Patton, 2011; **Figure 1**).

The KĀʻEO theory of action informed the validity work by highlighting several key considerations in terms of building validity evidence. First, the KĀʻEO program was integral to the preservation and revitalization of the Hawaiian language, and the assessment results would strengthen the Kaiapuni schools by providing key data to teachers, parents, and students. This could be done only by ensuring the assessment accurately measured key linguistic and cognitive attributes. Second, engaging the community throughout the assessment process in different ways would ensure a unified vision for the assessment and the data use. Validity studies were intentionally structured with the goal of building the credibility and value of the assessment. The cognitive interviews described below are an example of carefully building evidence to ensure the assessment reinforces key linguistic and cognitive attributes.

A VALIDITY STUDY IN SUPPORT OF CULTURAL VALIDITY

A key to the KĀʻEO validity argument was understanding the specific linguistic and cognitive processes of the Kaiapuni program's bilingual students. An example of the program's validity studies, cognitive interviews seek to understand the cognitive and linguistic underpinnings of the assessment. Cognitive interviews should be a foremost concern in test development to ensure that students are interpreting the items as intended (Solano-Flores and Trumbull, 2003; Trumbull and

Nelson-Barber, 2019). Research has shown that emerging bilinguals possess "cognitive and linguistic practices that differ from monolinguals" (Menken et al., 2014, p. 602). These practices should be examined and evaluated independently to best understand their unique characteristics (Menken et al., 2014; Mislevy and Durán, 2014).

When developing validity evidence for tests such as the KĀʻEO, there needs to be deep consideration of the complexity of linguistic, academic content, and contextual factors. Because the Hawaiian language is being revitalized (Warner, 1999; Wilson and Kamanā, 2019), students often possess different skills and abilities in grammar, text familiarity, and sociolinguistic knowledge (Weir, 2005). This is often driven by a student's home language, which is sometimes Hawaiian but most often English. Because the KĀʻEO is a new testing program for the Hawaiian language, there is an imperative to understand how students are making sense of items given their range of linguistic and academic abilities.

Cognitive Interviews

The central issue in assessment is accurately measuring students on the key domain or construct. To this end, test developers have implemented various methods to ensure that assessments allow students to demonstrate their knowledge in appropriate ways. One method of understanding students' access to items is cognitive interviews (Zucker et al., 2004; Rabinowitz, 2008; Almond et al., 2009). This method uses structured interviews to ask students to discuss their mental processes and interpretations as they work through an item. This method can provide test developers with a greater understanding of how students are interpreting the item and how it corresponds to the intended construct. Cognitive interviews can specifically help identify confusing instructions, items that are unclear, and item choices (i.e., distractors) that are poorly worded. While cognitive testing can be resource intensive in terms of developing and administering protocols and coding the qualitative results, it is critical for test developers to use other methods (e.g., reliability analyses) in conjunction with cognitive interviews to build a complete picture of score reliability and validity. Cognitive interviews were particularly critical for the KĀʻEO to build a validity argument that supported cultural validity.

Methods

Purpose. In considering the cognitive interviews, the KĀʻEO team looked to the theory of action to guide the study. It was critical not only to understand how students interacted with the test but also to build validity evidence in support of linguistic and cognitive processes. By speaking directly with students, the KĀʻEO team could gain deeper insights into the students' linguistic processing and into interactions between their language proficiency and their access to the content of the assessment items. In addition, the team could better understand any bias in the items as well as the clarity of the items, which provided assurance that the items maintained an integrity to the Hawaiian language and cultural knowledge.

During a thorough item review, conducted after the analysis of items on the 2019 assessments, issues related to reliability emerged. First, despite efforts to improve the reliability data of all the assessments, the grade 7 math assessment continued to have lower levels of reliability. Second, the analyses revealed the low reliability of particular items for students in the IEP/504 subgroup. In addition, language proficiency issues were a recurring theme, and the KĀʻEO team decided to explore those issues in the cognitive interviews. Kaiapuni students often have a range of exposure to and education in the Hawaiian language, and their varied degrees of fluency may affect their access to the assessment items (Ke Keʻena Kaiapuni, Office of Hawaiian Education, 2015). Finally, each Kaiapuni school might present academic content using different terminology, grammar, or structure. These differences needed to be evaluated to ensure that each student could access the material on the assessment.

Participants. To get a representative sample of students from across different islands and schools, the KĀʻEO team invited 11 schools on five islands across Hawaiʻi to have their students participate in the cognitive interviews. Potential participants were grade 8 students from Kaiapuni schools, who were administered the grade 7 KĀʻEO math assessment in 2019. From the 11 schools invited to participate, 19 students were interviewed at four schools on three islands. Seven of these students had an IEP/504 plan, and 12 did not. The KĀʻEO team asked classroom teachers to select students who were at or above proficiency based on their observations in the classroom and who were in the IEP/504 subgroup. The KĀʻEO team worked closely with HIDOE on a data sharing agreement that would protect student anonymity and data. HIDOE also initiated all communications with school administration. In addition, clear communication with parents and students was critical to provide an understanding of the process as well as to allow them to ask questions or opt out of the interviews.

Interview and Analysis Protocol. Cognitive interviews use a one-on-one questioning approach whereby an interviewer (e.g., researcher) sits with a student and asks specific questions about how they solved the assessment items. There are two main methods for conducting cognitive interviews: concurrent and retrospective (Zucker et al., 2004). The concurrent method involves collecting data from students as they work through an item, whereas the retrospective method involves asking questions immediately after students work through an item. Both methods provide useful information, but the KĀʻEO team used the retrospective method for these cognitive interviews because that method is less likely to interfere with a student's performance (Zucker et al., 2004).

The KĀʻEO team selected a set of three questions from the grade 7 math subject area to be presented to the grade 8 participants. Using these items and the operational test software, the team produced a testlet that replicated the appearance of the operational form. In addition, interviewers used digital booklets that included each reading passage, item, and associated distractors. The booklets also included interview scripts and prompts as well as places to type in all necessary documentation to ensure consistent information was collected for

each item. All of these documents were created in Hawaiian to align with the language of instruction and the assessment.

Each cognitive interview was conducted in Hawaiian by a team consisting of an interviewer and a note-taker. Both team members were fluent in Hawaiian and thoroughly trained on the protocols and scripts so that they would not influence the students' responses. The following list represents an interpretation of the general questions asked during the interview, although it may not reflect follow-up questions related to specific questions or issues:

- Can you explain how you found the answer? What was the first thing you did?
- Did you find this question easy, medium or difficult? Was the language of the question clear?
- Do you remember learning this content?
- Did you come across any vocabulary words that you did not understand? What did you do when that happened? Is there another word that you would use to describe this concept?

The interviewer worked one-on-one with students to ensure they were comfortable with and understood the process. The interviewer read the scripts and prompts and guided the timing of the interview. In addition, the interviewer was instructed to pause (e.g., 10 s) between a student's responses to allow the student to give complete answers. The note-taker documented the process and recorded notes. Each session lasted no more than 40 min, which ensured students were engaged in the interview process and did not become tired or frustrated.

After conducting each cognitive interview at the separate school sites, interviewers and note-takers met to debrief. This session was held immediately after the cognitive interviews in order to document initial impressions of how the students responded to the questions as well as improve the process for following interviews. After all cognitive interviews were completed, the notes from debriefings and the notes taken during the interviews in the digital booklets were collated and organized by question to make the analysis more seamless. The KĀʻEO team, who has knowledge and expertize of the items, Hawaiian language proficiency, and content knowledge, conducted a final analysis of the notes. During this analysis, the team identified salient themes and organized the initial analysis into two categories: 1) a summary of students' thoughts, opinions, and actions toward each question; and 2) a recommendation for future actions regarding each question.

An example of this process was in the questioning and analysis of student feedback to a grade 7 math question aligned to a grade 7 statistics and probability standard. The question itself had content-specific vocabulary in Hawaiian related to probability, random samples, and so forth, which can be challenging for emerging bilinguals or students with limited language proficiency skills. Students who were considered at or above proficiency as well as students with IEP/504 plans were interviewed about this question, and the results were similar. All students thought that the question was relatively easy and that, overall, the language was clear. One student suggested that some kind of graphic or visual representation might help in understanding the question. The most interesting finding related to this question, however, was that students overwhelmingly did not understand the term "random sample," which was a central part of the question. This one term, when in Hawaiian, ended up being the part of the question that hindered students the most and prevented some of them from selecting the correct answer. These results were illuminating and led to recommendations for concrete actions specific to this question and other questions with challenging, content-specific vocabulary to maximize student access to question content. The next section includes a more in-depth discussion related to vocabulary, content, and language proficiency, but it is clear that the KĀʻEO team has merely scratched the surface in terms of the potential of cognitive interview analysis and its impact on the assessment development.

Findings

After completing the analysis of each individual question as summarized above, the KĀ'EO team analyzed the results for broad themes that could inform future item and test development as well as professional development activities initiated by HIDOE.

Vocabulary and Content. As in years past, knowledge of content-specific vocabulary appeared to be a factor in how students understood and explained questions. This issue was apparent in most cognitive interviews but seemed to be more prominent in the higher grades, particularly regarding content-specific vocabulary in math items. As the content becomes more complex, so too does the Hawaiian language vocabulary associated with it. In addition, teaching math content in Hawaiian is not easy because it requires a high level of language proficiency and mastery of content-specific knowledge in two languages. If teaching this higher level of language is difficult, then learning it is just as difficult. Thus, the issue of content-specific vocabulary was evident in the cognitive interviews with the students. In addition, 2019 was the first year for students to be administered an operational test in Hawaiian, which may have affected the content taught during the year as well as students' familiarity with the Hawaiian vocabulary and content aligned with a Hawaiian worldview.

Acting on this finding, the KĀʻEO team continued to focus on the content-specific vocabulary to ensure that the Kaiapuni schools can properly prepare students for the words used on the assessment. The team also made recommendations to HIDOE and its Office of Hawaiian Education about providing Hawaiian language professional development in schools to strengthen curriculum and instruction and make resources in the math content area available to teachers. In addition, because students and teachers are expected to become more familiar with the content-specific vocabulary and Kaiapuni student learning outcomes in future KĀʻEO administrations, this should become a less central issue in future years.

Language Proficiency. Another salient theme that emerged from the analysis of the cognitive interview data was the impact of students' language proficiency on their performance on the KĀʻEO. Although evidence of this impact had surfaced in previous cognitive interviews, it was clearly seen in the 2019 interviews with the grade 8 students.

As mentioned previously, in selecting participants for the cognitive interviews, the KĀ'EO team asked schools to select a group of students who had high proficiency in the Hawaiian language. During each interview, the interviewer and note-taker informally evaluated a student's language proficiency based on the conversation as well as whether the student reported that they consistently spoke Hawaiian at home with another family member. Although interviewers were not able to pinpoint an exact proficiency level for each student, they were able to gain a general sense of a student's language proficiency from their conversation.

Overwhelmingly, students who had higher proficiency in Hawaiian could not only better understand and correctly answer questions but also better articulate their reasoning behind their answers. Although this finding does not point to a direct correlation between language proficiency and performance on KĀ'EO, it is the first step in examining how language proficiency affects a student's performance.

In addition, a student's ability to clearly articulate their reasoning is a highly valued skill in all three content areas of the KĀ'EO. In extended response questions for Hawaiian language arts, for example, students need to make inferences about a text they read and thoroughly explain how those inferences are evident in the text. In extended response questions for science, students need to describe how natural phenomena are connected and what their impacts are. Finally, for math, many questions are aligned with Claim 3: Communicate Reasoning of the Smarter Balanced Assessment Consortium (2020): "Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others." In all of these cases, language proficiency in Hawaiian is vitally important to a student's ability to articulate an argument, evaluate an argument, tell a story, or explain their thinking. Not having high enough Hawaiian language proficiency can seriously inhibit a student's ability to show what they know.

What is clear from these findings is that language proficiency may affect more than just a student's right or wrong answers on the KĀ'EO. It may also point to item performance data, particularly for questions on the assessment that require students to explain or justify their answers. This finding may seem obvious, but less obvious is how the KĀ'EO team may go about addressing the impacts to item performance (Claim three questions in math, for example) and addressing the language proficiency issue on the assessment. As mentioned previously, Kaiapuni educators are "recalibrating" their instruction in the classroom because of the KĀ'EO, so the language proficiency issue is expected to become less pronounced and have less of an impact over time.

One addition to the research agenda of the KĀ'EO project is the collection of evidence for external validity. In the 2019 administration, the KĀ'EO team began surveying students about their language proficiency and using that survey data for both external validity and differential item functioning (DIF). DIF is a measure of bias that examines the degree to which individual assessment items have differential response patterns between demographic groups (e.g., boys vs. girls; Camilli and Shepard, 1994). The KĀ'EO team began an additional round of DIF analysis in 2019 to start to build an understanding of DIF as it relates to students' self-reported language proficiency skills. Even though this DIF analysis is in its early stages and no valid and reliable conclusions can be drawn yet, using the results of the analysis, along with the cognitive interview findings, has tremendous potential. The KĀ'EO team will report these findings to HIDOE so that professional development can be developed that not only addresses the need for more knowledge around the Kaiapuni student learning outcomes but also targets the Hawaiian language proficiency of students and teachers.

Summary

Even though cognitive interviews are a typical part of the assessment development process, the approach and findings for the KĀ'EO program are far from typical. Rooted in the KĀ'EO theory of action and the tenets of cultural validity, these cognitive interviews privileged Hawaiian language, culture, and worldview while gathering essential data to inform future item development. The diversity of this population of students, who are mostly emerging bilinguals with varying levels of language proficiency, dictates that attention be paid to language and culture in every study, survey, and analysis. This is because cultural validity is reflected in "the effectiveness with which . . . assessment addresses the sociocultural influences that shape student thinking and the ways in which students make sense of . . . items and respond to them" (Solano-Flores and Nelson-Barber, 2001, p. 555).

CONCLUSION AND IMPLICATIONS

> "*It is a blatant understatement to say that approaches to the assessment of Indigenous students in the United States have fallen far short of an ideal of culturally-responsive, culturally-valid practice (Trumbull and Nelson-Barber, 2019, p. 8).*

KĀ'EO developers continue to build an understanding of the importance of cultural validity. The efforts to improve assessment for the Kaiapuni schools is a journey toward improved relevancy and understanding. Cultural validity has provided a framework to ensure the KĀ'EO program provides opportunities for students to demonstrate their knowledge while also fulfilling a commitment to support the community on the path to language revitalization. The explicit acknowledgment of the centrality of Hawaiian language and culture emphasizes the importance of a close collaboration with the community to build an understanding of the KĀ'EO program and to ensure that this assessment does not fall short of what Kaiapuni students deserve.

Community involvement has been an essential aspect of the KĀ'EO development and a way to gather data to support the cultural validity of the assessment. The theory of action was developed with input from K–12 educators, higher education staff, and community members in the Hawaiian language. Cognitive interviews confirmed the integral role that language plays in every aspect of the assessment development process. Finally, the complexity of the population of Kaiapuni students,

who are mostly emerging bilinguals (Mislevy and Durán, 2014) and second language learners of Hawaiian with varying levels of proficiency, dictates that special attention be paid to cultural validity in every study conducted in relation to the KĀʻEO.

As the first Native language program of its kind, the KĀʻEO provides a unique opportunity to develop assessments that reflect the priorities and needs of the Hawaiian community. The test developers are ready and willing to engage in this significant work. Through the integration of psychometric theories of validity (e.g., construct and content validity) and cultural validity, the developers hope to continue to improve the KĀʻEO as it is aligned to and reflective of the Hawaiian worldview. This includes a responsibility to contribute not only to the field of assessment but also to the work of social justice as described by Castagno and Brayboy (2008): "As with the concepts of sovereignty and self-determination, racism, its manifestations, and its effects must be made a more explicit part of the discussion among scholars researching and writing about (culturally responsive schooling)" (pp. 950–951). It is in this spirit that the KĀʻEO contributes to the broader narrative in educational assessment and cultural validity and shows that a Native language assessment built with the community can have broad impacts.

DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because the State of Hawaiʻi, Department of Education has ownership of data and should be contacted for any data requests. Requests to access the datasets should be directed to https://www.hawaiipublicschools.org/VisionForSuccess/SchoolDataAndReports/HawaiiEdData/Pages/Data-Requests.aspx.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the State of Hawai'i, Department of Education. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

AUTHOR CONTRIBUTIONS

PK and KE have contributed to the development of the assessment system and validity framework. The data collection was designed, led, and summarized by PK. Additional data analysis was conducted by KE. All authors contributed to the article draft.

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REVIEW
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Finding Fitting Solutions to Assessment of Indigenous Young Children's Learning and Development: Do It in a Good Way

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Standardized, norm-referenced assessments of young children's learning and development pose a number of challenges when used with Indigenous children, beginning with the very notion of the construct "early childhood" that runs counter to some Indigenous ways of knowing and being. Indigenous community leaders and knowledge keepers reject the idea that all children should develop according to a homogenizing universal standard that is not grounded in specific culturally based goals and practices surrounding children's development and does not respect each child's unique character. Three key problems arise with creating appropriate assessment of Indigenous young children's learning and development: 1) assessment in early childhood programs is often done from the perspective of whether children are on track to be ready for school; 2) school systems, early childhood programs, and practitioners face a barrage of pressure to measure children's "progress" against universalist norms derived from Euro-Western ways of knowing and goals for children's development; and 3) knowledge of diverse Indigenous young children's varied lived experiences in today's urban and rural communities is extremely limited. This paper discusses these obstacles and draws from the author's many years of collaborating with Indigenous children, families, and communities to co-create culturally relevant assessment in a good way.

Keywords: assessment, ethical practice, cultural safety, decolonization, generative curriculum model, Aboriginal Children's Survey, school readiness, Ages and Stages Questionnaires

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INTRODUCTION

"We always hear that 'children are our future.' But they are also here now! We need to see children now, and get to know them as they are now, and not only think of them as people who have not yet fully arrived." A Cree knowledge keeper voiced this perspective in a meeting when I was a member of a mostly Indigenous technical advisory council for (Statistics Canada, 2006) Aboriginal Children's Survey. Many of the First Nations, Inuit, and Métis members of this council expressed concern, both about what they perceived as a lack of appreciation for the gifts young children bring with them into the world and about the inadequate response to the immediate unmet needs of many Indigenous young children. While the slogan "children are our future" may be intended to express hope for what the next generation of adults will be able to do for their communities, it also insinuates a neoliberal view of children as human capital. Investment in early childhood programs, assessment, and early childhood intervention is often rationalized as essential to ensure a supply of human resources to

meet future market demands while also growing the middle class because their consumer needs fuel our capitalist economy.

When I codirected an early childhood educator diploma program in partnership with ten culturally distinct groups of First Nations in Canada, we used a generative curriculum model in which local cultural knowledge keepers contributed half the curriculum of the 20 courses while university professors contributed the other half (Ball, 2003; Ball and Pence, 2006). Elders of the Meadow Lake Tribal Council began by questioning the very construct of early childhood, asking why non-Indigenous theories of development as well as training, education, and service programs divide childhood into segments: early childhood, middle childhood, adolescence. They perceived continuity across the years before adulthood and wondered what is gained and lost by fragmenting children's lives into a series of seemingly arbitrary periods, just as they argued against separating children by age in early childhood programs.

The way the lifespan is segmented according to age and expected roles is not innocuous—it gives rise to a prescribed set of expectations and responses based on children's ages, which are then inscribed in parent education, educator training, and ways that specialists make meaning of their observations during an assessment. For example, "young children" are expected to learn through play until they are six. "School-aged children" are required to learn through sitting for long periods following instructions and listening to others; they are no longer in "early childhood" and their behaviors should show they are "school ready." In North America, professional education for schoolteachers is completely different than professional education for early childhood educators. School teachers are expected to be able to teach any grade level from kindergarten to grade six (and to grade twelve in some provinces and territories), because children in those grades are "school aged." School teachers are also paid and valued significantly more than early childhood educators. There is a guaranteed publicly funded space in school for every school-aged child in North America, whereas spaces in early learning programs for "young children" are catch-as-catch-can. Young children are not yet valued as citizens of today; they are only citizens in waiting: waiting to be six, waiting to be the future.

Indigenous knowledge keepers often express concern about the apparent lack of valuing of childhood as a special, even sacred time of life that is "for itself," when children explore their connection to the world, including the spirit world (Ball, 2012). If educators focus on these first years of life as being mainly about getting ready for the next years of life, we miss the preciousness of each breathing moment. Indigenous colleagues insist that when children go to school, this should be a time to explore and develop one's gifts, not only a training ground for postsecondary education or employment. Indigenous scholar Cajete (2000, p. 183) explains: "There is a shared body of understanding among many Indigenous peoples that education is really about helping an individual find his or her face, which means finding out who you are, where you come from, and your unique character." What might shift if childhood were imagined as a time of being children and not only as a time of becoming adults?

In another First Nations partnership for community-based delivery of the early childhood diploma program, local community knowledge keepers asked why we have words for developmental lag or décalage to describe children as developing "on time" in some domains and being delayed, according to age norms, in other domains. They perceived a problem-generating insistence on sameness: that ideally, all children should develop evenly across all domains according to a homogenizing universal standard. They argued that we create worry for parents and undue fuss in public health, child protection services, or early childhood programs about children who show variation in developing competencies across domains. An Elder-in-residence at an urban Indigenous child care program on Vancouver Island put it this way: "If they're just a little behind with this or that skill, give them time. They'll catch up. Maybe their mind is busy thinking through something else they are experiencing." The Indigenous program staff agreed that, essentially, if a child is really behind in everything, then they need to do something more for that child. But too much surveillance and comparison with everyone else can create problems where there aren't any. As the Step By Step Child and Family Center (2015) of Kahnawake Mohawk Territory said: "The use of standardized assessments presents a number of unique challenges most especially to our belief and that of many Indigenous people that formal tests which carve children into developmental pieces or domains do not reflect our world view and are fundamentally not helpful" (p. 2). For me, these conversations stimulated my thinking about assessment as a form of colonial surveillance. It can reinscribe a dominant societal expectation that children will develop according to a script that is assumed to be universal, crushing sources of variation that may come from within a child or signify their enculturation with a particular language, cultural, family, and community ecosystem.

The problem-generating results of typical assessment with many Indigenous children are all too obvious. Large numbers of Indigenous children are diagnosed with various developmental delays and pathologies by the time they start school. Some assessment findings, such as the high prevalence of otitis media and resulting speech deficits in First Nations and Inuit children, are indicators of poverty, with its attendant crowded, poor-quality housing, indoor air pollution, low food security, and low access to quality health care. Yet assessment rarely identifies the primary problems as exogenous to the child or their caregivers. Assessment is focused on the child, and it is assumed that pathology exists within the child, not in federal government policies that fail to honor age-old agreements with First Nations or Inuit people, or in community leadership that privileges some families over others when distributing grants for home repairs. The child is seen as deficient and the primary caregivers are charged with the responsibility to access remedial services. Sometimes the real or perceived threat of the child being taken into government care is the punitive incentive for caregivers to comply with recommendations from assessments that use universalized developmental norms and see the individual child as the only relevant focus of assessment and target of remediation.

In many settings, educational psychologists and clinical ancillary service professionals such as speech-language pathologists visit Indigenous preschools, schools, or communities and diagnose many children as having special

needs. An aware professional knows that it could be years before services will actually be provided to any of those children. Community members often grieve this seemingly mindless, damaging, fly-by service. Clinical ancillary services for First Nations children living in land-based communities (on reserve) are not funded by the federal government. This often drives Indigenous parents to establish temporary residence off reserve to access services for their child. However, in urban settings, Indigenous and non-Indigenous children alike often languish for years on wait lists for remedial services for learning disabilities, speech-language therapy, and other supports. Funding gaps for assessment and services for children with special needs have been alleviated to some extent as a result of Jordan's Principle, which requires the federal government to cover costs of necessary health interventions and supports and determine provincial fiduciary responsibilities only after health care has been provided (Government of Canada, 2021). However, despite the central tenet of Jordan's Principle, federal and provincial bodies continue to engage in adversarial legal and policy techniques to delay its implementation (Johnson, 2015; Blackstock, 2016).

Many children have development delays or challenges that are due to the family's lack of resources or understanding of how to access programs that could support their parenting. This obstacle could potentially be alleviated by employing a navigator to advocate for children or their families and to help them access needed resources and services (Anderson and Larke, 2009). Some children lack certain kinds of stimulation or experiences that could be addressed by early childhood educators who live and work in the community. Further, when results of assessment are communicated to parents, community leaders, government agencies (and too often to local news media), the whole community may be left feeling shamed and worried for their children and second-guessing their parenting skills, with no resources or supports to provide anything different (Ball and Lemare, 2011). A guiding principle of culturally safe practice is to have a positive purpose and to make it matter (Ball and Beazley, 2017). Yet assessment is often done because it is mandated or seems, mindlessly, like a first step. The next steps that might result in a substantive, positive outcome that matters for the child are often not thought out, and if they were, a significant portion of the funds spent on assessment would be diverted to strengthening community-based capacity to improve the quality of life for Indigenous children in communities (Ball and Simpkins, 2004). With increased access to continuing professional education, early childhood educators could provide targeted stimulation, speech and language facilitation, and other development supports to all children in a community (Ball, 2009; Ball and Lewis, 2014).

I believe that we have a hard time arriving at new ways to think about assessment of Indigenous young children's learning and development for three reasons. First, assessment in early childhood programs is often done from the perspective of whether children are on track to be ready for school. Second, school systems, early childhood programs, and practitioners face a barrage of pressure, mostly from public bureaucratic drivers (though sometimes from parents) to measure children's "progress" against universalist norms. Additionally, assessment remains very much a Euro-Western technology embedded within a worldview that implicitly or explicitly assumes that "West is best." Most professional education programs have yet to decolonize and therefore typically transmit Euro-Western values, ways of knowing, goals for children's development, norms, technologies, and tools to generations of early childhood practitioners and clinical specialists. Third, we do not actually have much intimate knowledge or insight about diverse Indigenous young children's varied lived experiences in today's urban and rural communities. I address each of these obstacles below and then discuss lessons learned in my many years of research with Indigenous children, families, and communities to cocreate culturally relevant assessment in a good way.

ASSESSMENT IN SERVICE OF SCHOOL READINESS

Important gains have been made to increase access to early childhood care and development programs in the past two decades. However, despite rhetoric about play-based, responsive, child-centered approaches, the construct of school readiness has become all-consuming, including in assessment practices. Child-centered approaches seek to understand and respond to children's interests, needs, gifts, and diverse culturally based family goals for children's development. The school readiness construct may initially have been informed by studies about how parents and programs can promote self-regulation in the early years so that children are ready to focus their attention for extended periods, tolerate frustration when faced with increasingly complex tasks, and cooperate with others (Shanker and Hoffman, 2015). However, the construct has become distorted and has led to an imbalance whereby early childhood programs and assessments focus excessively on emerging academic skills (Ashton, 2014). Governments and public schools often invoke the readiness concept to drive the literacy and numeracy goals of primary schooling down into senior and junior kindergarten and on into preschools and into the minds of parents. Consequently, parents the world over are increasingly demanding early literacy and propelled numeracy training as the focal point of nursery and preschool programs (Mahmood, 2013). Export of North America's preoccupation with school readiness to the Global South can be seen as a continuation of Euro-Western colonialism and ethnocentrism. At the same time, the singular emphasis on getting children ready for school is a signifier of neoliberalism, expecting sameness for all six-year-olds as they enter standardized schooling, with tracked progress on work-readiness skills through frequent standardized testing.

UNIVERSALIST NORMS DO NOT MEET THE NEEDS OF INDIGENOUS CHILDREN

Standardized tools for monitoring development, screening for development risk, and assessing atypical development have been developed and normed on a general population of children. These tools do not account for contextual and cultural differences in children's experiences or the use of nonstandard varieties of English or French, as is common in Indigenous communities (Ball and Bernhardt, 2008). They are typically administered

by people the children are unfamiliar with and whose culturally based behaviors and variant of English or French may be unfamiliar to the child and vice versa. Many Indigenous organizations insist that available tools do not provide an authentic representation of what children know and can do and that there are strengths that derive from being raised in an Indigenous family that are not tapped by tools developed by non-Indigenous researchers and standardized with reference to non-Indigenous children's developmental trajectories.

The demand that early childhood educators, teachers, and allied professionals use standardized assessment tools is thus part of a neoliberal regime that aims to move all children forward in lock-step progression with universalized Euro-Western norms of development. Those whose developmental progression deviates or whose families disagree with the hegemonic education paradigm on offer become further marginalized. Young Indigenous children and their families and communities are poorly served by neoliberal education that values uniform progression towards outcomes valued by neoliberal elites that dominate decision making about public and private investment in education. Universalism is functionally indistinguishable from monoculturalism. Despite performative displays intended to convey an embrace of multiculturalism, early childhood education and public schooling increasingly ignore the many ways in which children vary and the sources of diversity that often reside in children's home cultures and daily experiences in their families and communities. A just future depends on this diversity. Combined with the continuous erosion of biodiversity, failing to protect human diversity in ways of knowing, doing, and being puts us in double peril.

KNOWLEDGE OF INDIGENOUS CHILDHOODS IS EXTREMELY LACKING

A barrier to relevant, authentic, and holistic assessment of Indigenous children is that those who are typically responsible for conducting assessments are trying to assess what they do not know: Indigenous childhood. While there are growing retrospective accounts of Indigenous childhoods in published autobiographies by Indigenous adults, times have changed in most Indigenous families and communities. There are few authentic, detailed accounts of childhood as it is experienced in today's altered environments, communities, media, preschools, and primary schools. Studies are needed that ask Indigenous children to describe their everyday lives, how they learn about the world immediately around and beyond them, what gives them joy, what they experience in formal learning environments such as nurseries, preschools, kindergartens, and primary schools, what they learned recently and how they learned it, and what gives them confidence in themselves as capable learners, knowers, and doers.

MAKING IT OUR OWN

An abiding wish of many Indigenous communities and organizations is to create even one, or a plethora, of assessment tools that are tailor made for Indigenous children, or specifically for First Nations, Inuit, and Métis children. Soon after I moved back to Canada in 1995 after nearly 20 years away, I got a call from a First Nations organization asking if I would assist in this endeavor (and even today, these calls keep coming). Around 1998, Health Canada and the Public Health Agency of Canada began to plan the first evaluation of Aboriginal Head Start, and discussions were convened to explore "Aboriginal-specific tools" for measuring Aboriginal children's social and cognitive development. Instead of creating new tools, early evaluations of Aboriginal Head Start used a collection of existing tools, including the Work Sampling System (Meisels et al., 2019), which generated copious qualitative data collected in various ways at different program sites, yielding an almost unwieldy volume of verbal data. There were many challenges with this foray into evaluating an Aboriginal-specific initiative in ways that adequately represented the community-specific, culturally diverse ways that the program was implemented across the country. No existing standardized tools or set of tools seemed to fit the widely varying program participants and circumstances.

Soon after the first evaluations of Aboriginal Head Start, Statistics Canada sought to conduct an inaugural national study of Aboriginal young children's living conditions, wellness, and development. They gathered a technical advisory group composed of mostly Indigenous leaders in the early childhood sector (I was honored to be included as a non-Indigenous ally). Statistics Canada asked the group to consider the plethora of standardized parent-report tools for surveying early childhood development. The group rejected all the standardized tools used in other national studies of Canadian children and youth in which Indigenous children were not purposively sampled, including the National Longitudinal Study of Children and Youth (Statistics Canada and Human Resources Development Canada, 2010) and Understanding the Early Years (Government of Canada, 2011). The group wanted a survey that was unique to Indigenous children. Our motive was to create a survey tool that would reflect dimensions of children's experience and parents' goals for children that were important to Indigenous people. We also wanted to avoid unwanted one-to-one comparisons between findings about Indigenous and non-Indigenous children. Generating the Aboriginal Children's Survey was an intensive three-year process. An initial draft survey took 8 h for a parent to answer. It included questions about experiences in the bush, collecting wild bird eggs and berries, drying fish and meat, attending potlaches or participating in ceremonies, living on the land, and learning from one's elders. The survey was eventually pared down to 180 survey questions about Indigenous children's early development and their social and living conditions. The survey was administered orally by Indigenous interviewers in Indigenous languages during visits with Indigenous parents, including about 17,000 First Nations children living off reserve and Métis and Inuit children across the country. This data collection exercise has generated a number of useful publications (e.g., Findlay and Kohen, 2012, Findlay and Kohen, 2013). The survey was not repeated every five years as planned, mainly due to the cancellation of the long form of the census under Stephen

Harper's Conservative government, which prevents creation of a representative sampling frame. Interestingly, throughout the years of deliberation about what questions to include, the technical advisory group members recognized that the tremendous diversity of childhood environments, conditions, and experiences across more than 1,000 Indigenous communities in Canada meant that the uniqueness of Indigenous childhoods could not be accessed and understood through a pan-Canadian survey tool. The resulting Aboriginal Children's Survey contained many of the same development milestones found in surveys or assessment tools developed for non-Indigenous children, such as milestones in gross motor, oral language, social-emotional development, and self-regulation. Still, this was the only instance up to that time of Statistics Canada engaging a technical advisory group composed of civil society leaders who were mostly First Nations, Inuit, and Métis scholars and directors of Indigenous organizations, and the group successfully worked with Statistics Canada to produce a survey that represented Indigenous interests about Indigenous children's wellness and development.

Around the same time as the Aboriginal Children's Survey, in 2007, the Step By Step Child and Family Center (SBSCFC) in Kahnawake Mohawk Territory in Quebec explored the question of whether the standardized and widely used Ages and Stages Questionnaire (ASQ; Squires and Bricker, 2009) was culturally appropriate, whether an "Aboriginal-specific" tool should be created, or whether the ASQ should be adapted to ensure cultural relevance.[1] They wanted a clear picture of the development of each child in their preschool program so they could provide early intervention supports if needed. In a gathering held in Kahnawake in 2010 in which I was fortunate to participate, there was consensus that tools and programs must reflect the unique cultures and linguistic richness of each Indigenous community. We debated whether a new Indigenous ASQ should be created that would include things that Indigenous children learn, including knowledge and skills for living on the land, that non-Indigenous children often do not learn. We debated whether data should be collected to establish developmental norms for Indigenous children so that interpretation of a completed ASQ would be based on understanding what is typical for Indigenous children and not necessarily what is typical for non-Indigenous children. Reluctantly, the group concluded that "given the cultural diversity to be found within the over 650 Indigenous communities in Canada speaking over 50 different languages, the prospect of developing one tool to fit all seems unattainable and, more importantly, ill-advised" (SBSCFC, p. 2). This conclusion contradicted the recommendations of the concurrent, Indigenous-authored Maternal and Child Health Screening Tool Program (Dion-Stout and Jodoin, 2006), which called for Indigenous-led and Indigenous-specific assessment tool construction so that particular learning domains important to Indigenous communities would be included and the tool would be acceptable to Indigenous people. Thus, it was a difficult decision not to form a coalition to advocate for and possibly lead a study to design a tool by and for Indigenous people. The tremendous diversity among Indigenous people in terms of cultures, contexts, and goals for children's development was also the major challenge encountered in constructing a single survey tool for the national Aboriginal Children's Survey described earlier. However, one of the originators of the ASQ, Diane Bricker, participated in our meeting and clarified that, while the intention of each item on the ASQ should remain constant, the details of each item can be adapted to ensure relevance and meaning based on the particular cultural experience of the child. For example, if a child is learning to eat with a spoon rather than a fork, it is acceptable to reflect this in the question. If it is not acceptable for children to be given a mirror to see themselves, another question could be asked that assesses the development of a sense of having a distinctive appearance from other people. In my own study, described subsequently, First Nations in British Columbia (BC) described how they frequently make these kinds of small adaptations to ensure cultural relevance.

The most valuable outcome of the Kahnawake project was the creation of guiding principles for using the ASQ in culturally appropriate ways, encapsulated in the beautifully articulated document "Finding Our Own Way" (SBSCFC, 2015). These principles include 1) making it your own: create a community-based process; 2) involve the broader community; 3) take a capacity-building view; 4) engage the family; 5) provide service worker orientation and training; and 6) review your practice. The guidelines conclude with advice that exhorts those doing assessment to make an effort to really see the Indigenous child: "Any community-based process of screening and assessment must be balanced by a view of discovering both challenges and capabilities. We must celebrate the gifts and respect the differences which are unique to every child and family, and we must have the courage to continue to advocate for the recognition of the critical role Indigenous cultural values and beliefs have in the development of a vibrant, meaningful, pedagogically sound and sustainable educational system for our children" (SBSCFC, 2015, p. 13).

MULTIPLE VANTAGE POINTS ON CHILDREN'S DEVELOPMENT

No assessment should depend on a single source of information, whether this is a tool or a parent interview or observation by a practitioner. Good assessment incorporates multiple sources of information, including observations of strengths and challenges that may reflect the child's cultural context. The persisting concern in Indigenous programs about whether standardized assessment tools can adequately represent Indigenous children's strengths and difficulties has prompted many Indigenous practitioners to create their own checklists, to hone their observational skills, and to

[1]The Ages and Stages Questionnaire (ASQ) is a parent-completed screening tool composed of 19 age-specific questionnaires, with six questions in each of five developmental domains: communication, gross motor, fine motor, problem solving, and personal and social abilities. Recent studies have shown that it is a valid and useful tool for First Nations children. Item content can be adapted to make it relevant to the culture and lifestyle of local children without reducing the validity of the ASQ.

strengthen their capacities to bring educators, caregivers, and specialists together to share impressions of a child's development. The main goal is to tap into observations of the child from different points of view and across a range of activities and settings where the child will naturally be called upon to display different kinds of capacities across sensory, cognitive, language, social, emotional, spiritual, wellness, fine motor, and gross motor domains. The mystique surrounding standardized assessment of young children is wearing off, and the concept of triangulated or multiple sources of observations and insights is gaining acceptance.

The need for multiple viewpoints on a child's development and for an approach that considers a child's development within the context of what is expected and typical for children within their particular community was emphasized in a study of speech-language pathologists' experiences (Ball and Lewis, 2011). Among 70 speech-language pathologists across Canada who had served Indigenous young children for at least two years, 49 reported in an online questionnaire that their standardized measurement tools did not yield valid or useful information and their best practices for early intervention were not helpful in their practice with Indigenous children. They overwhelmingly called for "an altogether different approach"—one that is responsive to local goals and conditions for young children's speech-language development and that actively involves parents and other caregivers as primary supports for children's early learning.

WHICH TOOLS?

The typical pathway from everyday observations of children to more structured processes goes from 1) a system for recording changes in a child's knowledge, skills, and interests, to 2) a more systematic process for monitoring changes, often through narrative approaches or checklists, to 3) use of a screening tool like the ASQ (Squires and Bricker, 2009) or the Looksee checklist[2] (McMaster University, 2020), to 4) referral for diagnostic assessment and 5) referral for service or a determination that no special intervention is needed. In all of these steps, it is essential to have conversations with the child, their primary caregivers, and others who have regular contact with the child, since they can be valuable sources of information and insight.

For all children, developmental monitoring, screening, and assessment can include a wide range of formal and informal, quantitative and qualitative approaches.[3] In Canada, some programs use an existing observation system like the ASQ, and many create their own observation checklists. In Aboriginal Head Start programs in Canada (including approximately 406 in land-based or "on reserve" communities and 134 in urban and northern communities) there is no mandated assessment tool. Programs often combine direct observation with structured observation systems, most frequently the ASQ (Squires and Bricker, 2009) or the Looksee (McMaster University, 2020), the Child Observation Record (HighScope, 2021), or the Work Sampling System (Meisels et al., 2019).

In a study I conducted in 2008, the ASQ was the tool preferred by 82 First Nations in BC who responded to an online survey (Ball, 2008) and it continues to be widely used. However, while ASQ is technically intended as a screening tool to identify children who may need early intervention services, First Nations in BC described using it as a "conversation starter" between early childhood educators and parents. Some First Nations also described using it as an information tool to raise parents' awareness of the wide range of things to notice about their child's growth and development. One parent commented: "I picked up the ASQ form in my parent communication folder at the early childhood center and went over it at home. My kids were playing on the floor, and I started just looking at what they were doing while I was reading the different items on the form, figuring out what they could and couldn't do, or what they were trying to do. The next week was like a course in child development! I was paying attention to so much more and seeing so much more about everything they were learning and how they were each different and the differences between their different ages." Very few First Nations described actually seeking a fully completed ASQ record that was scored and used as a screener.

People who spend a lot of time with a child are usually in the best position to observe the child's progress and to understand their interests, developing skills, and learning needs. Information gathered may include, for example, observations of the child's play; descriptions and observations of their art, music, social skills, and puzzle play; developmental checklists; and the child's performance on formal, standardized tests. Importantly, people close to the child are best able to put these observations into context with reference to the child's opportunities for experiences and practice, the child's culture, and the languages the child may be hearing and learning in their home. With some understanding of child development in context and seeing what other children in the same cultural and language community can do at different ages, parents and educators are often the first to notice when something about a child's development seems off track. It takes a team to raise a child, and all team members are a child's Most Valuable Players!

NARRATIVE ACCOUNTS

Close observation and regular documentation of a child's interests, progress, sources of frustration, and stories the child tells is a good way to monitor a child's development. Conversations with primary caregivers encouraging them to share observations or stories of their child across a range of situations round out a view of the child's progress and needs. Sharing narrative accounts of a child's demonstrations of how and what they learn underpins the "learning stories" approach

[2]The Looksee, formerly known as the Nipissing Developmental District Screener (https://www.lookseechecklist.com/) is completed by a parent or child care professional. It consists of 14 age-specific questionnaires up to age 6. It explores vision, hearing, speech, language, communication, gross motor, fine motor, cognitive, social/emotional development, and self-help. Each questionnaire includes a page of tips for primary caregivers to provide age-appropriate activities and play materials for their child.

[3]A description and review of 25 tools used in early childhood is available on the University of Alberta Community-University Partnership website. https://www.ualberta.ca/community-university-partnership/resources/early-childhood-measurement-tool-reviews/assessment-tools.html. The Early Childhood Development Intercultural Partnerships program at the University of Victoria provides reports on the ASQ and guidance for educators about screening and assessment at http://www.ecdip.org.

that originated in Aotearoa/New Zealand and is increasingly used in early childhood programs around the world (Carr and Lee, 2012). Learning stories is an approach that uses observation, narrative, photos, drawings, and child-selected pieces to create a portfolio that conveys a child's learning and changes over time. This documentation encourages everyone—the child, parent(s), and educators—to "tell their story" about the child's experiences. For example, soon after a child starts a program, the educator observes the child and writes a story about the child's first days. This is sent to the primary caregivers, setting the tone for their relationship with family members as conversational, open, curious, and collaborative. Educators are encouraged to consider how the learning stories recognize and show the child taking an interest, being involved, persisting with difficulty, communicating ideas, and taking responsibility. The practice of pedagogical documentation, which originated with the Reggio Emilia approach to children's programs (see Stacey, 2015) has a similar intention and process to learning stories. Work sampling is also similar, though more structured and focused on certain kinds of developing skills. This and other structured but non-numerical assessment systems typically incorporate the concept of domains of development, which can have the risk of fragmenting understandings of a child while potentially failing to notice skills a child is working on that are not "on the list." Qualitative (or non-numerical) approaches are not innocent of preconceived, typically dominant cultural values. Using multiple approaches to assessment helps to ensure that a child's holistic development is seen and understood.

INDIGENOUS PARENTS' PERCEPTIONS OF ASSESSMENT

Studies have shown that most young Indigenous parents are receptive to the use of mainstream assessment tools. They want to know: Is my child developing well? What can I do to help my child stay on track? Does my child need any special supports? If their child needs extra support, many parents want to know what they can do and where to go for services if needed. This was the conclusion of an "Indigenous Child" study I conducted with four First Nations communities in BC from 2003 to 2008 (Ball and Janyst, 2008). Two communities were land based (on reserve) and two were located in small urban centers. Parents, early childhood educators, community leaders, and Elders were asked to explore the goals, tools, and processes of a collection of developmental screening and assessment approaches and tools. In all four communities, most parents of young children leaned in favor of standardized assessment "when it is done in a good way." Early childhood educators in all four communities also favored formal assessment tools. Elders in all the communities were less favorable towards standardized assessment. Many expressed the view that "our children are gifts on loan to us from the Creator. They all have gifts and should never be seen as deficient." Many Elders commented that assessment was part of a problematic idea that all children should be the same, and that "book smarts" are the most valued asset in mainstream assessment. One Elder commented: "A child doesn't have to be a brainiac to develop their gifts and be successful in life. I bet he could be a good cook or she could be good with animals and we all need people who can do that." Another Elder commented: "They don't ask whether children know their Indigenous language or what children know about how to behave in different social settings or in ceremony. Schools aren't interested in children learning their culture so they don't assess that."

Most study participants commented that the concerns they had with assessment were not about the tools per se; rather, they were concerned about the ways that tools are used. Participants recounted instances of screening or assessment being done in their child's program in ways that were, in my view, unethical and culturally disrespectful. Stories recalled assessment being done without parents' knowledge or informed consent and assessment results being provided to early childhood educators or other professionals but not to parents, with little or no explanation to the child about what was being done and why. One land-based community retrieved a local newspaper article in which results of an assessment done with children in their early childhood program were reported publicly, with a negative comparison to children in the nearby, mostly non-Indigenous community. A parent asserted: "If something like that is going to be done with my child, I want to know about it!" Another said, "If a total stranger is going to take my child into a room and close the door, I need to be there to explain to my child what is happening." In sum, the findings showed receptivity to assessment, especially on the parts of a young generation of parents, as well as concerns—not about the tools but about the process (Ball and Janyst, 2008; Ball and Lemare, 2011).

Bad practice does not necessarily reflect on the utility or validity of the tool itself, but rather on the person who is using it, and how and why they are using it. A good (or adequate) tool in the hands of a poor craftsperson will not produce a useful outcome. Heavy-handed use of mainstream tools by insensitive, unfamiliar practitioners has too often resulted in alienating Indigenous parents, frightening children, and decontextualized interpretations of a child's performance on assessment tasks. Poor practice has produced overdiagnosis of developmental delay, deficits, and disorders, with implications for stigma, inappropriate interventions, exclusion, and, at worst, child apprehension. The importance of contextualized and triangulated interpretation of assessment observations has been discussed previously. The importance of culturally safe and ethical practice will be discussed next.

ETHICAL PRACTICE AND CULTURAL SAFETY

Good process and adaptations of an assessment tool to ensure local relevance and meaning are always possible. Before choosing what types of information-gathering techniques to use, we must ask: 1) What do we want to know about this child? 2) Why do we want to know this? 3) What kinds of information do we need to gather? 4) How will we gather the necessary information? 5) What will we do with this information once we gather it? Thus, the first steps are to know the goal of assessment, consider the wide range of possible approaches, engage in respectful

conversations with primary caregivers, children, and early childhood practitioners before deciding how to proceed, and ensure there is a positive purpose. Informed consent and respectful, relational practice that yields experiences of cultural safety for children and parents are key. It is crucial to have conversations with parents and early childhood practitioners to share initial interpretations of the assessment and ask whether the interpretation concurs with their observations. These conversations can generate responses from primary caregivers or others close to the child about how to understand the results of assessment from a cultural lens and within the context of the child's experiences, exposures to language(s), overall health, family life, and other important determinants of children's wellness. Assessment that indicates a concern must be followed up with referrals to specialized services and navigation support to facilitate a secure and positive connection between children and their caregivers and specialized service practitioners. When children are going to languish on a waitlist for specialized services for months or even years, assessment must be done in conjunction with a commitment to make it matter by providing interim supports to children and families through local child and family programs that can be provided without delay. Assessment can harm if it is done without meaningful follow-through. Professionals cannot claim to be naïve about the general deficit of services and supports to children, especially those living in poverty. Assessment that leaves only a trail of diagnostic labels, stigma, learned helplessness, and a number on an interminable waitlist is unethical.

Being both curious and cautious about standardized systems and external demands for monitoring, screening, and assessment is prudent. When done in a good way, with respect for parent and child rights, awareness of local contexts, and a collaborative, relational approach, these processes can promote engagement with children and their family members, deepen our understanding of each child's unique gifts, and point to ways to best nurture them.

CONCLUDING COMMENT

I have had the privilege of working with Indigenous communities in Canada and in countries in South and Southeast Asia. Without romanticizing childhoods in unacceptably poor and often violent environments, it is remarkable what neurotypical preschool-aged children are able to do—caring for children even younger than themselves, assisting farming parents by planting seedlings in exactly spaced rows, carefully selecting beans with just the right degree of ripeness, sorting and packing fruit into bags, and knowing how to spot a dangerous snake and what to do if one comes close. Many children can manage a complicated tiffin set to feed themselves lunch and have often been toilet trained since they were 1-year-olds. Yet these same children would likely score low on an assessment of "emergent literacy" or "emergent numeracy." Typically exposed to two languages—at least one at home and another in the village—they would likely be seen as delayed on a standard test of verbal fluency, but when they are adolescents, they will likely have multilingual skills that put them far ahead of monocultural children in metalinguistic awareness and proficiency. They would likely be assessed as having the self-regulation needed to sit quietly in a desk or take their turn at a water fountain at school. But in an urban kindergarten in a middle- or high-income country, they would be scored low on the Early Development Inventory by a typical teacher and would be assessed as not school ready even when they are 7 or 8 years old. Yet they are already contributing to family income generation, have exceptional self-care skills, know how to be proactive to protect themselves from monsoon rain and mosquitoes, and have more emotional self-regulation and social skills than many Canadian 10-year-olds. What we assess is what we value. What we value depends on our goals for children's development and the context we are in that supports achievement of those goals for those who hold a sufficiently privileged position in our society to access those supports. Poor children and children in remote and isolated communities, including many Indigenous children, rarely hold that privileged position. And their communities likely provide support for developing other kinds of knowledge and skills, using ways of sensing and knowing that diverge from, or may be in addition to, those of non-Indigenous children in urban settings.

There is widespread agreement that it is useful to assess a child's physical growth, health, motor development, sensory capacity, speech and language development, and emergent self-regulation and self-care skills. These markers seem to be universally relevant and meaningful. Beyond this, we are assessing children against a normatively constructed set of indicators of what it takes to succeed in the world we want children to function in and contribute to, and this is inextricably tied to the dominant culture's values and goals. As children develop, we assess them to see if they are really going to be "our future." In Canada, this means: Will they finish formal education? Will they fit into a neoliberal world as contributors to a capitalist economy as workers, consumers, and commodities? Not all Indigenous families and communities share these aspirations for their children. As a result, for many, their children may be identified as "at risk" of early school failure. Yet they may be "at promise" to contribute to the particular cultural and social community whose future they can help to secure and to a decolonized world where heterogeneity is truly valued. We need to show that we value diversity, not only in our rhetoric, but in our everyday practices, including how we assess children's learning and development.

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The author confirms being the sole contributor of this work and has approved it for publication.

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Kaupapa Māori Assessment: Reclaiming, Reframing and Realising Māori Ways of Knowing and Being Within Early Childhood Education Assessment Theory and Practice

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The history of schooling for Māori has been one of cultural dislocation, deprivation and subjugation. Māori children were viewed as outside the norms of development suffering from "intellectual retardation" which was attributed to disabilities related to acculturation. Traditional western assessment served to further these Eurocentric power ideologies that marginalise non-European peoples and cultures, such as Māori, as backward, inferior and deviant. Kaupapa (philosophical) Māori assessment can be viewed as an assessment approach that is derived from the Māori world, from a Māori epistemological perspective that assumes the normalcy of Māori values, understandings and behaviours. The validity and legitimacy of Māori language, cultural capital, values and knowledge are a given. Kaupapa Māori assessment works to challenge, critique and transform dominant educational perceptions of the Māori child, the nature of learning, pedagogy, and culturally valued learning. This article explores ways that kaupapa Māori assessment builds upon Māori philosophical and epistemological understandings to express Māori understandings of knowledge, knowers and knowings, in order to reclaim, reframe and realise Māori ways of knowing and being within early childhood and assessment theory and practice.

Keywords: kaupapa maori, early childhood, maori ways of knowing, whakatauki/ proverbs, purakau/narratives

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INTRODUCTION

According to the UNICEF Innocenti Report Card 15, Aotearoa, New Zealand is ranked 33rd of 38 OECD countries for educational inequality across preschool, primary school and secondary school levels (UNICEF, 2018). The report states "New Zealand have the largest performance gaps and some of the largest shares of students not reaching [the] modest international benchmark" (p.19). Māori children are disproportionately represented in the group of children who are under-achieving (Ministry of Education, 2009). The impact of successive education policies is still felt today, by Māori children and their families, with many disengaging from education and consistently receiving disproportionately lower outcomes, opportunities and benefits (Rameka, 2012).

> Assessment is the most powerful policy tool in education. . .and will probably continue to be the single most significant influence on the quality and shape of students' educational experience and hence their learning (Broadfoot, 1996, pp. 21–22).

The role of assessment relates directly to the needs of society at any given time in history (Broadfoot, 1996b; Gipps, 1999; Rameka, 2012). Kaupapa Māori assessment has an important role to play in the struggle for educational equality for Māori in Aotearoa, New Zealand's education system. Kaupapa Māori assessment builds upon Māori philosophical and epistemological understandings to express Māori concepts of assessment (Rameka, 2012). It involves a process of reclaiming, reframing and realising Māori ways of knowing and being as a basis for early childhood education (ECE) and assessment theory and practice. This article references two Kaupapa Māori Assessment research projects. The first, *Te Whatu Pōkeka*: *Kaupapa Māori Assessment for Learning*: *Early Childhood Exemplars* (Ministry of Education, 2009), aimed to develop a resource that would stimulate debate and encourage the sharing of experiences and perspectives of Kaupapa Māori Assessment practices. It focused on Kaupapa Māori early childhood services validating, sharing and building on the values, philosophies, and practices related to assessment based on kaupapa Māori culture and values. The second project, *Te Whatu Kākahu: Assessment in Kaupapa Māori Early Childhood Practice* (Rameka, 2012) aimed to make a change for Māori children by challenging, critiquing and transforming dominant educational perceptions related to views of the Māori child, the nature of learning, pedagogy and culturally valued learnings.

European Assessment of Māori

From the establishment of European schooling for Māori, missionaries regarded the civilisation of Māori as both a humanitarian and a religious duty. They positioned Europeans, more particularly upper and middle class Europeans, at the pinnacle of civilisation, more biologically evolved than any other race or class. This stratification of humans, and their associated levels of intellect and capabilities, was promoted by movements such as Social Darwinism and Eugenics, which advocated for racial improvements involving the culling of the weaknesses of the lesser races (Rameka, 2012). According to Harris (2007), p. 17, "The Eugenicists believed that intervention could either eliminate the flaws of the lower classes and black peoples, or manage them in ways that were acceptable to the white upper and middle classes."

Intelligence testing and child studies in the early 20th century were utilised to reinforce thinking about the racially inferior Māori child. IQ and mental ability tests provided evidence, confirming the presumption of inferior innate intelligence (Harris, 2007; Rameka, 2012). Furthermore, Māori children were considered to use a "restricted language code" and to be "suffering a pathology." These pathologies were deemed to result from a "deficient cultural background" (Walker, 1991, p. 9). Over successive years these deficit perspectives of Māori children continued to inform and justify successive education policies. Durie (2006) states that "the stereotypic low achieving Māori student becomes a self-fulfilling prophecy, compounded by policies . . . that target Māori because they are "at risk" rather than because they have potential" (p. 16).

Over time traditional western assessment served to further these Eurocentric power ideologies that positioned non-European peoples and cultures, as backward and deviant (Dahlberg et al., 1999). Broadfoot (2000) notes that assessment practices were also ". . .the vehicle whereby the dominant western rationality of the corporate capitalist societies typical of the modern western world, were transmitted into the structures and processes of schooling" (p. 204). These assessment practices reflected western thinking, exemplifying notions of rationality and power, and were instrumental in the development of western schooling, including its structures and procedures (Broadfoot, 2000; Gipps, 2002).

Traditional Māori Assessment

In traditional Māori society, learning was greatly valued. It often began before birth with pregnant women and new mothers taking part in learning opportunities with their children and unborn children to expose them to the histories and knowledge of their people. This learning progressed through life. Children needed to acquire the relevant skills, expertise and knowledge to contribute to the community, and in so doing support the wellbeing of present and future generations. Teaching and learning were therefore important community duties (Rameka, 2012). The community was also central to the assessment of learning, with learning, judged by the levels of family and community enthusiasm and support. Hemara (2000) maintains that:

> Māori learners were assessed by their peers, teachers and all those who were affected by the results. When a whakapapa (genealogy) recitation or other activity was being performed the listeners sounded their approval or otherwise. This showed how well the learner lived with the information they had accumulated and how well the assessors knew the learner and the subject under scrutiny (p. 39).

There were many opportunities within Māori cultural gatherings for learners to demonstrate their knowledge development (Ka'ai, 2004). Expectations of learners included critically reflecting on their own performance with improvements expected when the next assessment opportunity occurred (Hemara, 2000). According to Barnhardt and Kawagley (2005) this type of education and assessment of learning was common in indigenous societies. They explain that Indigenous people, "traditionally acquired their knowledge through direct experience in the natural world. For them, the particulars come to be understood in relation to the whole, and the laws are continually tested in the context of everyday survival" (p. 10).

Although most of the transmission of Māori knowledge was through everyday living there were formal structures of learning in place commonly known to as whare (Melbourne, 2009). Whare or houses were not always physical structures instead were "metaphors for housing philosophies and identifying stages of

educational progression" (p. 75). Melbourne explains a Whare-Mauokoroa was where "...the child's level of attention, inquisitiveness, or understanding would be gauged in order to help determine their natural tendencies" (p. 73), and decisions where then made as to what and where further learning or instruction could occur.

Another whare, the Whare Taikōrera, had a curriculum, based on a pedagogy of play, exploration and discovery. Melbourne (2009) states "the myriad of games that were such a favourite pastime of traditional Māori societies all served a purpose of challenging the intellectual, physical, emotional and metaphysical attributes of children" (p. 74). The games encouraged the development of not only important skills but also emotional discipline. Children who demonstrated the necessary ability and agility, as well as the required emotional and mental composure advanced to the next whare. The child progressed when all the required physical, mental and emotional abilities and skills had been proven.

This article will firstly, outline traditional Māori perspectives and attitudes related to knowledge, understandings about ways these knowings were passed down, and traditional images of the child or learner. Secondly a brief overview of Kaupapa Māori Theory is provided highlighting its centrality in addressing cultural and educational inequalities and disparities inherent within the education system. Kaupapa Māori assessment is then outlined and key features identified. Finally examples of how ECE services have reclaimed, reframed and realised Māori ways of knowing and being within early childhood assessment thinking and practice are articulated.

MāORI KNOWLEDGES, KNOWINGS AND KNOWERS

Knowledge

From a traditional Māori perspective knowledge was a taonga (treasure), passed down from ancestors, therefore taken seriously, treated with respect and preserved intact. Knowledge did not belong to individuals, instead belonged to the community. Individuals were the store houses of the group's knowledge and wisdom, with a responsibility to utilise it for the benefit of the collective and not for personal gain (Tolich, 2001; Rameka, 2012). (Makareti, 1986, pp. 151–152) makes the point that important tribal knowledge was shared from the elders:

> . . . children learn much in the way of folk-lore, legend, genealogy, and tradition...The old man would teach them their line of descent from that ancestor, and from other noted ancestors back to the time of the arrival of the great fleet...They told the children how dear their home and lands were to them...they taught the names of birds of the forest, and the different tree and shrubs and plants...and wonderful stories of the mountains, rivers, and streams...They talked of these and many other things until the little people fell asleep. . . so they grew up with the stories and deeds of their ancestors.

Today, these traditional notions and knowledges continue to influence the beliefs of most Māori, with traditional values resonating strongly in contemporary Māori society (Harmsworth, 2013).

Knowings

Before Europeans arrived in Aotearoa, New Zealand, teaching and learning was sustained by sophisticated knowledge systems, structures, educational practices and principles. Teaching and learning involved a blend of processes that worked to maintain and broaden knowledge and foster understandings of ways to harness, sustain, and extend resource bases (Hemara, 2000; Berryman, 2008; Rameka, 2012).

Māori Marsden (1992) describes how the creation whakapapa (genealogy) provides a three dimensional perspective of the world, learning and knowledge acquisition. The first dimension te korekore, the realm of potential being and energy. It is where the "seed-stuff of the Universe and all created things gestate" (Marsden, 1992, p. 134), where there is infinite potential for growth and learning. The second, te pō, the realm of becoming, of stretching, uncertainty, hesitancy, negotiation and growth. Finally, te ao mārama, the realm of being, realization, enlightenment and clarification (Ministry of Education, 2009; Rameka, 2016).

Two key concepts are articulated in Marsden's description of the unfolding world. The first is continuity, referring to a world that is continually being created and recreated, with no end point. This mirrors children's learning and knowledge development, and consequently assessment, with children's understandings and thoughts being continuously developed and redeveloped, defined and redefined. As with the Universe, learning has no end point, instead it is an ongoing life long process. The second concept acknowledges that the Universe is dynamic, a stream of processes and events that are lineal rather than cyclical. He makes the point however that this lineal movement is a two-way process, referencing the "the spirits of the departed descending to Hawaiki and that which is in the process of becoming ascending to the world of light" (Marsden, 2003, p. 135). This concept refers to the two-way traffic of ideas, thinking and understandings, reflecting the dynamic nature of knowledge acquisition and learning. "Some knowledge and understandings, ascends from potential being, into the world of becoming where it challenges and stretches thinking, into the world of being, of enlightenment and clarification. Other knowledge and understandings descend from the world of being, from a place of knowing and certainty, to a world of becoming, or uncertainty" (Rameka, 2012, p. 67). Here once confidently held views, ideas and understandings are "challenged and interrupted, and if unable to stand up to the critique of becoming, are relegated to the world of potential being, or nothingnesss" (p. 66). Learning therefore is not just an accumulation of ideas and understandings but a vigorous process of unceasing "germination, cultivation and pruning" (p.66).

Knowers

Mokopuna can be translated as "grandchild/ren" and "child/ren." Moko is a traditional tattoo, which is applied to the face and other body parts of both men and women, and are unique to their owners. (Love 2004, p. 50), explains

> One's moko was one's sign; to see the sign was to know the person. A puna ...is a spring of water. Thus, the two concepts...combine as the representation of... the ongoing spring of the people. They are surface representations of the spring that originates within Ranginui [Sky Father] and Papatūānuku [Earth Mother] and flows through life until it reaches and becomes one with the sea. Children are the temporal signs or manifestations of the tupuna [ancestors].

Tamariki is another word for children. "Tama is derived from Tama-te-ra the central sun, the divine spark; ariki refers to senior most status, and riki on its own can mean smaller version." (Pere, 1991, p. 4). Tamariki/Mokopuna were viewed as the repository of the wisdom, strengths, talents and treasures of their ancestors which they held in trust for future generations. They were the tribe and community's greatest resource. Learning the required skills, attitudes to work, moral codes, and their roles and expectations was critical.

KAUPAPA MāORI THEORY

Since colonisation, Māori have struggled to have language, culture and land rights acknowledged and validated. Kaupapa Māori theory evolved from the increasing political consciousness and discontent in the 1970, 1980 s, about the prevailing western theorising and positioning of Māori as culturally, linguistically, intellectually and socially deficit (Berryman, 2008). Adding to this raised consciousness, was the growth of a Māori renaissance, in the late 1980, 1990 s, which centred on Māori cultural aspirations, philosophies, preferences, and practices (Bishop, 2005; Mahuika, 2008; Haitana et al., 2020). (Walker, 1996, p. 156) explains that, "After twenty-five years of trying to reform the education system from within to make it more bicultural, Māori leaders realised that the co-operative strategy was not effective." Māori rejected the underlying prejudices present in previous educational initiatives and policies. "Kaupapa Māori responded to the dual challenge of imminent Māori language death and consequent cultural demise, together with the failure of a succession of government policy initiatives" (Bishop and Glynn, 1999, p. 62).

Kaupapa is a word for philosophy strategy, principle, a plan or a way to proceed. Within the concept of kaupapa is the notion of proceeding purposely and strategically (Smith, 1999). It involves resistance and revitalisation, from principles rooted in te ao Māori (Māori world) (Berryman, 2008). (Pihama, 2015, p. 6) states "This Kaupapa Māori knowledge is the systematic organisation of beliefs, experiences, understandings and interpretations of the interaction of Māori people upon Māori people, and Māori people upon their world." Kaupapa Māori, according to Smith (1997) is both theory and transformative praxis. It critiques and resists, existing structures, and seeks transformative strategies, in order to centralise Māori cultural perspectives and move Māori knowledge from its marginal position of 'abnormal' or 'unofficial knowledge', to equal in status to Western knowledge. According to Barnes (2000) "Kaupapa Māori begins as a challenge to accepted norms and assumptions about knowledge and the way it is constructed and continues as a search for understanding within a Māori worldview" (p. 4). This process of critical reflection, reclamation and reconciliation is a fundamental feature of the development and implementation of Kaupapa Māori assessment understandings and practices in ECE.

KAUPAPA MāORI ASSESSMENT

Kaupapa Māori assessment is deeply embedded within Māori ways of knowing and being which are fundamentally distinct to mainstream western assessment. Findings from the *Te Whatu Kākahu: Assessment in Kaupapa Māori Early Childhood Practice* (Rameka, 2012) research highlighted a number of key understandings underpinning kaupapa Māori Assessment.

Kaupapa Māori Assessment is Culturally Located

Kaupapa Māori assessment is an assessment approach that is derived from the Māori world, from a Māori epistemological and ontological base where the normalcy of Māori values, understandings and behaviours are a given (Smith, 1992; Rameka, 2012; Rameka, 2013). The validity and legitimacy of Māori cultural knowledge, values and language are taken for granted with Māori experiences, processes and systems seen as central to its theoretical base and philosophical framing. These systems include tools, symbols, shared meanings, patterns of reasoning, language, and customary practices that are a prerequisite to competently participating within a particular social group, culture or community (Weenie, 2008; Rameka, 2012).

Kaupapa Māori Assessment is Spiritually Located

From a Māori worldview, the spiritual and physical worlds are intimately connected with activities and events in the everyday secular world influenced and interwoven with powers from the spiritual world. Furthermore, all things can be seen as having spiritual origins and being directly connected to the gods, for example Māori worldviews and ideas of knowledge and learning originated in Māori understandings of the Universe and the creation of the Universe. (Berryman, 2008). These spiritual connections are inextricably linked to whakapapa (genealogy) and "being" Māori. Whakapapa is fundamental to Māori ways of knowing and is at the very core of what it means to be Māori (Mahuika, 2019). Kaupapa Māori assessment is located within these interpretive systems and therefore must value, and acknowledge these spiritual worlds.

Kaupapa Māori Assessment Reflects Māori Perspectives of Knowledge, Knowing and Knowers

Understandings of what children should learn, why it is important to learn, and how children should learn are key to supporting children's learning (Moss, 2008). Lund, (2008, p. 33) claims that "How learners' efforts are evaluated reflects a particular view of knowledge and what counts as relevant competencies, goals and results." The question with regard to assessment is, whose knowledge, knowings and competencies are recognised, validated and the basis for assessments. Māori definitions of knowledge, knowings and what is regarded as relevant competencies are inherent within Kaupapa Māori assessment.

Kaupapa Māori Assessment Reflects Māori Images of the Child

Kaupapa Māori assessment locates the child within Māori interpretive systems and emphasises the importance of knowing the child, who they are as Māori: their whakapapa (genealogy); their iwi (tribe), hapū (subtribe) and whānau (family); and their tūrangawaewae (place to stand) (Berryman, 2008; Cheung 2008). The child is perceived as taonga (treasures) with spiritual unity with the land, with the people, and with the Universe at large. The child is not only embedded within the spiritual world, he/she is also imbued with spiritual traits such as mana (power) tapu (sacredness), mauri (life essence) and wairua (soul), inherited from ancestors, and fundamental to their holistic wellbeing (Rameka, 2012). Kaupapa Māori assessment acknowledges the spiritual nature of the Māori world and spiritual traits within the Māori child.

Kaupapa Māori Assessment Involves the Reclamation and Reframing of Historical Māori Ways of Knowing and Being Within Assessment Theorising and Practice

Colonisation, land loss, assimilation, urbanisation, language loss, and successive discriminatory education policies have shaped and transformed historical Māori ways of knowing and understandings what it means to be Māori. Today Māori ways of knowing, and being Māori, involves the weaving of complex combinations of realities, understandings and experiences. Translating these complexities into ECE and assessment practice requires what Parker (2000) describes as an unmasking of identities that do not fit, that are not one's own, but have been unconsciously internalized. It involves the reclaiming of identities and understandings once denied to them, and reframing these for contemporary environments. This unmasking or reclaiming of historical Māori ways of knowing and being, requires an exploration of the cultural tools, practices, and artefacts, traditionally utilized by Māori to hand down knowledges, worldviews, values, histories, teachings, beliefs, genealogies, and arts to successive generations. These transmission techniques include: pūrākau (symbolic storying), whakataukī (proverbs/sayings), waiata (songs/chants), whakapapa (genealogy recitations), whakairo (carvings), haka (dance), karakia (prayer), pakiwaitara (oral storytelling).

RECLAIMING, REFRAMING AND REALISING MāORI WAYS OF KNOWING, BEING AND DOING

In the next section examples of how Māori ways of knowing, being and doing have been reclaimed, reframed and realised within early childhood assessment thinking and practice are presented.

Pūrākau—Traditional Narratives/Myths

Pūrākau is a term often used to refer to Māori and tribal narratives, myths and legends (Lee, 2009). The telling and retelling of stories is a critical element of retaining knowledge from the past and transmitting it to successive generations (Rameka, 2011; Rameka, 2012; Hikuroa, 2017; Woodhouse, 2019). Tribal narratives are metaphorical, in nature, in that the telling is fundamental to preserving moral and historical teachings and values. "They are an important part of Māori symbolism, culture and world views, and include philosophical understandings and thinking, cultural norms, and behaviours fundamental to Māori views of self and identity" (Rameka, 2016 p. 392).

Walker (1978) points out that mythology can be compared to putting a mirror on culture, in that it reflects the philosophy, behavioural aspirations and norms of the people. Myths operate in two ways: firstly, as an outward projection of the architype providing a measure for perfect performance, and, secondly, as instruction and authentication, reflecting on current social norms, prescriptions and behaviours. These views of reality "permeate cultural narratives and logic, and are the basis of world views" (Rameka, 2013, p.12). Traditional Māori myths and legends were "deliberate constructs used by ancestors to encapsulate and condense their world views, their ideas about reality and their relationship between the spirit world, the Universe and man in easily assimilable forms" (Rameka, 2016, p. 393). They offered culturally authentic models for behaviour, including ethics, values, and morals that guided Māori ways of being interacting within the world (Patterson, 1992). Pūrākau are therefore part of the cultural symbolism that generates the foundation of a Māori worldview, one that is also maintained in many traditional cultural practices and still forms an important part of Māori society and identity today (Berryman, 2008).

Māui-tikitiki-a-Taranga was an ancestor hero, known throughout Polynesia. He had godly origins but also carried the seeds of humanity (Keelan, 2006; Rameka, 2011; Rameka, 2012). His names provide an insight into his character: Māui-nukurau (trickster), Māui- mohio (great knowledge), Māui-atamai (quick-witted), Māui-toa (brave) and Māui-tinihanga (of many devices). "He was quick, intelligent, bold, resourceful, cunning and fearless, epitomising the basic personality structures idealised by Māori society" (Walker, 1990, p.15). The Māui-tikitiki-a-Taranga narratives therefore

present a representation of culture, reflecting the philosophy, norms and behavioural aspirations of ancestors. The following Māui-tikitiki-a-Taranga assessment framing was developed by a Māori ECE service working on the *Te Whatu Kākahu: Assessment in Kaupapa Māori Early Childhood Practice (2012)* project. The service utilized Māui-tikitiki-a-Taranga characteristics as the basis for their assessment framing, identifying characteristics that reflected te Ao Māori and kaupapa Māori philosophy:

- Mana: identity, pride, inner strength, self-assurance, and confidence.
- Manaakitanga: caring, sharing, kindness, friendship, and nurturance.
- Whanaungatanga: developing relationships, taking responsibility for oneself and others.
- Whakatoi: cheekiness, spiritedness, displaying and enjoying humour, and having fun.
- Rangatiratanga: confidence, self-reliance, leadership, standing up for oneself and others, perseverance, determination, and working through difficulty.
- Tinihanga: cunningness, trickery, deception, testing limits, challenging, questioning, curiosity, exploring, risk taking, lateral thinking. (Rameka, 2012; Rameka, 2013; Rameka, 2016).

What is clear from exploring the Māui-tikitiki-a-Taranga narratives is that certain themes, morals, modes of behaviours do not necessarily align with western (teacher education) perspectives of acceptable behaviour and ways of being in the world. Notions such as whakatoi, translated as "cheekiness," "annoying" or "teasing," do not tend to be highlighted in mainstream ECE as appropriate behaviour, but make sense in the context of the indulged, precocious, high-spirited Māori child. An even harder concept to reconcile in education is tinihanga or "cunningness," "deception" and "trickery," which are recurring themes throughout Māori narratives and when utilised for the benefit of the community are valued and celebrated. The Māui-tikitiki-a-Taranga narratives present an illustration of culture, reflecting the philosophy, norms and behavioural aspirations which can provide pathways from the past into future including ECE assessment practice (Rameka, 2012; Rameka, 2013; Rameka, 2016).

Whakataukī—Proverbs/Sayings

Whakataukī are another means of handing down ancient wisdom and knowledge from the past to future generations, to guide people's lives, and support aspirations for today and the future (Patterson, 1992; Hemara, 2000; Rameka, 2015; Rameka, 2016). An example is the well-known whakataukī "E kore au e ngaro, he kākano i ruiruia mai i Rangiātea" (I will never be lost; the seed was sown in Rangiātea), stresses that importance of knowing ones' whakapapa (genealogy) and connections to Rangiātea (the Māori spiritual homeland). It not only underlines the importance of a secure Māori identity to the well-being of the individual, but highlights an interpretive system that encompasses Māori world views, including the spiritual origins and direct connections to the gods (Berryman, 2008; Rameka, 2015; Rameka, 2016).

Within whakataukī were messages about valued characteristics, personal virtues, modes of behaviour, life lessons, and appropriate courses of action (Rameka 2015). Patterson (1992) gives some examples:

- Mauri tū, mauri ora; mauri noho, mauri mate—*He who stands lives, he who sleeps dies* (p. 51)
- Kāore te kūmara e korero mō tōna mangaro—*The kūmara does not say how sweet it is* (p. 52)
- He ika kai ake i raro, he rāpaki ake i raro—*As a fish begins to nibble from below, so ascent of a hill begins from the bottom* (p. 55)

The importance of the past, and the authority given to the words and deeds of the ancestors, is clear in well-known whakataukī such as "Ehara taku toa i te toa takitahi engari he toa takitini" *I come not with my own strengths but bring with me the gifts, talents and strengths of my family, tribe and ancestors.* This whakataukī highlights the importance of children knowing who they are and their ancestors, as does, "Puritia ngā taonga a ngā tūpuna mō ngā puāwai o te ora, ā mātou tamariki" *Hold fast to the cultural treasures of our ancestors for the future benefit of our children* (Ministry of Education, 2017, p. 51). Another "Kia mau koe ki te kupu a tou matua" "*Hold fast to the words of your parent or ancestors*" (Patterson, 1992, p. 65) emphasises the value put on the words and messages of ancestors for successive generations. Another message is found in "E kore e hekeheke, he kakano rangatira" *"I am not declining [like the sun], I am of chiefly stock"* (Patterson, 1992, p. 66). This underscores the relationship between rangatira "noblemen" or "chiefs" and children (Rameka, 2016).

The term rangatira can be translated as nobleman or chief. It encapsulates many Māori virtues, aspirations and human possibilities, including ideas of beauty, strength and courage (Patterson, 1992; Rameka, 2012; Rameka, 2013; Rameka, 2016). Within a Māori worldview, rangatiratanga (chieftainship) includes a focus on individuals reaching their highest potential in order to expand and deepen their talents and skills, thus strengthening and enhancing the whānau or collective (Macfarlane et al., 2005; Rameka, 2012). "A feature of a rangatira is their innate chiefly qualities, inherited from ancestors, qualities inherent in all Māori children" (Rameka, 2012, p.236). The following outline of rangatira qualities was identified as an assessment frame by a Māori ECE service who worked on the *Te Whatu Kākahu: Assessment in Kaupapa Māori Early Childhood Practice* (Rameka, 2012) project:

- Maia– confidence/competence,
- Haututu– exploring/seeking,
- Mahitahi– cooperation/group endeavour,
- Kawenga– taking responsibility,
- Manaakitanga– caring/nurturing/loving,
- Hiringa– determination/perseverance/persistence,
- Pukumahi– hardworking/diligence,
- Whanaungatanga– relationships/connectedness,
- Rangimārie—peacefulness/overall wellbeing.

CONCLUSION

This article outlines ways that kaupapa Māori assessment, utilising Māori philosophical and epistemological understandings, is able to contribute to ECE assessment theory and practice. Kaupapa Māori assessment contests historical educational perceptions of the Māori child, the nature of learning, pedagogy and culturally valued learnings and seeks alternatives that are embedded within Māori ways of knowing and being. It advocates for the unmasking and refuting of identities assigned to Māori by others, but sometimes unconsciously internalized, including perceptions of inferior intelligence, culture, knowledge and values, within an education system that upholds western cultural and educational superiority, privilege and truths. This unmasking and reclaiming requires an exploration of traditional Māori knowing, being and doing, and what it means to 'be Māori' in practice and how it impacts on contemporary early childhood teaching, learning and assessment theory and practice, including; routines; rituals; environments; curriculum and programme development; planning, assessment and evaluation procedures; communications with family and community; and appraisals.

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The author confirms being the sole contributor of this work and has approved it for publication.

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"Momma, Today We Were Indian Chiefs!" Pathways to *Kan'nikonhrí:io*† Through Indigenous Holistic Education

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The compartmentalization of knowledge and of mind, body, and spirit to schooling is the antithesis of Indigenous epistemologies and the philosophical and relational aspects of assessment making. For Indigenous students, this contributes to the cultural mismatch between home and school. In the classroom there is continued focus on colonial methods of assessment and little emphasis on children's natural processes of learning. Assessments highlight what students know, rather than how they know. Assessments impact student's self-esteem, self-confidence, and influence their future prospects during their educational journey. Public education and its emphasis on grading and standardized tests as measures of learning, neglect to understand the unique and diverse ways of knowing that children come to their classrooms with. Kan'nikonhrí:io (Good Mind) means to move through life with respect, dignity, honor and responsibility and is necessary for becoming fully Kanien'kehá:ka or Onkwehón:we (Original People). Non-Indigenous educators and institutions serving non-Indigenous students can benefit from the inclusion of Indigenous perspectives and epistemologies through raising awareness of Indigenous peoples history and contemporary realities, while enhancing a better understanding of the increasing cultural and learning diversity of student bodies. When children can bring their whole selves to their learning experience, including their spirits, while connecting the larger community, they can feel motivated for self-discovery through their lifelong adventure in learning, and they can be uplifted as they grow to be whole human beings with Kan'nikonhrí:io (Good Minds) and kind hearts. In this article, I offer a reflection on Indigenous holistic education and advocate for Indigenous epistemologies in public education including assessment practices as a way to address the TRC Calls to Action. Adapted from the AFS model, I offer a modified example of Indigenous holistic education here.

Keywords: Indigenous, education, holistic, assessment, reconciliation, Akwesasne, Mohawk, Haudenosaunee

> "*Education is what got us into this mess. . .but education is the key to reconciliation.*" – *The Honorable Justice Senator Murray Sinclair* (2015)[1]

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†*Having Kan'nikonhrí:io (Good Mind) comes from the Haudenosaunee teachings and means to move through life with respect, dignity, honor and responsibility*

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[1]Watters, H. (2015, June 1). Truth and Reconciliation chair urges Canada to adopt UN declaration on Indigenous Peoples. *CBC News*. http://www.cbc.ca/news/politics/truth-and-reconciliation-chair-urges-canada-to-adopt%20undeclaration-on-indigenous-peoples-1.3096225

INTRODUCTION

As I write this, we have been in a global pandemic for almost 2 years. The health, justice, economic, and educational inequalities between Indigenous and non-Indigenous peoples has greatly magnified during this time. It has been 5 years since the Truth and Reconciliation Commission's (TRC) Calls to Action were put forth. The Calls address all aspects of Indigenous peoples lives in Canada including: "#62 Develop and fund Aboriginal content in education" and "#63 Council of Ministers of Education Canada to maintain an annual commitment to Aboriginal education issues[2]." According to the CBC website tracker "Beyond 94, Truth and Reconciliation in Canada[3]," both of these Calls are listed as "In progress – Projects proposed" and only 13 out of 94 calls have been completed, 20 have not started at all, and the remainder have been proposed or are underway (Jewell and Mosby, 2020).

The public education system has been long overdue for an overhaul which has become most apparent during the pandemic amid lockdowns, spurts of online learning, mandated masking of children all day long, haphazard ventilation systems, and constantly changing regulations that confuse and anger both parents and children.

In addition, Indigenous children continue to face ongoing colonial structures that place education at the bottom of the priority list. The Canadian federal government has made promises to improve education for First Nations children, but funding continues to be inadequate. "Beyond 94" reports that there is still no Indigenous education legislation underway that would support sufficient education funding, improvement of educational attainment, development of culturally appropriate curricula, protection of Indigenous languages, and increased parental participation in their children's education (see footnote 3).

In the classroom there is continued focus on colonial methods of assessment and little emphasis on children's natural processes of learning as reflected in Indigenous epistemologies. Assessments highlight *what* students know, rather than *how* they know. Assessments impact student's self-esteem, self-confidence, and influence their prospects during their educational journey. Public education and its emphasis on grading and standardized tests as measures of learning, neglect to understand the unique and diverse ways of knowing that Indigenous children come to their classrooms with.

Western colonial norms of education pervade every aspect of schooling from curriculum, institutional physical structures, policies, organization, communication, dress, and assessment (Trumbull and Nelson-Barber, 2019). The compartmentalization of knowledge and of mind, body, and spirit into schooling, sports, and church, is the antithesis of Indigenous epistemologies[4] and the philosophical and relational aspects of assessment making. For many Indigenous students, this contributes to the cultural mismatch between home and school.

Indigenous epistemologies are grounded within one's inner spiritual forces that as Willie Ermine states, "connects the totality of existence – the forms, energies, or concepts that constitute the outer and inner worlds" (Ermine, 1995). To understand the external, Indigenous ways of knowing turn to the inner spaces of our soul or spirit. There is holism in Indigenous epistemologies that recognizes the energy or force that exists within and between all living things, including the cosmos, our ancestors, and the unseen world. The very purpose of life is to uphold this worldview, to transmit this knowledge to future generations, and to ensure all of humanity benefits from remembering our purpose as human beings. A fragmentary Western world view severs the holistic framework for recognizing, nurturing, and maintaining the connection between the seen and unseen worlds.

In this essay, I offer a reflection on Indigenous holistic education and advocate for Indigenous epistemologies in Canadian public education including assessment practices to address the TRC Calls to Action. I first provide an overview of the Akwesasne Freedom School (AFS) and highlight the ways that this independent Mohawk school is grounded in Haudenosaunee worldviews which emphasize a child centered approach to teaching and learning and where children's unique gifts and talents are nurtured. I share narratives of my family experiences within a western education system weaving threads that link across generations from my grandfather's time at the Carlisle Indian School to my son's current school experiences where there is little emphasis on identifying gifts and talents, a lack of Indigenous content and a fragmented approach to learning that is counter to holistic frameworks such as what is offered at the AFS. I explore Indigenous ways of knowing in education, the learning spirit, and offer alternatives to western models of assessments based on Indigenous holistic education. Finally, I imagine what education could be in the context of Indigenous holistic education frameworks, decolonization and reconciliation.

First, I must position myself with a proper introduction to who I am and what informs my own ways of knowing. I am a *Kanien'kehá:ka* (Mohawk) scholar and a mother to a young child in the public education system in Quebec and whose experiences I share here. As an Associate Professor of First Peoples Studies, I am steeped in unraveling and reconstructing my own colonial education experiences, building up Indigenous pedagogy for my students, and advocating for my child's educational needs.

THE AKWESASNE FREEDOM SCHOOL

In 2015 I published the text, Free to be Mohawk: Indigenous Education at the Akwesasne Freedom School, which is based on my doctoral research with an independent Mohawk language and cultural immersion school in my home community. The book is an exploration into the intersections of language, culture, and identity and offers a framework for holistic Indigenous education

[2]www.nctr.ca

[3]https://newsinteractives.cbc.ca/longform-single/beyond-94?&cta=1

[4]For further explanations on Indigenous epistemologies see Kovach, M. (2010). *Indigenous methodologies: Characteristics, conversations, and contexts.* University of Toronto Press and Wilson, S. (2008). *Research is ceremony: Indigenous research methods.* Fernwood.

based on Haudenosaunee[5] worldview. The Akwesasne Freedom School (AFS) is a space for children to explore their inner worlds, a place that instills a sense of kinship and connection to all living things, is heavily centered within the context of an Indigenous community. The AFS embodies the value of relationality while providing a nurturing environment for every child's unique gifts to be identified, respected, and elevated so that every child may eventually become a whole human being or fully Kanien'kehá:ka.

The curriculum at AFS has strong foundations in Haudenosaunee philosophy and cosmology providing the means with which teachers assess children's progress using portfolios as measures of achievement. AFS teachers are grounded in the cultural process of identifying the individual and diverse gifts of children and nurturing those gifts throughout their educational journey which is consistent with the Haudenosaunee philosophy of considering our actions of today and the impact on the next seven generations into the future (White, 2015).

In traditional Haudenosaunee education, it was the elders who noticed and nurtured each child's unique gifts and talents so they may grow to become strong members of their community. When children are supported in such a way, they have freedom to explore their interests and strengths and they in turn become positive contributing members of the community.

The gift each child possesses is unique and takes patience, kindness, and a keen observation by teachers and community to help identify and nurture. Teachers at the AFS recognize that ALL children are gifted and each of them deserves to be taught in the way that they learn best. In supporting such gifts, children are cradled in a deeply rooted spiritual practice that positively contributes to their sense of self, gives them confidence as they blossom into adulthood, while allowing them the freedom to express themselves.

Akwesasne Freedom School parents share how their student's gifts of singing and art were enhanced at the AFS. One child went on to pursue her gift of singing with a traditional women's singing group. A teacher explains that a "hyper child" will "be my gym instructor." Even those students who might be perceived as "difficult" are not ignored: "There was this one girl, they said 'she's so mean, so terrible,'. . .I said she's going to be our leader because she has that strong spirit. . .Don't take that out of her. We're going to need her to stand up for us someday" (White, 2015, p. 102).

In mainstream public education with overcrowded classrooms, teacher shortages, lack of funding, inadequate infrastructure, and inefficient or absent support for neuro-diverse or learning challenged students, individual attention is often impossible, and everyone is treated the same. Therefore, the gifts of these precious children often go unrecognized, are forgotten, and become buried within their hearts and minds. It is a tragic disservice to these children who potentially lose out on finding their way through life, consumed in a capitalistic society that appears to value individualism and competition above all else. However, the AFS demonstrates that when there is a slowing down to the present moment, allowing for an opening of authentic deep connections, while the focus is on who they are as children, rather than on who they will become, there is space for their diverse gifts and talents to flourish.

[5]The Haudenosaunee Confederacy consists of the following original Nations: Mohawk, Oneida, Onondaga, Cayuga, and Seneca. Tuscarora were added to the original Confederacy later, thus we are known as the Six Nations of the Haudenosaunee Confederacy.

NEURODIVERSITY IN QUEBEC

I had hoped my son Skye, could benefit from a program like the AFS. In the years I was editing the book for publication as a mother to a young child, I often thought about what his education would look like. We lived too far from Akwesasne and there were limited opportunities for alternative education in the public or private sector where we live in Montreal.

I had another problem. I lived in Quebec where French school was mandatory without an English eligibility waiver, which was only obtained if either parent was educated in English within Canada. I grew up and did all my schooling in the U.S., in English. This doesn't count however, because I did not go to school within the boundaries of Canada. I worked at an English-speaking University, and I didn't know a bit of French. I was beside myself with worry about my child being forced into a colonial institution that was already devoid of Indigenous curricula and worldview and to top it off, in an unfamiliar language forced upon him, all while in our own traditional territory.

Like many Indigenous children, my son knows far more about the history of colonialism than his non-Indigenous peers because this history informs and shapes our everyday lives. Skye is aware of Indian Residential Schooling and settler colonialism and is resistant to learning French because he understands that French is yet another foreign language often forced upon our Haudenosaunee ancestors in our own territories. He learns this through our interactions with the outside world and through our many conversations about our family, culture, traditional territories, and why we don't speak *Kanien'kéha* (Mohawk language).

There were many sleepless nights, as I lay awake feeling like a hypocrite for writing an entire book about the advantages of holistic education and advocating for heritage languages and cultures to be supported in schools. My child would receive none of that. Of course, I had no idea I would have a child who was gifted in many ways, did things in his own time, but who would also not by fully supported by public education.

Just before Kindergarten, Skye was diagnosed with Autism Spectrum Disorder (ASD). I was worried about how he would fit in and be treated in a public school with limited resources. Because of his diagnosis, it was recommended that he attend English school to remove at least one major obstacle to his learning. So, my son began his education at a nearby English school in a small integration class for children who are neuro-diverse and "coded" within the school board system. Halfway through the year he made the slow transition to a regular kindergarten classroom. Because my son is academically advanced and "high-functioning," his challenges are often attributed to "bad" behavior and educators overlook his individual needs as well as his talents and gifts. He has been called "scatter brained," a "sly character," and his behavior has been attributed to him being an "only child." He slips through the cracks of an educational system designed to treat all students as

one size fits all. He has been forced to adapt to the school, rather than the school and teachers adapting to his needs.

There has been a shortage of teachers and childcare workers (CCW), who are responsible for providing classroom support for "coded" students. My son had three different childcare workers in grade two who sometimes rotated their time in the classroom. The CCW's are often undertrained, especially in a pandemic when the government hired anyone willing to do the job. It is not the fault of the teachers or CCWs. The system is failing them too. The lack of adequate training for all staff, particularly with students with ASD, has caused all sorts of additional issues for my child. For example, my child is often "put in trouble" as he calls it, by losing recess, made to sit in the quiet corner, or is sent out of the classroom for behavior he has difficulty controlling. Fortunately, he has had caring and patient teachers for the most part. His teachers are not fully supported in the classroom to better meet students' individual needs. Like many, they must abide by a strict provincial curriculum, has additional students with "special needs," and has had to rely on undertrained support staff who resort to handing out punishments instead of taking the time to help guide students like my son in making good choices. Tragically, under pandemic restrictions, the teachers could not even hug my child when he needs it most. Already overworked and underpaid, teachers have been under an exorbitant amount of stress and pressure.

I'm given conflicting information from various school staff that tell me on one hand "He's so bright, a natural leader with lots of friends. There are no serious issues," and the other, "He's so disrespectful, aggressive, refuses to do his work, he hides in his locker. He's been sent to the calming room again." After requesting meetings with the school and insisting on more support, I'm told that he has a great team and that the school is doing better than most, and that my son just needs to work on being more "accountable." This puts the burden on my 9-year-old son to dust himself off, be a big boy, and get along, rather than the school meeting him halfway to address their own accountability. It wasn't until his struggles escalated to the point of knocking over chairs and shoving desks that the school finally sought the expertise of a specialist in ASD. Meanwhile, parents are all expected to "just hang in there because it will get better," and "we are all in this together," even though our children are struggling.

"MOMMA, TODAY WE WERE INDIAN CHIEFS!"

"Momma, today we learned about Moses!"
"Momma, I don't want to learn French!"
"Momma, no one likes me at school."
"Momma, I don't want to go to school."
(Skye, 9 years old)

In addition to the struggles my child faces as a neuro-divergent student, he is also subjected to a deeply colonial system of education that continues to perpetuate western models of pedagogy. The curriculum has little representation of Indigenous peoples, cultures, history, and contemporary realities. So, I continue righting the wrongs of proper cultural misrepresentation and undoing the damage incurred from being subjected to a colonial curriculum that erases Indigenous realities except for once a year on Orange Shirt Day. I will continue to support my son's own ways of learning and to share with his teachers why it's inappropriate to have young children playing the roles of "chiefs" in a school yard game. Approaches to teaching anything about Indigenous peoples, particularly by non-Indigenous educators, are often steeped within misinformed and misguided colonial frameworks filled with ignorance, racism, and stereotypes of Indigenous peoples.

I'm tired of doing damage control when my son Skye comes home from school and tells me he learned about "The Iroquoisee" today and that Indigenous Peoples came across Beringia from Asia. I had hopes that Skye would feel safe in school, that he would thrive, and where he could feel free to express himself and who he is as a young *Onkwehon:we* (The Original People) boy. Then came the week of September 30, Orange Shirt Day and National Day for Truth and Reconciliation here in Canada.

Initially Skye was very excited about having his very own show and tell on September 30 after his teacher invited him to share some of our culture. He sat in a circle on a blanket he brought from home. He wore his tobacco pouch and bear claw necklace, and before him he placed his rattle, a braid of sweetgrass, a bundle of sage, and a turtle shell which he held up as he told the Creation story and of Sky Woman falling onto turtle's back.

It was his idea to bring a picture of his great-grandfather, Mitchell Arionhiawa:kon White, taken in 1909 at Carlisle Indian School. He passed the photo around the circle of classmates and quietly explained that his grandpa went to an Indian Residential School. The teacher had read a couple of books about Indian Residential Schools and many kids were wearing orange shirts that day.

Since the tragic news of children's burials at former schools made the news a few months earlier there was at least some awareness of this history. Seeing all those orange shirts that day brought up a lot of very different and sometimes confusing emotions. I wasn't surprised by any of the news since I was very familiar with this research, yet it was still gut wrenching every time a new story would surface.

I had been doing research for many years on my family's experiences at Carlisle (White, 2017) and more recently have been working on locating burial sites for children who died at Carlisle and the Lincoln Institution in Philadelphia. I have walked through cemeteries looking for children who died, often never to find any indication of what happened to them. My son has walked that path with me (White, 2021a,b,c). He learned at a very young age what those institutions were for and the impacts they have had on Indigenous peoples, including our family. Survival and resilience run in his blood.

I had a hard time holding back tears of pride that day that my son sat as a proud confident young Kanien'kehá:ka boy sharing the stories of his ancestors. I told him how proud I was and reminded him that his great-grandpa, who spent his entire childhood at a residential school, wouldn't have been allowed to share the creation story at Carlisle. When I was his age, I

was made fun of during show-and-tell when I shared my red fringy poncho that my father bought me from the Bears Den Trading Post in Akwesasne. But now, he could feel proud to be Onkwehon:we and reclaim our stories and culture in honor of the children who were punished for sharing theirs. He was filled with pride that day.

That all changed a few days later. I picked Skye up from school the following week and we went to the park as we often do. He pulled some papers out of his bag and showed me his social studies test. My eyes immediately fixed on the word "Iroquois" toward the top.

Question one reads: "Choose the three statements that describe the first inhabitants of North America." The answers to choose from include: "(A) They came from Europe; (B) They were nomads; (C) They were farmers; (D) They came from Asia; (E) They settled in one place; (F) They were hunters."

I saw that my son chose as one of the answers: "(D) They came from Asia," and my heart dropped. I kept reading. The next question asked him to place historic events in the correct order. He had to choose which came first: "The ancestors of Aboriginal people occupied a large part of America" or "The first inhabitants of America crossed the Beringia land bridge." While he chose the former, it was marked as incorrect.

Tears began to well up in my eyes out of heartbreak. He had been seen. And then he wasn't.

DAMAGE CONTROL

I had to do damage control. I talked with him at length about what he was learning. I dug out some books from home by Indigenous authors for younger readers. I explained that our people were always here, from the time Sky Woman fell from the Sky World and landed on Turtle's back. I explained how early explorers were credited for founding north America when our people had always been here. And I told him they were wrong.

Then, I wrote to his teacher explaining how problematic it is that the curriculum presents Indigenous peoples in this way. Telling an Indigenous child that our creation story was wrong, that our people came from Asia across the Bering Strait, which was a theory and not a fact, was confusing and damaging. I told her that I hoped she would work with me to provide Indigenous perspectives to counter these colonial narratives and tackle this systemic problem to make real change and I sent her several resources. I said that she, the school, school board, and the Ministry of Education need to do more than wear Orange Shirts and instead do something real and tangible to address the issues raised by the Truth and Reconciliation Commission.

She responded quite defensively while explaining that she was just doing her job by teaching the required and approved curriculum. Then she added a line that made me realize how ignorant this young teacher was about Indigenous peoples: "They will learn about the creation story from different perspectives over their years of schooling. I am happy to see the resources that you sent in and will share them with the students and the other teachers. Unfortunately, I am still required to teach the material provided to me. Have a good day."

MERCILESS SAVAGES

A few days later my son brought home the social studies workbook. I had only seen the few pages from his test but now I was looking at the entire textbook. It was full of colonial language written by non-Indigenous scholars and educators. The most damaging is the image toward the back of the book captioned: "Missionaries captured, tortured, and killed by the Iroquois" (Cormier, 2021, p. 119). The image was of a historic drawing like those I have used to teach students about harmful stereotypes of Indigenous peoples. Several Indigenous men, supposedly "Iroquois," wearing little clothing, their hair fashioned in the scalp lock that our ancestors wore, wielded hatchets over the heads of black robed missionaries whose hands were bound by rope, while on their knees pleading to the merciless "savages."

I have seen hundreds of these types of damaging images over the years. But this one, and this time, it was my child's eyes and heart that would be subjected to the damaging stereotypical portrayals of his own people. This is not just an abstract notion anymore; this is happening right in front of us. What would that do to his delicate and tender 8-year-old self who was still trying to formulate his own sense of belonging. This hurt. Deeply.

I told my son that when he has a social studies, he could skip it, refuse to take it, and/or answer from his own heart. Even if its marked wrong. He made the conscious choice to cover up the image with sticky notes and warned, "DO NOT LOOK!"

I explained to Skye that we don't call ourselves "Iroquois" because it's derived from Algonquin and French and means "rattle-snake people." He had never heard the term because all he knows is that the Kanien'kehá:ka are part of the Haudenosaunee.

When I asked him how he felt about what he was seeing and reading in his textbook, he responded:

It makes me feel kind of sad to see all this stuff in a book. I want them to change it and tell the stories that the Onkwehon:we told. I don't want to go to school learning these things. It makes me angry because they're going to tell their parents and they'll believe that. And then the people won't believe our stories. They'll be like no, no and argue and argue and it will turn into a big fight. I don't want my friends to see it. They'll think all Onkwehon:we are bad, they'll think, kill all the Onkwehon:we. We're not all bad, we're the first to live on the land. I thought everybody was going to be nice to all Onkwehon:we now and then they'll only believe the book and not believe me.

This young Onkwehon:we boy, living away from family and strong cultural roots already struggles to stand firmly and confidently among non-Indigenous peers. For a moment, he was able to reclaim the land he was standing on as he shared our stories. But then he was made to feel a foreigner in our ancestral territory and in the land, we call home. And that is a tragedy.

How can I defend the choice to send my son to a colonial institution that does a disservice to him on so many levels? It is my job to help him feel empowered by providing our cultural worldview and the emotional capacity to navigate his way through a world that can feel so foreign to him. But I often feel as if I'm swimming against the current.

Indigenous parent and student attitudes about schooling are informed by the history of colonial policies and practices of

genocide, assimilation, eradication of cultures and languages, IRS, erasure of Indigenous peoples in curricula, historical trauma, intergenerational trauma, and affects the ways in which Indigenous peoples approach schooling (Trumbull and Nelson-Barber, 2019). As a result of historical and ongoing traumas, Indigenous peoples have learned the survival strategy of not completely trusting educational institutions. My son Skye's own resistance to the rigidity of a western model of colonial education void of any Indigenous representation and sorely lacking in understanding and embracing neurodiversity, is a testament to his strengths and survival strategies.

My son's school is rich in diverse cultures represented by students from all over the world, but those cultures are rarely represented in a real meaningful way, and when they are it's around a particular holiday, rather than embracing the students own diverse cultures and the ways of knowing embedded within those cultures. This deeply colonial system to learning disregards the identities of students and how their cultures inform who they are and how they come to know. This is damaging to young minds and spirits.

INDIGENOUS WAYS OF KNOWING

There has been a great disruption to Indigenous ways of knowing, a severing of truths about who we are and our purpose, and with that a severing of knowledge to the next generations and ultimately a severing of our power. Colonization is ongoing, not just in land and resources, but over our bodies, minds, and spirits. The worldviews of Indigenous students do not shut off at the door to a school building but permeate all aspects of our lives and to deny or be cut off from our worldviews and cosmologies is to deny our very existence or to deprive Indigenous peoples of the essence of our life force. It is how we come to know and without it, we cease to exist as Indigenous peoples.

In Indigenous cultures, the source of all knowledge is deeply embedded within, it's part of our inner world, and is informed by our collective understanding of who we are as Indigenous peoples birthed from the land and the stars, whose ancestors live in our blood and bone. The answers to life's deepest mysteries lie within us. Our life force, the energy that flows within and between all things can become muddied and dim as we try navigating in a world bent on dividing up our minds, spirits, and bodies and where accessing the source of knowledge though ceremony, songs, and dance, has been outlawed and forbidden, creating shame and confusion. We have forgotten our Original Instructions. But our children and the next seven generations are the ones who will help us all return to living with a good mind and to living in balance, so we may all become whole human beings and whole in our spirits. Haudenosaunee philosophy considers how our actions today will affect seven generations into the future. The world we live in today is to be respected as we "are borrowing it from future generations[6]."

[6]https://www.haudenosauneeconfederacy.com/values/

LEARNING SPIRIT AT THE AKWESASNE FREEDOM SCHOOL

The public education system and its shortcomings can learn from programs like the Akwesasne Freedom School. The AFS and holistic Indigenous education has the potential to transform learning environments for all children. At the AFS, the learning spirit is nurtured through Haudenosaunee teachings of living with *Kan'nikonhrí:io* (Good Mind), which means to move through life with respect, dignity, honor and responsibility and is necessary for becoming fully Kanien'kehá:ka or Onkwehon:we. The learning spirit is enhanced when someone has Kan'nikonhrí:io which is akin to a spiritual power that helps prepare young people for adulthood (White, 2015).

Learning can encompass practices that encourage children to be still and to clear their minds. Battiste calls this idea the "learning spirit" (Battiste, 2013, p. 181) as a method for increasing connections and engaging inner capacities, which in turn enhances learning.

As a model of Indigenous holistic education, the curriculum at the AFS, has a strong foundation in Haudenosaunee worldview, culture, and language. Students learn where they come from, their connection to the universe, and they learn ceremonies, songs, and traditional dances. They practice gratitude to all living things, and they do this through Kanien'kéha. In turn they develop values of respect, responsibility, stewardship of the Earth, and honoring kinship relations. They embody Kan'nikonhrí:io. The *Ohén:ton Karihwatéhkwen* (Words That Come Before All Else) is part of our Original Instructions from Creator and guide us in living with Kan'nikonhrí:io. When we express gratitude for all living things, we acknowledge the life force that connects to all things (White, 2015).

Essentially, AFS facilitates a holistic system of human potential whereby children embody traditional cultural values. There is an exploration and affirmation of identity and community belonging as there is emphasis on the whole person (spiritual, physical, emotional, intellectual). Learning about Haudenosaunee history helps instill a sense of pride and self-confidence and shapes their worldview. And students learn by doing. Like pre-colonization when classrooms were outside, they go out on the land, pick medicines, and learn from Earth's teachers. Intergenerational transmission of teachings comes from elders through means of oral traditions and storytelling, which will guide them throughout their lives. Students grow up to become knowledge bearers and storytellers and continue to pass on cultural teachings to the next generation (White, 2015).

HOLISTIC ASSESSMENTS

The AFS allows for a flexible and creative curriculum as well as evaluation and assessment. Each teacher may take a different approach to assessment, but all emphasize observation, listening, and welcoming both students and parents into the assessment process. Through use of qualitative portfolios that reflect the individuality of each student, parents and students are invited to discuss their progress. Even when report cards are utilized,

parents and student are co-creators. Students at the AFS are evaluated on their ability to speak Kanienke:ha, reading and writing in the language, math, science, language arts, and social studies, as well as participation, attitude, socialization. Science may entail recognizing water animals and Sky Beings, while following instructions can be reflected in language arts. Social studies might focus on showing respect for others. Getting along with others is an important socialization skill that is also part of the assessment process. Language arts are assessed as children learn traditional stories. Because it shows socialization development, community activities outside of the school like ceremonies, are also considered part of a child's learning, and growth potential and can become part of their educational assessment. The line between school and community is blurred because there is a sense of cultural continuity and therefore a child's learning world is much more than what takes place inside of the school walls (White, 2015). There is a high level of trust from parent to teacher at the AFS because Akwesasne is a small community and teachers are known outside of the classroom. Sometimes they are aunties or cousins and all share similar ideologies about Kanien'kéha and the importance of transmitting language and culture to younger generations.

How success is measured is dependent on colonial values of material possessions, wealth, and prestige, disregarding Indigenous cultural values like caring for others. At the AFS, children learn to become good parents: "She learned how to be a good parent at the AFS. . .she's an excellent mother" (White, 2015, p. 102).

There are many models of Indigenous approaches to education, learning, and assessment that are inquiry based, focus on children's natural sense of curiosity, employ sacred circle teachings, and respond to the TRC Calls to Action (Anderson et al., 2017; Katz, 2018; Toulouse, 2018). Additionally, scholars Barnhardt and Kawagley (2005) provide numerous examples of Indigenous epistemologies embedded in education programs. Cajete (1994) focuses on Indigenous Knowledge's and western science development in curriculum. Trumbull and Nelson-Barber (2019) offer a literature review of models of culturally responsive assessment practices in the U.S. Don Trent Jacobs and Jacobs-Spencer (2001) offers a character education guide rooted in Indigenous perspectives that help educators integrate core universal virtues like courage, fortitude, patience, generosity and humility across the curriculum. Developing good character does not mean adherence to any one religion or political affiliation. We can hopefully all agree that we want our children to be kind and compassionate human beings.

In his text "Teaching Truly: A Curriculum to Indigenize Mainstream Education," (Jacobs et al., 2013). Jacobs offers practical tools for K-16 classrooms in core subject areas with a foundation in Indigenous perspectives and ways of knowing. This foundation in holistic Indigenous education helps equip teachers with an understanding of our connections to all things and our place in the universe so they may begin to focus on relationality in their approaches rather than compartmentalizing knowledge. In addressing the structural inequality in the education system and looking to Indigenous guidance, the field of teaching can be liberated as educators guide our young people to become independent thinkers living more consciously in the balance with the world. As we think about the purpose of education, we must think beyond one way of knowing, one knowledge, or one truth.

Holistic assessments are personalized rather than a one size fits all approach. Laughlin (n.d.) provides a model based on Indigenous holistic education in which assessments consider multiple perspectives and multiple places of learning. Perspectives of the students, parents, community members, and even librarians are considered along with the teacher's assessment. Holistic assessment considers that children learn wherever they are and there is cultural continuity between home and school and community, creating multiple places of learning. In such a child centered way of assessment, the parents and students are empowered as they take charge of their own learning (Stonechild and McGowen, 2009).

As an educator, I often struggle within the confines of a colonial institution and the mandated grading system of academia, opting to offer my student's alternative curricula and assignments that embrace creativity, and experiential learning options that create opportunities for sense making in their projects. For example, they may choose to be of service to an Indigenous homeless organization by gathering personal hygiene supplies, researching the topic of Indigenous urban populations, and working together with a group, all provide a meaningful learning environment. When they later create a portfolio reflecting on their experience and present it in a creative way through story, art or video, they embrace these projects with more enthusiasm and have a richer learning experience. They practice leadership skills when they lead discussions with their peers and provide peer evaluations to give each other feedback in their writing processes.

INDIGENOUS HOLISTIC EDUCATION

Indigenous holistic education has many models based on the Medicine Wheel and basic understandings of the self, or the whole human being who has mental, physical, spiritual, and emotional components. Adapted from the AFS model (White, 2015), I offer a modified example of Indigenous holistic education here (**Figure 1**).

MENTAL

Children thrive when they are encouraged to think not only critically but creatively as well. Rather than having students create generic totems, schools could encourage deeper inquiry into the lives and cultures of Indigenous peoples, beginning with the land they occupy. As mentioned previously, an acknowledgment of the traditional land is a good place to start these conversations.

Rather than colonial retellings of history such as the Bering Strait Theory and making Onkwehon:we children believe we are merciless savages, children can learn about the complex history of Indigenous peoples and contemporary realities from Indigenous authors, elders, and guests who share cultural teachings. Some school boards in Quebec employ "spiritual animators" who come

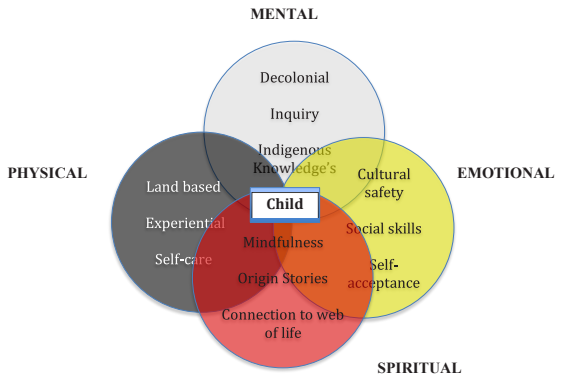

FIGURE 1 | Indigenous holistic education (White, 2015).

to various schools to talk about Orange Shirt Day. However, most, if not all of them are not Indigenous. When schools, boards, provincial government bodies talk of reconciliation, it needs to be backed by decolonial efforts in putting Indigenous voices at the forefront. Hire Indigenous "spiritual animators" to come to schools on Orange Shirt Day and extend the curriculum on Indigenous content to go well beyond one day in September. My son had the wonderful idea to have Tom Longboat Day[7] in addition to Terry Fox[8] day.

We read books on Indigenous hero's including Tom Longboat at home. We talk about the spirits of the deceased bugs my son collects as he buries them with a tobacco offering and a prayer. Skye is very inquisitive about science, especially the cosmos. We talk of the stars, the universe, and the Sky World which is the place of our creation. When he goes to school, however, these teachings are contradictory to the lens of western science that his school adheres to.

In Indigenous holistic education, western science is complimentary rather than superior to Indigenous knowledge's, which encourages cultural continuity between school and home. To help in that continuity, I send books on Indigenous heroes for his teacher to read, and more books on our creation story. But it would sure be nice if there was knowledge, respect, and resources for embracing Indigenous knowledges beyond his classroom. Books are a great way to open conversations but field trips to our nearby reserve communities to have medicine walks with elders, would go a long way in supporting Indigenous knowledges and invoking respectful curiosity among students.

PHYSICAL

We already know students learn best by doing. Experiential education focuses on the "doing." Children thrive when they spend more time outside during their school days, exploring and learning from the land and Indigenous perspectives. Walking outside around the school could evoke lessons in learning about the traditional territory of the land the school sits upon. Students could learn about the plants and trees that grow in a nearby park by observing, drawing pictures, identifying parts of the plants, learning traditional Indigenous uses such as for medicine.

Modeling various means of moving our bodies promotes self-care. Children could greatly benefit from mindfulness practices like breathing, yoga, and somatic experiencing in which a connection is made between emotions, the nervous system, and the physical body.

Skye could learn more about how he experiences sensory overload and instead of kicking a chair or yelling when the classroom gets too loud, he could be reminded to wear his noise canceling headphones. He could be taught deep breathing and how to feel his breathe moving through his body until he feels calm. Skye told me he learns math best with his body. He explained that when he moves his body in the shapes of numbers, counts using his limbs and fingers, and moves around with classmates to add or subtract, he understands better. I told him this is a wonderful alternative to sitting at a desk with paper and pencil and suggested he tell his teacher about his idea.

SPIRITUAL

When children learn about the cosmos, origin stories, and the great mysteries of life from Indigenous perspectives and they are internalized, "this identity relates to the larger web of life" (Jacobs and Jacobs-Spencer, 2001, p. vii). In a holistic model, children are encouraged to connect with themselves, can see themselves in their community, and learn to be of service to others, while appreciating the diversity of life. Furthermore, mindfulness practices that are trauma informed to respect the histories of genocide, oppression and ongoing realities could enrich a child's spiritual development.

What if my son's school embraced mindfulness practices like meditation and encouraged children to talk openly about topics like Indigenous creation stories that extend beyond reading a book but allow discussion surrounding the life's great mysteries. Skye knows our Creation Story well. He also likes to tell his friends that his Momma has seen "ghosts" because that is the language that his friends understand. He is referring to ceremonial experiences that I have shared with him in which I witnessed "spirit lights." I embrace talking to him about topics like death and what comes after, so he knows he's never alone because our ancestors are always with us. How beautiful it would be if school were a safe space for him to speak openly about these topics.

EMOTIONAL

Holistic education intentionally develops social and emotional skills throughout the education journey, rather than as a byproduct. Emotional development is nurtured when creating cultural safety for Indigenous children to feel safe and in which their voices are listened to without judgment. This guides them making friendships and connections to others.

There have been times when educators at my son's school have outright asked him things like "what's it like to be Indigenous?"

[7]See the children's book: MacLeod, E. (2019). *Meet Tom Longboat.* Scholastic Canada.

[8]See The Terry Fox Foundation: https://terryfox.org/

which only serves to put an uncomfortable spotlight on him with such a broad question for a child. Creating an environment where Skye could speak about what it means to him to be Indigenous when and how he chooses, without pressure or judgment, can help him feel a sense of cultural safety (Cote-Meek, 2020) in which he can feel a sense of self-acceptance as he experiences outward acceptance. Reading age-appropriate books by Indigenous authors can help open conversations about the unique and diverse cultures of Indigenous peoples. Allowing Indigenous children to speak about their personal lives and families when and how they feel comfortable, helps create a safer space for those children to feel seen and listened to. If education allowed children to learn from an inner space of peace and acceptance of self, to play and learn in their natural states of being, the whole child is nurtured.

DECOLONIALISM

Marie Battiste says, "Every school is a site of reproduction or a site of change" (Battiste, 2013, p. 175). Do schools continue causing harms to Indigenous children or can educators take responsibility for understanding how education systems have harmed Indigenous peoples through failed assimilation policies and challenge unbalanced systems of power creating liberation for all?

When young people feel heard and respected, have freedom to explore, have space to grow, and who see themselves in who and what they are learning about, they can be equipped to go on to do great things in their lives busting out of the social hierarchy, empowered to become agents of social change.

The AFS is an effort in decolonization[9] where the balance of power between repressive modes of education and Indigenous peoples has shifted. Mohawk youth thrive in a system once used to subjugate and control previous generations. When students learn their own history and culture, they feel empowered, and their self-confidence grows enabling them to have a secure future. Why can't public schools adopt similar models?

We need education systems and teachers who embody the values of mutual respect, relationships, connection, and who understand the importance of identifying and nurturing each child's unique gifts. We need those systems to support teachers and provide opportunities to engage in the practice of decolonizing education. Teacher education programs need to go beyond the abstract theoretical models of decolonialism and allow for the intentional embodiment and practice of what that looks like on an individual level within the classroom. Teachers need space and support to do this work and to provide "practices consistent with norms in Indigenous communities that provide space for students to assess their own progress and allow alternative ways of demonstrating knowledge and skills" (Kanu, 2011, p. 113). Children like Skye should not have to choose between their cultural teachings and that of opposing western frameworks that continue to press agendas detrimental to Indigenous people's existence.

[9]For additional information and examples of decolonization, see Smith, L. (1999). *Decolonizing methodologies: Research and Indigenous Peoples*. Zed Books.

As reform is necessary in both Indigenous and non-Indigenous educational institutions, the AFS reminds us how culturally relevant curricula including assessment practices can have "far reaching influence on young people in a global society that increasingly emphasizes individuality, competition, and material gain" (White, 2015, p. 175). When schooling is made meaningful and involves real parent and student input, when students are engaged through experiential methods, education can "better serve diverse student bodies" (p. 176). Non-Indigenous educators and institutions serving non-Indigenous students can benefit from the inclusion of Indigenous perspectives and epistemologies through raising awareness of Indigenous people's history and contemporary realities, while enhancing a better understanding of the increasing cultural and learning diversity of student bodies. All children can develop Kan'nikonhrí:io.

RECONCILIATION

Educators and parents must ask: What is the meaning of education? Do we want to prepare our children for gaining material wealth as a measure of success? Or do we want to create systems that encourage young people to explore their unique gifts and talents, that help them tap into an inner knowing to guide them through their lives, to point them toward a trajectory of living freely, reaching their potential and contributing to a world where diversity in cultures and learning is respected?

For true reconciliation to move forward, settler society including educators must have difficult and uncomfortable conversations about colonization and institutional roles in the suppression of Indigeneity. Teachers must ask themselves what their role is in reconciliation and take responsibility in the classroom (Katz, 2018). They must question their own power and privilege by delving deeper into understanding whose lands do they stand upon. They must ask how they have personally benefited from the exploits of colonization. It would be beneficial to begin such inquiries with some self-reflection about their own histories and family legacies. For genuine and lasting change to occur, the work first must come from within individuals.

One positive step toward true reconciliation would come if local schools and school boards thoughtfully and respectfully created appropriate Territorial Acknowledgments. Indigenous students could feel a greater sense of visibility and belonging. Entire curricula can be framed around Territorial Acknowledgments beginning with lessons exploring whose land the school sits upon. A continuation could have students identify the traditional territories where they live and inquiring about what happened to the Indigenous peoples from that land. This might invoke questions like: where are they now? What language did/do they speak? What do you know about them? What more can we learn? A Territorial Acknowledgment opens endless possibilities for conversations about Indigenous Peoples. In fact, our local school board, the English Montreal School Board consulted with me about forming their own land acknowledgment. I helped draft

Concordia University's Territorial Acknowledgment and they thought I could help. In our discussions it was apparent they were merely interested in copying existing language so they could check off a box. Their progress has been slow, and I have not witnessed any substantial effort to do the front work necessary to birth their own meaningful land acknowledgment. I have also informed them of the problematic social studies textbook that has been forced upon my child with little response.

Schooling is often conflated with education with the former associated with institutions with rigid structures amidst the confines of four walls, where individualism and conformity ensure the production of citizens whose consumption contributes to a global economy based on greed and material wealth. The heart, love, and values like compassion are mostly neglected. Education on the other hand is lifelong and takes place anywhere. Holistic Indigenous education and alternative forms of education focus on nature and involve the greater community.

Imagine a reconciliatory approach to welcoming the diversity of student whole selves into a learning environment to usher in the next generation of change makers. Imagine if, rather than compartmentalization of mind, body, spirit into distinct physical locations like school, church, sports, home, community, there was integration into a holistic, reciprocal, and relational approach to education and where content is diverse in format and delivery. Imagine if educators were able to slow down, form authentic relationships with their students; know their life stories, backgrounds, and unique ways of knowing. If education was more humanized and teachers felt freedom to explore alternative methods of teaching and assessing their student's knowledge and understanding with flexible outcomes driven by learner inquiry, then everyone benefits. Imagine a space where there is mutual understanding, a coming together for the benefit of all while recognizing that we are all related and where children rise with Kan'nikonhrí:io. It was disheartening to receive the response from my son's teacher. Imagine if parents and teachers formed alliances to find the best strategies to help struggling children rather than proceeding as if we are on opposite teams.

None of these suggestions mean filling the void with generic Indigenous curriculum filled with stereotypes and non-Indigenous perspectives. Either Indigenous peoples are erased completely from curricula or are presented in such ways that render our present-day existence obsolete. It takes real commitment toward positive change. Imagine if the Ministry of Education engaged in meaningful consultation with Indigenous educators when developing textbooks and focused on our current realities rather than placing us in a solely historical context? Imagine if Skye created his own learning modules about our ancestors and current lives by speaking with elders, reading books written by Indigenous authors, creating a replica of a historic longhouse and then visiting a modern one. Imagine if his school made a respectful thoughtful request to invite a Haudenosaunee elder to his classroom to share our Creation Story. He would feel seen. He would feel understood and the gap between home and school would lessen. Holistic education models can achieve such imaginings.

IMAGINING THE NEXT SEVEN GENERATIONS

The problems in our education system are not the fault of any one teacher, principal, or school board. States and provincial governments mandate outdated curriculum, force educators to "teach to the test," while expecting teachers to move mountains with their students. The fault is systemic. The current system of public education continues to fail Indigenous children, particularly those with special needs. Society needs to do better at prioritizing our children and ensuring our leaders do the same.

It can feel impossible to dream when we are constantly faced with seemingly insurmountable obstacles and reacting to continual crises. We all need to think about what kind of future we wish for our children and for the next seven generations? It cannot be left up to Indigenous peoples alone to bear. Do we want to make fear driven decisions and perpetuate more anxiety in our children, while encouraging domination over species, nature, and Indigenous cultures? Our children deserve safety in mind, body, and spirit. Indigenous ways knowing can help bring us all back to who we truly are, to help us all remember our origins as spiritual beings who can live more consciously. When children can bring their whole selves to their learning experience, including their spirits, while connecting the larger community, they can feel motivated for self-discovery through their lifelong adventure in learning, and they can be uplifted as they grow to be whole human beings with Kan'nikonhrí:io and kind hearts.

I can imagine such things for my son. I imagine his innate curiosity as a driving force for learning as he comes to understand his inner world and how his spirit, mind, and body come together as one. I imagine him thriving in an educational program where teachers take the time to understand his needs and gifts and support him along the way. According to Altogether Autism Takiwâtanga, the Maori of New Zealand have a term for Autism, "*Takiwâtanga*" which means: "my/his/her own time and space" which considers that "people with autism tend to have their own timing, spacing, pacing and life-rhythm[10]." I imagine him seeing Indigenous peoples not only represented in the curriculum in a meaningful way but also having elders pass on teachings through oral tradition. I imagine him growing into his own inner space of stillness as he learns to listen to his own heart and spirit. I imagine him becoming Fully Human and transmitting these teachings to the next seven generations. I imagine him continuing to embody Kan'nikonhrí:io.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

[10]https://www.altogetherautism.org.nz/a-time-and-space-for-takiwatanga/

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Okiskinwahamâkew: Reflecting on teaching, learning and assessment

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This paper looks at assessment views held by Alberta Education in regards to teaching and learning for educators in Alberta. The standardization model of teaching and assessment excludes Indigenous thought systems articulated through rigorous thought processes in the nehiyaw mâmitoneyihcikan – the Cree mind and intelligences. Infusion, integration, indigenization models that privilege the dominant educational design continue to perpetuate an invisible colliding space that impacts the Indigenous thinker and learner. Privileging Indigenous language thought systems that are rich in multidimensional processes are presented to address current notions of teaching and assessment. Looking through the lens of the Indigenous language system and addressing the politics of literacy uncovers nehiyaw mâmitoneyihcikan – the Cree mind. This rich thought system reveals a sophisticated system that operates omni and multidimensionally from and within a compassionate mind – a value based way of seeing and engaging. Honoring nehiyaw thought systems, processes of coming to know and respecting Indigenous understandings of teaching and learning, lead to considering the rigorous nehiyaw understanding of okiskinwahamâkew – Indigenous informed teaching guide.

KEYWORDS

Indigenous education, Indigenous knowledge thought, okiskinwahamâkewin, nehiyaw thought systems, Indigenous pedagogy, Indigenous assessment

Tansi! Hello! I was raised in my First Nation community of Oniskwapowina (Saddle Lake Cree Nation #125, located in Treaty 6 Territory in Northeastern Alberta, Canada). I am the middle child of five siblings, who include three sisters and one brother. I am also the mother of a daughter and a son. My parents are Genevieve and the late Walter Steinhauer. My maternal grandparents are Madeline and Maurice Quinn, and my paternal grandparents are Sarah and August Steinhauer, formerly the Chief of Oniskwapowina. On my mother's side, I am a direct descendant of Chief Papastew, a leader of the Papaschase Indian Band #136 in the territory now known as Alberta, and, on my father's side, of Henry B. Steinhauer, an early educator in our territory.

I want to honor Kise Manitou (Great Spirit), our spiritual ancestors, my ancestors, nitsanak and my descendants, and ask for their support. Our courageous spiritual ancestors and the great leaders in my lineage gifted me the living blood and memory

that inform and guide my walk as a human being. With deep and heartfelt gratitude and humility, I thank them.

Assessment in teaching and learning

Any discussion of assessment in teaching and learning takes me back to my early years as an educator, working as an elementary and junior high school teacher in Oniskwapowina. I recall feeling tremendous pressure and tension when I prepared my students' report cards. As required by the standards that guide and direct our practice, I had to assign each student, as a measure of their ability and skill, a numeric grade. This was the most unrewarding aspect of my teaching career. I understood the need for results and reporting, but I also questioned how the end result of an assessment process that should take into consideration all of a student's being was something as slight as a number – and one that wordlessly told my students their worth. This practice undermined my hope for learners, particularly those who failed.

Assessment is a requirement that educators must constantly negotiate. In current pedagogical approaches, assessment practices create a game in which students gradually learn to become outcome-based thinkers, needing to see the rubric so that they can be successful or, at minimum, "good enough" students. In spite of always feeling uncomfortable assigning percentage scores to students and knowing that any number attached to my students' grades would not accurately reflect their abilities and skills, I still felt forced to create assessment tools that produced percentage scores.

I remain concerned about the poor fit between assessment and standardization and my students and their learning. Reflecting on Nêhiyaw (Cree) knowledge that has been shared with me and on my own teaching experiences, I want to invite other educators to reconsider assessment. Rather than present a "how to" guide for student assessments, I will share some of the ways in which I, as an Indigenous person and educator, look at and think about assessment.

As noted earlier, my first experiences as an educator were in Alberta's K-12 system. I am now a professor in the University of Alberta's Faculty of Education, where I focus on preparing teacher candidates to work with Indigenous students. My starting place for our reconsideration of assessment is the section on that topic included in the provincial government's *Guide to Education: ECS to Grade 12* (Alberta Education, 2020a).

The guide describes the assessment of individual students' level of achievement as "essential for planning learning activities to meet the student's learning needs." Ideally, assessment should be useful to both students and their teachers. It should be an ongoing process, embedded in instruction, and students should have a clear understanding of what they will be assessed on. Other characteristics of "useful" classroom assessment include a "focus on a broad range of outcomes, reflecting multiple dimensions of competency development" and "on what a student can do, clearly identifying both strengths and areas of difficulty." It uses measures that are "appropriate to the student's development and cultural background," and "involve[s] students in their own assessment . . . giv[ing] them responsibility for their own learning and foster[ing] lifelong learning" (Alberta Education, 2020a, p. 103).

As an Indigenous educator, I appreciate the aspirational tone of this description of assessment, that it acknowledges that students learn in many different ways and that their culturally distinct identities should be taken into consideration in the assessment process. At the same time, I know that, in Alberta (and throughout Canada), within the Indigenous population, high school completion rates are significantly lower than they are within the non-Indigenous population (Indigenous Services Canada, 2020). This tells me that, in Alberta (and Canada), mainstream or western education systems are not meeting the "learning needs" of many Indigenous students.

I am not alone in this recognition. In Alberta and elsewhere in Canada, many educators have acknowledged the historic and present-day impacts on Indigenous children, families and communities of the settlement and colonization of Canada and, in particular, the Canadian Indian [*sic*] Residential School system.[1] Many K-12 schools and post-secondary institutions have started initiatives that focus on reconciliation Alberta Education (2020b) has defined reconciliation as "the process and goal of creating societal change through a fundamental shift in thinking and attitudes, increasing intercultural understanding to build a better society through learning about First Nations, Métis and Inuit perspectives and experiences, including residential schools and treaties" (p. 2). As I understand it, reconciliation must include taking action to support the reestablishment of relationships between Indigenous and non-Indigenous individuals, organizations and governments and ensuring that mutual empowerment, respect, and accountability are centered in those relationships. The University of Alberta (2021), where I teach, has presented decolonization ("deconstruct[ing] colonial ideologies of the superiority and privilege of Western thought and approaches") and Indigenization ["a collaborative process of naturalizing Indigenous intent, interactions, and processes and making

1 The Indian [*sic*] Residential School (IRS) system was established and funded by the Canadian government. Between the late 1800s and 1996, over 150,000 Indigenous children were removed from their families and communities, and forced to attend church-run schools that, for some, were hundreds of kilometers from their homes. In 2007, as part of a class-action settlement for survivors of the IRS, the Truth and Reconciliation Commission (TRC), charged with gathering the stories and experiences of survivors, was established. The TRC's reports and other IRS-related resources can be downloaded from the website of the National Centre for Truth and Reconciliation (https://nctr.ca/records/reports/).

them evident to transform spaces, places, and hearts") as first step in reconciliation process. The university has also developed a range of supports for faculty seeking to decolonize and Indigenize their curriculum and practice. At a provincial level, Alberta's ministry of education has revised the list of competencies comprising its standards of practice both for teachers and principals and for other leaders in the K-12 system to include the expectation that they support the development and application of "foundational knowledge about First Nations, Métis and Inuit for the benefit of all students" (Alberta Education, 2020b, p. 4). The ministry also provides indicators that can be used to gauge whether a teacher or leader has "achieved" this competency. These refer primarily to school leaders, teachers or their students developing a more informed understanding of Indigenous peoples' historic and present-day political and social contexts, experiences, and perspectives but each also include an indicator that refers to supporting First Nations, Métis, and Inuit student achievement.

I appreciate the efforts to create change described above and in other similar Indigenous education initiatives and, at the same time, recognize there are some significant pieces missing. For example, Alberta Education's standards place considerable emphasis on learning *about* Indigenous peoples but do not actually refer to learning *with* or *from* First Nations, Métis, or Inuit peoples. I also know that mainstream education systems are frequently sites where Western and Indigenous ideologies collide. This is the elephant in the room. Unacknowledged and ignored, it creates an impasse, one in which the integrity of Indigenous ways of teaching, learning, and knowing will continue to be undermined, in which educators will be able only to scratch the surface of the changes that are needed, and in which the infamous gap between educational outcomes for Indigenous and non-Indigenous peoples in Canada almost certainly will not be resolved.

We are at a juncture where can no longer simply tweak or twist existing practices. In Canada, we have more than 150 years of proof that colonial or Western approaches to education (ranging from Indian [*sic*] residential schools through present-day mainstream education systems) do not meet the learning needs of many Indigenous students. In the context of the commitments to Indigenous education made by the Alberta government and by many other educational institutions and stakeholders, there is no better time to acknowledge some truths about the space of mainstream education.

The anarchic, colliding space of mainstream education

The term anarchy describes "a state of lawlessness" or the "absence or denial of any authority or established order."[2] It also describes the critical and practical reality of experiences that many Indigenous students have had in mainstream education systems, sites where the authority of Nêhiyaw montinecikan (Cree ways of thinking) and Indigenous knowledge systems are denied.

For example, my cousin, Dr. Evelyn Steinhauer, Director of the Aboriginal Teacher Education Program at the University of Alberta related that, in a ATEP physical education curriculum class offered to preservice teachers in an Indigenous community, the instructor required participants to somersault. Somersaulting or flipping, however, would be a violation of the traditional cultural practices and conduct of some of the women in the class. They refused to complete that component of the lesson and, as a result, were failed.

A good friend of mine, the late Elder and scholar Karen Rabbitskin, shared another example with me. In one of her university science classes, she had been required to dissect a frog. Karen had a deep understanding of the natural laws of balance and harmony, and the consequences that may follow from any disruption of that balance. To dissect a frog is to harm a spirit entity, which breaches Nêhiyaw (Cree) laws. Rather than do this, she also accepted a failing grade.

My daughter has also had experiences at school in which the authority of Nêhiyaw montinecikan was denied. One weekend, when she was a junior high student, she said, grinning, "Mom, my teacher thinks rocks are non-living." In our culture and worldview, rocks are recognized as important living entities, so I responded, "Oh really?" In that moment, she was amused by the science teacher's assertion, but the following Monday, when I picked her up after school, she was very upset. She related that, as an exercise in her science class, students had been given actual items to sort into "living" and "non-living" categories. When she placed a rock in the living category, her teacher came to correct her and abruptly moved it back to the non-living category. When the teacher walked away, my daughter returned it to the living category. This further annoyed her teacher, who "corrected" her a second time. In the final order and against her teacher's insistence, my daughter again placed the rock in the living category. She was very hurt by this experience. "How can the teacher think that?" she asked me. "That is who I am. That rock is me. It's in my name. She is denying who I am." I wanted my daughter to find a way to claim her space. I told her that, if and when she felt ready, she could talk about this experience with her teacher. By the end of that week, this had happened. I know that my daughter took great risk in doing this, and, looking back, had more courage than I might have had in my own junior high school days.

Each of the examples above describes an instance in which an Indigenous student's action was guided by

2 *Merriam-Webster.com Dictionary*, s.v. "anarchy", accessed October 12, 2021, https://www.merriam-webster.com/dictionary/anarchy.

their own culturally distinct knowledge, and by their understanding of and respect for fundamental natural laws. In the context of the mainstream education system, their knowledge was dismissed, and their adherence to ethics that follow from natural laws was penalized. For these and other Indigenous students, their classroom became an anarchic space and the site of cultural violence. We need to be truthful. In education systems structured to conform to western education standards, our orientations in teaching and learning are informed by colonial logics and dominance. It is critical that we understand and acknowledge this.

Assessment – Looking into meaning and Nêhiyaw thought

In my graduate courses, my late Uncle Lionel Kinunwa observed that Indigenous words and phrases contain and carry conditions, instructions, and concepts. When they are translated into English, their meaning is lost. There seem to be no rules in the meaning of English words. For example, "Indian" is used as a catch-all term to describe any or all Indigenous peoples in the Americas, obscuring the diverse cultures, languages, and ways of being of the many distinct groups that make up this population. This usage was coined by early European explorers, who, when they ran into islands off the Americas, thought they were about to reach India, their planned destination.

The colonial roots of the term are also revealed in the Canadian government's use and definition of the term in the Indian Act, R.S.C. c. I-5 (1985).[3] The Indian Act (passed in 1876 and amended several times since then) was developed to enable the federal government to regulate the daily lives of First Nations people. The Act acknowledges the historical and constitutional relationship between Canada and the Indigenous peoples whose traditional territories it now occupies and lays out some of the unique responsibilities and obligations Canada has within that relationship. It defines an "Indian" as someone who is "registered as an Indian or is entitled to be registered as an Indian" by the federal government, empowering the government to decide, in a legal sense, who was or was not fully recognized as a First Nation person (Hanson and Crey, 2009). Uncle Lionel Kinunwa warned us not to define or describe ourselves as "Indian" because it is an identity that was assigned to us, and one that anybody can assume. It is not an identity we gave ourselves. We are Nêhiyaw (Cree people), a word we were gifted that precisely describes our identity and our connection to a large and sophisticated thought system.

3 R.S.C. 1985, c. I-5.

As noted earlier, Alberta Education, in its discussion of student assessment, refers to "multiple dimensions of competency development," teaching to a student's "cultural background," and "lifelong learning" (2020a, 103). What do these terms mean? Their use in this context suggests that, in Alberta's publicly funded classrooms, Indigenous students' knowledge and ways of thinking, learning, and knowing will be respected, welcomed, and valued. This was not the case for the students whose stories were shared above – but what might have happened if those students' Nêhiyaw montinecikan (Cree ways of thinking) had been honored?

As a Nêhiyaw educator, the appearance of these aspirational terms in a discussion of assessment feels somewhat encouraging or promising. At the same time, I know that it can be challenging for an educator to teach to a student's "cultural background" if that student's cultural background is different than their own and unfamiliar to them. In these conditions, an educator may fall back on cultural assumptions and stereotypes that can make the process more harmful than helpful to students. In Canada, a settler colonial state where many non-Indigenous people have remained socially and spatially isolated from Indigenous people, cultural assumptions and stereotypes about Indigenous people often take the form of what Francis (1992) named "the Imaginary Indian," a construction that can be anything that non-Indigenous people want or need Indigenous people to be, and one that is "bound up with myth, prejudice and ideology" (p. 6). This leaves little or no room for cultural knowing or reality and dislocates and displaces Indigenous peoples' multidimensional and sophisticated knowledge systems to fit comfortably with and conform to western and mainstream standards and constructs.

My intent is not to critique the good intentions of any educator or of Alberta Education, but rather to extend and broaden how we think about and how we conduct assessments. My many Indigenous mentors have taught me that when a Nêhiyaw thought is taken and filtered through a Western lens and thought pattern, it is no longer Indigenous. It becomes western with an Indigenous spin, the conceptual equivalent of a magician's *hide the bean under one of many covers* trick, moving things around, repositioning or "playing" with a thought system as though that process could create an Indigenous idea. It doesn't.

A colleague once asked me to identify and create a list of ten behaviors of Indigenous students. The list, they explained, would be circulated to provincial educators to help them more effectively manage their classrooms. Of course, I declined. Similarly, many "how to make something Indigenous" are now floating around in the world of education, designed as guides to 'infusing,' 'decolonizing,' 'Indigenizing' or the silver bullet that will resolve the Indian problem. These finite vision of how we

can bridge the gap and generously bring Indigenous learners to where they 'need' to be is problematic. I think a better starting place for any effort to create change is to look at Indigenous thought.

Nêhiyaw mâmitoneyihcikan – The Cree mind

Anishinabe Elder Jim Dumont (2005, p. 3) describes six concepts that are fundamental in the consciousness and thought orientation of the Indigenous thinker. These include

1. "Indigenous centeredness" (to be centered in an Indigenous worldview, perspective, and way of life),
2. "Indigenous consciousness" (to be conscious and aware of Indigenous thought, knowledge, and ways of being in all that you see, feel, know and do),
3. "Indigenous capacity for total responsiveness" (to function from the multiple levels of being – the heart, spirit, mind, and body),
4. "responsiveness and connectedness to the collective whole" (to recognize that the most valuable knowledge, creations, or achievements are those that benefit us collectively),
5. "responsiveness and connectedness to the total environment" (to be personally responsible and accountable in our relationship to the environment), and
6. "Indigenous value-based seeing, relating, knowing and doing" (to be guided by the values of "kindness, honesty, sharing, strength, respect, wisdom and harmony" in our thoughts and actions).

This responsive connection between our mind and our physical body, spirit, and heart informs our expression of language and enables us to intelligently articulate our thoughts. Ermine (1995) described this as mamatowisowin, a sophisticated, complex and an undefinable intelligent space, linking our interiority to dimensional capacities far beyond our human knowing. Our "inwardness" and our faculties are continually engaged in rigorous, multi-realmed, multi-dimensional, multi-spatial and timeless processes (Kawagley, 1995; Cajete, 2000; Little Bear, 2000; Meyer, 2003; Steinhauer, 2008). An awareness of and respect for the spirit inside each person means that an individual's mind or thought processes cannot easily be minimized or dismissed as subjective or unproven. In western contexts or mainstream education systems, Indigenous knowledge, ideas, and pedagogy are often described as part of "oral tradition" or "oral history." As my Nêhiyaw knowledge mentors have helped me understand, Nêhiyaw mâmitoneyihcikan (Cree mind) and ekwa Nêhiyawêwin (Cree language and thought system) involve larger portals of expression.

Politics of literacy – Issues of written word

In her work on Cree orality, Weber-Pillwax (2001) identified the effects of the "politics of literacy" on orality-based cultures and societies. Nêhiyaw knowledge holders and mentors have shared with me their discomfort with the absence of any reference to spirituality in most formal definitions or discussion of terms such as oral tradition, oral history, and orality. In a recent conversation, knowledge holder Ralph Morin explained to me that it is inappropriate to designate the Cree language, Nehiyawewin, as part of an oral culture, oral tradition, or oral history because those designations place it outside of our knowledge systems into a western frame that collapses knowing into the static and confining form of text.

As Aluli-Meyer (2013) observed, written text cannot replace the rich experiential context of what we learn in our interactions with each other. Similarly, Webster (2006), commenting on a story in which the Tewa people had forbidden the recording of a ceremonial chant, noted that "Written Arizona Tewa must be mediated from its situated, context-dependent usage to a reporting of that usage in order for it to be inscribed. In a way, it must already be decontextualized (detached) and artifacted in order for it to be written down. This is a literacy distinct from Western conventions" (p. 304). For Battiste (2002), disregarding the ideological collision between Indigenous consciousness and thought and English discourse patterns and, instead, forcing Indigenous thinkers to assimilate and conform to "Western conventions" is a form of cognitive imperialism.

Dickinson suggested that rather than "(re)producing imperialist patriarchal discourse" (1994, p.331) when Indigenous people speak, non-Indigenous people should practice responsive listening. This requires a willingness to listen and attend to the Indigenous speaker's meaning and intention, rather than impose their own.

Thought and context: Frozen into two dimensional spaces

When discussing teachings on oral understandings, the knowledge holder Ralph Morin shared that an older relative had pointed out to him that a picture freezes a moment or experience into two dimensions, with a specific form and time. Ralph explained that a similar process occurs when Nêhiyaw words are translated into English. The multi-layered meanings and spirit of the Nêhiyaw word collapse. Decontextualized, the word's meaning becomes only what can be understood and articulated in the limited vocabulary and meaning making of the English language. This is especially evident in Nêhiyaw humor. Our humorous stories cannot be retold in English because the nuanced, complex meanings and context of our words are not

translatable. Similarly, as Weber-Pillwax (2001) reminded us, the Nêhiyaw terms used to talk about what, in English, would be described as ceremonial or spiritual practices or teachings, are, in translation, ascribed meanings that significantly differ from meanings ascribed by Cree people.

Many of the historic and present-day efforts to preserve Indigenous languages include the development of dictionaries and other written documentation of specific languages and dialects. As Webster (2006) pointed out, this, ironically, may jeopardize the vitality of these living languages: "The implications of writing down words in a specific way tends to freeze the words in that form. Dictionaries, by their nature, tend to give the illusion of authority. In this way the act of language preservation – the act of writing down words – creates a stratification within languages, distinguishing a 'standard' and a 'non-standard' form" (p. 314).

The concept and practice of standardizing languages are important considerations in Indigenous language preservation. My late Uncle Lionel described dialects as historical indicators that mark when members of a language community began to pronounce words differently than neighboring communities that, before that time, spoke the same language group and dialect. When a new dialect becomes the living language of a people and their homelands, it also become part of their identity and should be respected. The structure, vocabulary, sounds, gestures, and organization of an Indigenous language or dialect both are shaped by and continually shape the culturally distinct collective identities, ways of being, experiences, memories and consciousness of the people who speak it. An attempt to standardize them "lends legitimacy to one group of people and excludes or marginalizes another group or groups. Linguists are thus, in the process of artifacting the word, complicit in the act of prescription that so many of them decry" (Webster, 2006, p. 314). Standardization processes contribute to the erosion and erasure of culturally distinct indigenous consciousnesses – the linguistic equivalent of actions that generate climate change and the erosion of livable environments on our planet.

Standardization: Fitting into foreign places

Weber-Pillwax's (2001) made a convincing argument that Cree and other Indigenous cultures in Canada and elsewhere are "cultures of primary orality" (p. 149), in which spoken language is more important and central to the shared life of group members than the written word is. Even while Indigenous peoples have assumed literacy in English, they retain a "consciousness of orality" (153), one that preserves Indigenous epistemologies and cosmologies. In public education systems, where standards are vetted and regulated by provincial governments[4] and reflect the educational goals of a culture of literacy, this can become problematic for Indigenous learners. Patriarchal discourses and thought patterns are normalized in classrooms and in provincially approved curricular resources. In the public education system, literacy is political, establishing the authority of the English language, discourse, and understandings of concepts such as assessment, success or citizenship and positioning them as mechanisms of an ongoing effort to assimilate the identity and consciousness of Indigenous learners.

Several years ago, at a meeting where Treaty Six Chiefs had gathered to vote on a memorandum of understanding with the provincial and federal governments on First Nations education, my late Uncle Vince Steinhauer taught me an important lesson. While voting was in progress, he approached the Chiefs' table and spoke: "I have one question to ask you. In that curriculum, it states that it is preparing a citizen. I want to ask you – a citizen of where?" This is an important question. In Indigenous education, we must be intentional about the kind of citizens we are preparing. We need to ask ourselves, "What do our children need to know to become citizens of a First Nation? To become citizens who are party to a Treaty?"

An answer to these questions can be found in the Indigenous philosophy of education presented by the National Indian Brotherhood (1972) (NIB)[5] in its 1972 policy paper, *Indian Control of Indian Education*. The paper was developed in response to the clear failure, on the part of both federally controlled schools on reserve and provincial and territorial schools off reserve, to meet the needs of Indigenous learners. NIB declared in its statement of Indian Philosophy of Education, which opens the paper, that, as adults, we are responsible to see that each child "learns all he needs to know in order to live a good life. As our fathers had a clear idea of what made a good man and a good life in their society, so we modern Indians, want our children to learn that happiness and satisfaction come from: pride in oneself, understanding one's fellowmen, and living in harmony with nature" (p. 1). The paper presented a detailed proposal to devolve control of First Nations education from the federal government (which, as established in the Treaties,

4 In Canada, the K-12 education system is funded and overseen by each provincial or territorial government. The exception to this rule is on First Nations, where the federal government is responsible for funding K-12 education but schools typically follow the provincial or territorial government's curriculum guidelines. As touched on earlier in this article, the federal government has the legal authority to determine who is (or is not) a 'First Nations person with Indian [*sic*] status' and therefore party to treaties and agreements between the federal government and First Nations). Under these treaties, the federal government holds fiduciary responsibility for the education of First Nations people with "Indian [*sic*] status". Disappointingly, this has left First Nations schools chronically underfunded, with some receiving anywhere from 20 to 50% less funding than their provincially funded counterparts do (Drummond and Rosenbluth, 2013).

5 The National Indian Brotherhood was a political organization formed in 1970 by Indigenous leaders from provinces and territories across Canada to fight for Indigenous sovereignty.

would continue to be responsible for funding education) to First Nations, centering the principles of parental responsibility and local control in their model.

While the Canadian government affirmed *Indian Control of Indian Education* in 1973, it has not yet fully honored the spirit and intent of the policy. Inadequate resourcing, inadequate facilities, inadequately prepared teachers, and limited engagement of parents in their children's education have continued to be a problem. First Nations still have not been able to exercise true local control and continue to be held to provincial standards and curricular hours (Kirkness, 1984). These conditions limit opportunities for First Nation children to learn what they need to know to become citizens of their Nation – including, as NIB noted, to learn about "the forces that shape [them]: the history of [their] people, their values and customs, their language" and their own "potential as a human being" (p. 9). Provincial standards and curriculum, however, structure learning environments in which Indigenous students learn "to mimic the 'literate' dialect of the White majority" (Dickinson, 1994, p. 324), speaking words that are audibly hollow. Uncle Lionel called this the "dead words of the living."

"Residential Schools Took the Indian out of the Child. Now, with the TRC, They Want to Put it Back" – Elder Jimmy O'Chiese.

In 2015, the Truth and Reconciliation Commission of Canada (TRC), which formed in 2008 with a mandate to document the history and impacts of the Indian Residential School system on Indigenous students, their families, and their communities, issued a multi-volume report on its findings, along with 94 calls to action. These include seven calls to action directly related to education, which focus on closing education and employment gaps between Indigenous and non-Indigenous peoples; increasing funding for K-12 and post-secondary education; curriculum that is culturally appropriate, including Indigenous language instruction; and (echoing the calls to action presented in NIB's now nearly 50-year old policy paper) increased parental and community control of and responsibility for their children's education (Truth and Reconciliation Commission of Canada, 2015).

Many education policy makers, institutions, and educators are currently making changes in response to the *Calls to Action*. For example, Alberta Education's *Teaching Quality Standard* now includes the competency "Applying Foundational Knowledge About First Nations, Métis and Inuit"(2020c, p.5), as demonstrated by a teacher's understanding of "the historical, social, economic and political implications" of treaties and agreements with Indigenous peoples, legislation affecting Indigenous peoples; and the history and impacts of the residential school system; their support for student achievement by contributing to "capacity building in First Nations, Métis and Inuit education"; their provision of "opportunities for all students to develop a knowledge and understanding of, and respect for, the histories, cultures, languages, contributions, perspectives, experiences and contemporary contexts of First Nations, Métis and Inuit"; and their use of "resources that accurately reflect and demonstrate the strength and diversity of First Nations, Métis and Inuit." Indicators associated with two other competencies also refer to Indigenous peoples. "Fostering Effective Relationships" identifies "inviting First Nations, Métis and Inuit parents/guardians, Elders/knowledge keepers, cultural advisors, and local community members into the school and classroom" as an indicator and "Engaging in Career-Long Learning" identifies "enhancing understanding of First Nations, Métis and Inuit worldviews, cultural beliefs, languages and values" as an indicator (p. 3).

What we need to ask ourselves now is whether the TRC's calls to action and, more critically, current institutional responses to these calls will generate meaningful change for Indigenous learners. The TRC's calls emphasize the need to make meaningful investments of funding and other resources into Indigenous education, and to return control over and responsibility for Indigenous education to Indigenous people. Alberta Education's new standard emphasizes gathering knowledge about (rather than knowledge creation with) "First Nations, Métis and Inuit."[6] What seems to be missing in the standard(s) is any commitment to (or even an awareness of the need to) protect Nehiyawewin and other Indigenous peoples' distinct orality-based cultures and their sacred and spiritual consciousnesses of orality.

If education systems made such a commitment, what would need to change in teacher education? We could begin by moving away from the easy out of adding "content on or about Indigenous peoples" to curriculum, a practice that that too often reduces Indigenous knowledge to notions that tidily fit into dominant boxes of thought; that too often misappropriates, decontextualizes, or collapses spiritual knowledge for presentation as simple "community truths"; and that too often assumes that all Indigenous peoples are intertribal, flattening the distinct cultures, practices, and spiritualities of each First Nation, each group within the Métis Nation, or each Inuit community. We could also stop assuming that textbooks and other written documents or publications are more authoritative than what we might learn from local First Nations, Métis, or Inuit people. Webster's caution that when spoken words are written down, they become artifacts, captured, decontextualized, and detached from the moment of experience in which they appeared, bears repeating. The act of artifacting, he noted, has "social, political, religious, and linguistic consequences (both intended and unintended)" (2006, p.312).

In this discussion of the TRC's *Calls to Action* and the new competency added to Alberta Education's (2020c) Teaching Quality Standards, I want to also acknowledge a contextual

6 Ironically, the term "people" does not appear in the description of either the competency or the indicators that demonstrate that competency.

factor that has persisted since well before the confederation of Canada: settler Canadians' ongoing fixation on "fixing the Indian problem." To be clear, and as a long history of failed policy and practice interventions has shown, in reality, there is no actual "Indian problem." The real problem has been and continues to be that many governmental, institutional, and organizational actors and other people in Canada believe that the "problem" (in whatever form they have given it) exists, seem unwilling or unable to shift from that position, and want it to be either "fixed" or captured and contained.

In the classroom, the perceived "problem" can be Indigenous students' consciousness or mind. As educators, responsible to Indigenous students, their families, and their peoples, we can choose not to capture and lock up this imaginary "problem." We hold the key, and we can choose to throw it away. My Indigenous colleagues and I have discussed the Truth and Reconciliation Commission's calls to action and the process of reconciliation. What is the meaning and intent of reconciliation? If we continue to work with externally imposed standards, will there be room for our Indigenous consciousnesses? Can reconciliation take place if Indigenous consciousnesses are not present? True reconciliation requires a shift to what our ancestors negotiated in their nation-to-nation treaties with the Crown – to live side by side, not in a one-sided world. As Indigenous scholars, we are accountable to truth telling and will not be complicit in the continued marginalization of Indigenous consciousness or Indigenous students. I can hear the words of my late Uncle Lionel: "Truth is surrounded by a bodyguard of total destruction."

The compassionate mind

As I have learned in visits with Nêhiyaw mentors, Nêhiyaw Mâmitoneyihcikan ekwa Nêhiyawêwin (Cree consciousness and the Cree language) are portals in a multi- and omni-relational system that link us to the lands of our ancestors. Every Nêhiyaw word contains "original instructions" that are embedded in the land and expressed in the sounds, vibrations, and silent syllables of our language. For as long as I can remember, I have been told our Nêhiyaw language system is truly ancient and gifted to Nêhiyawak (the Cree) with exact instructions on how to be and live as a Nêhiyaw person. Because of this, it is critical that we continue to speak our languages and dialects in all their distinctness, maintaining specific enunciations that carry embedded wisdoms, retelling a story using the same distinct sounds and patterns that had been used by the person who shared that story with us. In this way, we remain relationally accountable both to our ancestors, the mitisiy (lineage[7]) that ties us back to the first Nêhiyaw people, and to our descendants to come. We are the in-between beings, the link responsible for holding and lifting up the language and its philosophical and structural realities, and our language similarly positions us in-between. Our language is an interface between multi-dimensional, omni-dimensional, and spiritual realms of thought, expression and understanding. Once understood, a Nêhiyaw word can carry levels of meaning that cannot be articulated in or translated into English.

The Nêhiyaw scholars Willie Ermine and Walter Lightning have explored the influence of our language on our consciousness, knowledge systems and epistemology. Their observations suggest that Indigenous knowledge-seeking is an unmapped journey of self and spirit, navigating unknown territory with no certain destination.

> "[O]ur languages suggest inwardness, where real power lies... There was explicit recognition of the individual's right in the collective to experience his or her own life. No one could dictate the path that must be followed. There was the recognition that every individual had the capacity to make headway into knowledge through the inner world... Aboriginal epistemology is grounded in the self, the spirit, the unknown. Understanding the universe must be grounded in the spirit. Knowledge must be sought through the stream of the inner space in unison with all instruments of knowing and conditions that make individuals receptive to knowing... It was in the self that the richest source of information could be found by delving into the metaphysical and the nature and origin of knowledge. Aboriginal epistemology speaks of pondering great mysteries that lie no further than the self (Ermine, 1995, p. 108).
>
> Minds engage in mutual discourse; one of the structural ways this effected is not to attempt to state everything categorically or specifically, but to state things in such a way that there is a continuing unfolding of meaning, as the learner follows the implicates of a statement, and then checks it for "internal coherence" to see if the[y are] "putting it together" properly... Its meaning depends upon the cognitive act of grasping the meaning, realization, insight. It has this implication for learning and teaching; learning is a product of creation and re-creation, in a mutual relationship of personal interaction, of information. It is not just a cognitive (mental) act, but an emotional – thus physical – act. Learning is felt. It is a sensation that is something that involves emotions...learning is ideally a spiritual thing, because the compassionate mind is one that is spiritually centered (Lightning, 1992, p. 21).

Ermine and Lightning understand Indigenous learning as an ongoing, lifelong practice, guided by spirit, animating us emotionally and physically, and nurturing our consciousness. Reflecting to Elder Dumont's description (discussed earlier in

7 The Cree term mitisiy can also mean bellybutton or umbilical cord.

this paper) of "kindness, honesty, sharing, strength, respect, wisdom and harmony" (2005, p. 3) as fundamental values in Indigenous thought and consciousness, it makes perfect sense that the Indigenous mind, spiritually centered and governed by natural law, is a compassionate mind.

Okiskinwahamâkew – Teacher

The Cree knowledge holder Jeff Brightnose (2014) also saw Indigenous languages and thought systems as critical to Indigenous peoples' identity. Referring to an old prophecy that our ways would become dormant for seven generations, he asks, "When that seventh generation arises, what tools are they going to need? Our elders have [told us that] in order for their spirit to understand they are going to need their language. You see the movement happening out there, of our people arising and demanding what they've been denied – their identity."

As educators, we too need our language. Brightnose (2014) explained that the Cree word for teachers, okisinwahmâkek, points to our responsibilities in this role. Those instructions, however, are lost in its translation into English. Okisinwahmâkek shares its roots with the terms ekiskisk (to remember) and nawahmâkewin (spiritual foot tracks), and, when they come together in the term okisinwahmâkek, we are being asked, "What is the spiritual trail you are trying to follow?"

> I was here last year in the summertime. . . on the reserve. I had to go pick up an elder over here and I saw this this dog walking with ten little puppies. You know everything that this dog would do these little ones would do. Onawahmatowehcik ohki (they are being taught), eh? This is what happened a long time ago. This is the way the teachings happen. Even the ducklings that we saw here crossing the road –onawahmatowehcik ana iyiniw siysiypak (who is teaching the ducks)? This is what we talk about enawahmaken (you follow the spiritual path). What tends to happen is that they had a Cree gathering here. . . The high school students were still in school at the time and I was telling [my friend] you see this [non-Indigenous] teacher coming and along behind him he had this string of students this is what we're talking about. Who are they following now? Awina enawahmatowehahcik (who are they related to)?

Brightnose's question about who is teaching our children is important because some of the most critical responsibilities and competencies that educators working with Cree children, youth and families must have relate specifically to culture:

> Teaching in the iniyiw (Cree) way is to demonstrate by modeling, guiding and pointing out. Someone who takes this role is called a kiskinohtahiwew (cultural teacher). . . As for the role, the kiskinohtahiwew needed direct knowledge of iniyiw communities, strong relationships with fellow Elders and ceremony keepers, fluency in nehiyawewin, and the ability to lead ceremonies. . .someone who practices Creator's Laws daily. They also needed extensive knowledge of kinship to help us reconnect children, youth and families to their iniyiw heritage and communities (Kopp et al., 2020, p. 174).

A similar sense of educators' role and responsibilities is expressed in the philosophy of education that guides pedagogy the Kihew Asinîy Education Centre in my First Nation community of Oniskwapowina:

> We the people of Saddle Lake First Nation have a firm belief in the Natural Law (Kindness, Honesty, Sharing and Determination) which guides and maintains our distinct way of life. We are committed to kiskinohamâkosowin (the act of teaching], ekwa kiskinohamâsowin (teaching oneself), ekwa mina kiskinohamâtowin (teaching one another) as a lifelong learning process that involves the cooperation of Elders, Parents, Children, Teachers and Chief and Council of the Saddle Lake First Nation. We believe that kiskinohamâkosowin, ekwa kiskinohamâsowin, ekwa mina kiskinohamâtowin guided by Natural Law will ensure esohkahk Nêhiyaw mâmitoneyihcikan (a strong Cree mind] (Kihew Asinîy Education Centre, 2021).

The pedagogical principles expressed in this philosophy of education focus on nurturing wholeness in students and are at the heart of Nêhiyaw (Cree) pedagogy. They are also at the heart of my own practice as an educator. As an okiskinwahamâkew (teacher), my responsibilities extend well beyond the government standards used to assess my competency as a teacher or my students' accomplishments as learners. My most important responsibilities are to be caring, responsible and accountable in my relationships with my students, to nurture esohkahk Nêhiyaw mâmitoneyihcikan amongst them, and to center my practice in wahkohtowin, our sense of interconnection with and kinship to all living things, including our ancients and descendants.

Nêhiyaw educator and Elder Keith Goulet has explained that the word mooskateneetumowin, which means to feel alone or abandoned, has, as its root words, the terms mooska (to cry out or show outward emotion) and *tenetum* (thinking and cognition; Goulet and Goulet, 2014, p. 67). This condition – to feel so alone and isolated that one's thinking and cognition are impacted – is the antithesis of wahkohtowin. When survivors of the residential school system share their experiences in those

schools, they often describe a constant feeling of loneliness, the state of mooskateneetumowin. As educators, we need we need to break this intergenerational cycle of physical, emotional, spiritual, and epistemic violence and trauma. I encourage all of us to bring the Nêhiyaw pedagogical principles described in this section into their own practice, to come to know Nêhiyaw words as sites of truth-telling and truth-doing, and to replace critical feedback, isolation of students and time outs with a focus on inclusiveness, relational accountability, and nurturing students' feeling of belonging, their healthy cognitive growth, and their development of strong and compassionate minds.

Attending to good intentions

Reflecting on my teaching career, I notice that, with increasing frequency over the last few years, I am simultaneously positioned as a Nêhiyaw knowledge carrier and as an academic. This is an uncomfortable position. In our communities, there are knowledge carriers or holders who have deep and long-held commitments to gather, share and live sacred knowledge, accruing wisdom to match that gathered in any Ph.D. program. I live in and with our knowledge system and have some understanding, but I am not a knowledge carrier. As an educator, I feel like an Indigenous knowledge technician who must find ways and frameworks to translate between two worlds – Indigenous and Western or mainstream – and their sophisticated knowledge systems. It is a complex terrain to navigate.

About 20 years ago, at a think tank in Hawaii that I attended with my graduate supervisors, Drs. Peggy and Stan Wilson, host Elder Emil Wolfgram, commented that we have the cultural hardware, and now we need to develop the cultural software. Since then, I have often thought about his statement and its meaning deepens over time. Initially, I saw our "cultural hardware" as a stand-alone system operating with its own Indigenous language. Over the years, however, my vision has expanded to include interconnection with a larger sophisticated multidimensional network – a cultural interconnection and high context knowledge system that operates in my own First Nation community and the networked web of Indigenous knowledge I was nurtured in had been transposed to the virtual world. It is a fascinating idea. What I still recognize today is Elder Wolfgram's teaching that, as educators we are technicians, cultural software engineers so to speak, working to navigate the natural cultural architecture – not to control it but to understand it. This is my work – not to gather content for institutional reasoning to reteach as Indigenous knowledge. It is much more than that. It is awakening to our own Indigenous constructs and consciousness, operating in an intelligent and sophisticated Indigenous language system. Our Indigenous languages are the true operational system. They articulate multidimensional and spiritual inclusiveness in a compassionate loving way. My work remains dedicated to philosophical frameworks that cannot be recontextualized as content, and that holistically and synchronously engage all our ways of knowing, bringing mind, body, spirit, and heart to every experience. As educators, we must realize recognize that we cannot remain narrowly focused on the intellect. There is much more to nurture in ourselves and others.

There have been moments in my teaching career when colleagues have asked me for help incorporating Indigenous ideas or topics into their curriculum. These have included, for example, Treaties, why ceremonial pipes are important, why protocols are necessary, and a plethora of how to address some Indigenous-related topic. Their understanding of these topics was often decontextualized, and what they learned would be packaged up as information that comfortably aligned with mainstream or western curriculum and ways of thinking about Indigenous peoples.

I really appreciate my colleagues when they reach out for this kind of help. It is a first step to awakening to the rich knowledge systems of Indigenous peoples. What can be difficult is convincing them to take the next steps – to ask them to start their own journey toward understanding Indigenous knowledge networks and architectures. This will be a long journey, one that will require a significant investment of time and effort before they develop the skills and approaches needed to understand our knowledge systems. Many do not want to make the journey. Some might think it is not worthwhile or not necessary. It is. This is not something that can be learned from a textbook. As nohkom Mary Moonias says, "You have to come here and be with us to know." This is the work. It involves building relationships and comes to life as one sits with people who know and nurture a sense of deep and ongoing interconnection and spiritual knowing. Eventually, this can become a way of living, driven by a relational, reciprocal, and responsive duty of service to students, humanity, the earth, universe, and cosmos.

I have non-Indigenous colleagues who want and are willing to take this journey, but, at the same time, fear that they might make a mistake that will offend Indigenous people, and so disqualify themselves. I understand this. I also know that this is a learning process, and, like learning to walk, swim or ride a bike, includes the risk of mistakes or failures. It's personal and difficult work, and one must begin building relationships with community acknowledged cultural mentors who know and are willing to help guide others toward truth.

Circling back to ideas of assessment and uncovering okiskinwahamâkewin

In my own journey as an okiskinwahamâkew, I too have made many mistakes, and the struggle to find ways to honor Nêhiyaw knowledge in student assessment that began in my early years continues. To navigate this challenging

terrain, I draw on ethics shared with me by my cultural mentors, such as the ethic of non-interference, honoring spirit first, and many more.

I also reflect on something Elder Wolfgram said over and over during our Hawaii think tank. Pounding his clenched fist on the table each time he repeated this, he told me that once I got my teaching degree, I would become a "certified colonized." This statement woke me up, reminding me that I must remain committed to honor my role as an okiskinwahamâkew, to embody it as best I can, and continue to learn from others and from myself what it means to be an okiskinwahamâkew.

"We have to stop minimizing our languages," my uncle Lionel Kinuwna told me. Indigenous language systems, with their multi-dimensional translations and conceptual frameworks for knowing, are our operating systems. We cannot diminish them to make them fit into or conform to western or mainstream paradigms. As Elder Jimmy O'Chiese reminds us, this is also true for our ways of teaching and learning:

> "[T]o "Indigenize education" is to put our native education into a box and teach from a European interpretation. It's another way of Europeans describing to us who we are according to their education. We shouldn't be trying to "Indigenize education." We should be recognizing our own Native education as it is, as it always has been, which is our own law – Creator's Law; some call it natural law (Cook, 2017, p. 22).

I hope this discussion has been helpful and I give thanks to the editors who courageously take on this work. Ay hiy niskohmtinawawow kaki yaw. Thank you all.

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The author confirms being the sole contributor of this work and has approved it for publication.

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The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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ORIGINAL RESEARCH
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Relational Narrative Inquiry Alongside a Young Métis Child and Her Family: Everyday Assessment Making, *Pimatisiwin*, *Pimosayta*, and Teacher Education and Development

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Understandings of diverse children, families, and communities/peoples as holding knowledge of and as practicing assessment is little recognized in research for, or in programs of, teacher education and development. Our paper shows the intergenerational relational living that Suzy, a young Métis child, experienced alongside her family as they imagined forward and remembered backward. This process shaped, and was shaped by, the family and Suzy's continuous assessment of her ongoing making of a healthy life. We see important connections between Suzy's and her family's everyday assessment making practices and our experiences alongside Anishinaabe kwe scholar Mary Isabelle Young (Singing Turtle Woman), who lived with us *Pimatisiwin* (walking in a good way) and *Pimosayta* (learning to walk together). Dominant narratives of accountability in universities and schools most commonly serve the institution or government. Much potential opens in teacher education and development when we shift from these orientations to orientations that lift the particularities of each person and our collective responsibilities to all our relations. In this way we move closer to fulfilling our responsibilities to the people and worlds around us, to all of creation, the animals, plants, Earth, and cosmos, and to the next generations.

Keywords: Métis child and her family, everyday assessment making, *Pimatisiwin* and *Pimosayta*, ethical relationality, teacher education and development

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INTRODUCTION

Figure 1 Suzy, her mom Linda, and Janice, one of the co-authors, made the shadow box image below as they came alongside one another in a narrative inquiry into Suzy's experience as she first entered an urban school context. Suzy's dad, Tom, and her siblings, Billy, and Jane,[1] also participated in the three-year inquiry. Over time,[2] Janice grew to understand that from Suzy's perspective her *I Could Stay at Parks*

[1]Suzy, Linda, Tom, Billy, and Jane are pseudonyms chosen by Linda. We wish to express deep gratitude to Suzy, Tom, and Linda without whom Janice's inquiry and this paper, of which they have each approved, would not have been possible. We also want to express gratitude to two anonymous reviewers. Thank you for making time to offer us profoundly insightful and thoughtful response, which has strengthened our manuscript.

[2]Suzy was 10 months away from entering Kindergarten when the inquiry began; she was almost finished Grade Three when the inquiry closed. Suzy was almost finished Grade Four when we negotiated this paper with her, Tom, and Linda.

FIGURE 1 | I could stay at parks forever.

Forever shadow box image could be a way to begin to show the thread of knowing herself in relation with family, places, and gatherings that had resonated across her stories. This thread in Suzy's life making, which Suzy was consciously braiding into who she is and is becoming, had been strongly visible alongside Tom and Linda's stories of how Suzy's (and her siblings') making of a healthy life, lived at the heart of their family practices. This intergenerational relational living alongside as Suzy and her family imagined forward and remembered backward shaped and was shaped by their collective continuous assessment of her ongoing making of a healthy life, long before, during, and following her transition into Kindergarten.

During inquiry alongside Suzy and her family, Janice shared stories of their everyday assessment making with Trudy and Shaun as we inquired into our experiences alongside pre- and in-service teachers in a new course, *Assessment as Pimosayta*. This course was inspired by our long-time friendship and collaboration with Anishinaabe kwe scholar and teacher educator, Dr. Mary Isabelle Young (Singing Turtle Woman). Key was Mary's living with us *Pimatisiwin* (walking in a good way) and *Pimosayta* (learning to walk together). Following her sudden passing in 2015, through the ways she lived her life and through her teaching and scholarship, Mary has continued to call us, as people of Aboriginal and non-Aboriginal ancestry[3] in what is now known as Canada, to try to live *Pimatisiwin* and *Pimosayta* alongside pre- and in-service teachers.

Our study in this paper brings together Suzy's and her family's everyday assessment practices alongside Mary's calling us to live *Pimatisiwin* and *Pimosayta*. In part, we ask ourselves questions of our living in ethically relational ways as we navigate institutions still strongly rooted in colonial narratives. By doing so, we hold ourselves accountable for our complicity, as former teachers and now teacher educators, in assessment practices that can shape life-long harm in the lives of Aboriginal and non-Aboriginal children, youth, families, communities, and pre- and in-service teachers.

PRACTICAL AND SOCIAL/THEORETICAL GROUNDINGS

Given the layered nature of our inquiry, in each upcoming sub-section, we first describe the practical and social/theoretical justifications that shaped Janice's inquiry alongside Suzy, Linda, Tom, and their family. We then show, using italic font, the practical and social/theoretical justifications that shaped the *Assessment as Pimosayta* course.

Narrative Understandings of Curriculum Making[4]

Connelly and Clandinin's, 1988 view of curriculum as a "person's life course of action" (p. 1) has shown: 1) the interwoven nature of children's and youth's knowledge, contexts, and identities and the curricula they and teachers co-make (Huber et al., 2003; Murphy, 2004; Huber and Clandinin, 2005; Huber et al., 2005; Murray Orr, 2005; Pearce, 2005; Clandinin et al., 2006); 2) discontinuities experienced by children, youth, and families when their cultural and family stories differ from dominant school stories (Huber, 2008; Mitton, 2008; Zhao, 2008); 3) that in their interactions with one another, other people,

[3]Trudy is Cree/Métis from northern Alberta Treaty 8 working in Treaty 6. Shaun is non-Indigenous from northern Alberta Treaty 6 working in Treaty 6 in Saskatchewan. Janice is non-Indigenous from northern Alberta Treaty 8 working in Treaty 6.

[4]Many scholars have questioned how the term "curriculum" is often only understood as government-mandated subject matter outcomes, which has created important understandings of the hidden, null, planned, enacted, lived, and experienced curriculum (Eisner and Vallance, 1974; Giroux and Purpel, 1983; Zumwalt, 1988; Aoki, 1993; Greene, 1993; Pinar, 1995; Miller, 2005).

materials, and beings in home, family, and community places children and families are experiencing tensions as they compose their lives in, and between, these curriculum-making worlds and school curriculum-making worlds (Huber et al., 2011; Swanson, 2013; Swanson, 2014; Saleh, 2019; Swanson, 2019); 4) that children and families have ways of navigating the tensions they experience in these different curriculum-making worlds (Houle, 2012); and, 5) that for Indigenous youth, there are connections between their earliest years of schooling and their subsequent early school leaving (Lessard, 2013; Swanson, 2013; Cardinal, 2014; Lessard et al., 2014; Swanson, 2014).

As we came alongside pre- and in-service teachers in the Assessment as Pimosayta course, we invited them to think with the above narrative understandings of curriculum making. To these, we added Battiste and Youngblood Henderson's, 2000 knowledge of how stories offer "processes of knowing" (p. 77) that move across generations and realms. Added too was Ermine's (1995) exploration of how "experience is knowledge" (p. 104). These added understandings helped us to consider how narrative ways of knowing entail a process (a coming to know) that centers how experience shapes us (our knowing, being, and doing).

Early Childhood Education

Early childhood education has been described in many ways. Historically, early childhood education began as an intervention in the lives of children and families seen as deficit when compared to children and families whose lives were privileged by dominant social, cultural, racial, economic, historical, linguistic, institutional, and political narratives (Derman-Sparks and ABC Task Force, 1989; Polakow, 1994; Fine et al., 2004; Goodwin et al., 2008). In Canada, the historical context of what children, youth, families, and communities of Aboriginal[5] ancestry experienced as "education" in residential schools (Battiste, 2013; Young, 2005a; Young, 2005b) adds important dimensions in understanding early childhood education policies, practices, and programs. While Kitson and Bowes, 2010 expressed that the most effective programs for Indigenous children will "reflect the reality of children's lives and provide continuity of experience between home and the early childhood centre" (p. 84), it is well known that "early childhood services are generally mono-cultural and … practice little outreach to parents and families from diverse backgrounds" (UNESCO, 2010, p. vii).

Aspects of this interventionalist narrative in schooling and other institutional and social contexts, which privileges some people and their ways of knowing, being, doing, and relating, became strongly visible in the Assessment as Pimosayta *course. Through term-long autobiographical narrative inquiry, the pre- and in-service teachers became drawn into reflective thinking as they inwardly travelled from their present field/practicum or current teaching situations to their early lives as children, and then back again to their present professional situations. This recursiveness of autobiographical narrative inquiry, opened our (pre- and in-service teachers and, Janice, Trudy, and Shaun's) collective imaginations about what could be, particularly alongside Lesley Rameka's knowledge of "children's learning … as a dynamic process that require [s] the involvement of the learner, the teacher, and the community" (Rameka, 2007, p. 126).*

Creating a new narrative understanding of assessment meant considering the practical and social/theoretical justifications that shaped the need for assessment in schools alongside lives in the making that are centred in social contexts shaped by intergenerational experiences with assessment. As we show in the upcoming section, in Canada, there is a long history of concern about how Western forms of assessment are harming the experiences and lives of children of Aboriginal ancestry.

Life/Social Contexts of Aboriginal Children and Families in Canada

Canadian census data has long documented that most people of Aboriginal ancestry in Canada are under the age of 25 and reside in urban contexts (Canadian Census, 2006; Canadian Census, 2011; Statistics Canada, 2011; Employment and Social Development Canada, 2013a; Employment and Social Development Canada, 2013b; Employment and Social Development Canada, 2013c; Employment and Social Development Canada, 2013d). In the western Canadian city where Janice came alongside Suzy and her family, children of Aboriginal ancestry were identified as representing 15% of the self-identified total population in public schools. Given these statistics, the need for collaborative inquiry with Aboriginal children and families becomes crucial alongside Friedel's (2010) knowledge about how the schooling experiences of children and families of Aboriginal ancestry are pervasively shaped by marginalization, exclusion, surveillance, and oppression. This knowledge raises questions about how assessment that arises out of colonial understandings[6] impacts Aboriginal children (and potentially *all* children). There are significant social implications for assessment that does not attend to life making and experience outside of schooling contexts. Too, there are significant "intergenerational narrative reverberations" (Young, 2005b) shaped by the silence of these colonial narratives in teacher education and development.

The Assessment as Pimosayta course began with and continuously revisited, Mary's emphasis on:

> *Pimatisiwin, that is what it [life] is all about … Try to learn to walk in a good way … If we achieve that one small step towards all of us walking in a good way, both Anishinabe and non-Anishinabe, then we have accomplished something we didn't see at the beginning of our journey, nor could we have even imagined … Kwa yuk ka kwe pimosayta. Let's*

[5]We intentionally use the term "Aboriginal" here to respect the peoples of First Nation, Métis, and Inuit ancestry in what is now known within dominant narratives as Canada. When we use the term "Indigenous" we are attempting to show respect for the many peoples around the world who are of Indigenous ancestry.

[6]Bouvier and Karlenzig (2006) show how a dominant narrative of "accountability" as measured by "students' academic achievement outcomes" (p. 16) as well as how assessing a narrow band of behaviors, persists in public schools in Canada. They foreground how the "legacy of the colonization of Aboriginal peoples … [includes] provincial curricula [which] have continued to marginalize or be indifferent to First Nations peoples' as well as the educational aspirations of Inuit and Métis societies" (p. 16).

> *walk [together] in a good way. (underlining shows italic emphasis in original, Young, 2005b, p. 179)*

Circulating alongside Mary's teachings were the teachings of Pimatisiwin as a life-long journey from Anishinaabe Elder Stanley Peltier (2019); the teachings of Métis Cree Elder Gloria Laird of the importance of adults' listening to children and of letting children know they are listening (2019); and, Knowledge and Language Keepers: 1) Dr. Patsy Steinhauer's teachings of the significant knowledge, intelligence, and rigour "involved in our [Indigenous] languages," such as "kipkipiw", which opens potential for philosophically grounding "Indigenous evaluation" through understandings of "sitting with the sacred, sitting in a sacred circle" (Steinhauer, 2019); 2) Dr. Sylvia Moore's, 2017 teachings of assessment as protocols; and, 3) Dr. Dwayne Donald and Elder Bob Cardinal's teachings that:

> *Each individual's journey kistikwânihk êsko kitêhk (Cree: from head to heart) maintains its integrity and unique voice as it is intentionally woven into the Cree principles of meskanaw (pathway), miyo waskawewin (to walk in a good way) and the Blackfoot concept of aokakio'siit (being wisely aware)" (underlining shows italic emphasis in original, Latremouille et al., 2016, p. 8).*

Emphasis on how assessment could become educative in the lives of Indigenous children, youth, families, and communities gained visibility through Sharla Peltier's (2017) call for educators to "support the child's autonomy as a learner by appreciating cultural differences and by striving to acquire cultural competence" (p. 8); Claypool and Preston's (2011) call for "student learning and assessment techniques … to parallel Aboriginal worldviews and ways of knowing" (p. 85); and, Bouvier and Karlenzig's, 2006 exploration of how "Indigenous knowledge and ways of teaching and learning offer a wealth of … possibilities and benefits for all individuals—Aboriginal and non-Aboriginal—and communities" (p. 15)[7].

As these ideas were investigated in the course, we had strong conversations that took root in our imaginations and then became lived out in our practices. In these conversations and in the writings composed in the course, these ideas spoke to how we wanted to come alongside Aboriginal and non-Aboriginal children and families, and pre- and in-service teachers.

LIVING OUR COMMITMENTS AS RELATIONAL NARRATIVE INQUIRERS

Understandings of experience as stories lived, told, relived, and retold, and of the relational epistemological, ontological, and ethical commitments of coming alongside participants in narrative inquiry (Clandinin and Connelly, 2000; Clandinin, 2013; Clandinin et al., 2016), shaped Janice's inquiry with Suzy and her family as well as the course work with the pre- and in-service teachers. Our centering of each person's experiences in the world as we inquired into the "social, cultural … institutional [historical, colonial, racial, economic, gendered and political] narratives within which individuals' experiences were constituted, shaped, expressed and enacted" (Clandinin and Rosiek, 2007, p. 42), grounded our collective thinking narratively across time and attentive to the interaction of the personal and social and with place(s) (Connelly and Clandinin, 2006). This thinking narratively, which occurred while Janice was alongside Suzy, Tom, and Linda and as we three were alongside one another and pre- and in-service teachers, opened potential to experience the complexity, ongoingness, and multi-dimensionality of experience.

Our desires to live *Pimatisiwin* and *Pimosayta* anchored and shaped responsibilities alongside each person. For example, as earlier described by Janice, Cree Métis Elder Gloria Laird's knowledge and presence was central in deepening her living in ethically relational ways with Suzy as a (young) child co-researcher. As Elder Gloria responded to Janice's uncertainties about creating interim and final research texts *with* Suzy, she turned Janice's attention toward how "children and youth want to know that we, as adults, are listening to them; it is important for us to let them know we are listening" (Huber and Laird, 2019, p. 36). By centering Janice's need to "let Suzy know that Janice was listening to her" Elder Gloria awakened Janice to how:

> With young child co-researchers … there is at least another layer in my relational ethical responsibilities. Awakening to this additional layer alongside Suzy has entailed my attending to *her* everyday practices, *her* everyday ways of knowing, being, doing, and relating (and the materials and processes) through which she chose to share and inquire. (emphasis in original, p. 47)

In the *Assessment as Pimosayta* course at our respective universities, we wanted to centre awareness of the everyday practices that shape and that children/youth enact in their day to day lives. Given the deeply autobiographical and

[7]As we have noted in Cardinal et al., in review, "A thread significant in much of this literature is the damage that Western forms of assessment can shape in the lives of children, youth, adult learners, families, and communities of Indigenous ancestry because assessment is focused exclusively on determining if learners can report or recall content related only to narrowly defined learning outcomes and objectives rather than allowing each child, youth, or adult to *reveal* what they learned. Peltier (2017), focused on the experiences of young children of Indigenous ancestry as they first enter Western-centric school systems, made visible how "mainstream approaches to educational assessment often focus on the learning deficits of Aboriginal people and ignore positive outcomes" (p. 8). Calling educators to shift away from "seeing the Aboriginal child as 'at risk' and in need of educational and specialized child development approaches", she drew attention to the need to "support the child's autonomy as a learner by appreciating cultural differences and by striving to acquire cultural competence" (p. 8). Claypool and Preston (2011), similarly beginning with emphasis on how "the learning and assessment of Aboriginal students remains subjugated by a Western perspective" (p. 84), showed that while there has been some movement in Canada toward "insuring Aboriginal content (including Treaty education), resources and ways of knowing are infused into curriculum" a key overlooked aspect is that in addition to "refining curricula to incorporate Aboriginal voice and identity, student learning and assessment techniques need to parallel Aboriginal worldviews and ways of knowing" (p. 85).

relational aspects of our inquiry with the pre- and in-service teachers in the course we, individually and collectively, experienced Trudy's (Cardinal, 2011) description of a "space for inquiry into our stories" (p. 80) where "more than merely living out research is at work . . . "this more" is the grounding of ourselves in living in relationally ethical ways to all our relations" (Cardinal et al., 2019, p. 126). Trudy's bringing of her and Shawn Wilson's (2008) understandings of "all our relations" to narrative inquiry,[8] not unlike Mary's encouraging us to live *Pimatisiwin* and *Pimosayta*, has continued to widen the dimensionality of experience we now attend to, as well as how we understand the relational ontological and ethical commitments of narrative inquiry. These understandings are central in our living narrative inquiry as pedagogy (Huber et al., 2013; Cardinal and Fenichel, 2017), which we turn toward in the conclusion of this article.

SUZY'S AND HER FAMILY'S EVERYDAY ASSESSMENT MAKING

Imagine a Young Girl. . .

Who Knows Herself In Relation With Family, Places, And Gatherings

In this section, we show Janice's learning through inquiry with Suzy and her family that assessment is interwoven into Suzy's life. It is not an added aspect, but rather, exists as part of the fabric of her life. In the upcoming poetic fragments, Suzy's lived and told stories are on the right-side, Linda's are centered, and Janice's are at the left[9] (Please see insert below I COULD STAY AT PARKS FOREVER).

I COULD STAY AT PARKS FOREVER

We are looking at photographs

That's me going down the slide
When I was little
I could stay at parks forever

~~~

I WAS HAPPY

We are looking at photos
Of pictures showing
Suzy's family
On one of many trips to the west coast of Canada

In an almost singing voice
Suzy says,

There's shells in my bucket
Shells in my bucket

And later:

I was happy
I was happy when I was going there

The west coast of Canada is a special place for Suzy and her family. Before she was born, Tom studied at a university in British Columbia and during her early years, Suzy's Nana and Papa[10] had a cabin on one of the islands in the Salish Sea. Stories of Suzy's experience at this place wove across her, Linda, and Janice's play and visiting. These included Linda's stories of her mom's wisdom about human beings and place:

"My mom says when you're that busy, get back to the woods, get back to nature, 'cause that resets you. It's the only way to reset you". (Please see insert below, GOING TO BED IN THE TENT).

[8]These teachings about *all our relations* and honoring *the more-than-human beings and worlds* we, particularly Trudy (2011) has come to know through her work with Elders, knowledge holders, and scholars, such as Shawn Wilson's (2001) "talking about relational accountability, meaning that the researcher is fulfilling his or her relationship with the world around him or her. It requires researchers to be accountable to "all my relations" (p. 177). Shawn further states that: "Knowledge is shared with all creation. It is not just interpersonal relationships, or just with the research subjects I may be working with, but it is a relationship with all of creation. It is with the cosmos; it is with the animals, with the plants, with the earth that we share this knowledge. It goes beyond the idea of individual knowledge to the concept of relational knowledge . . . [hence] you are answerable to all your relations when you are doing research" (p. 177).

[9]The titles of the poetic fragments are Suzy's words. When Janice created the poetic fragments, she played with differing fonts and sizes to draw Suzy back to her stories of her experiences. To show Suzy the stories she had lived, told, retold, and relived with Janice, Janice highlighted Suzy's spoken stories in italic font.

[10]Nana and Papa are Suzy's maternal grandparents and grandma is her paternal grandparent.
~~~

Gradually, Janice learned that Suzy and her family and her Papa, Nana, aunts, uncles, and cousins also spend time at a cabin at a lake in Saskatchewan. This place has always been in intergenerational history when she reflected on her mom's participation: *"We all . . . [participated] as young girls and Tom's grandma was the camp nurse. I knew her before I met Tom. So, Tom's mom is now the director of that camp."* Suzy and Billy *"go for the weekend with . . . grandma and auntie and they love it. . . . There's archery and a craft cabin and they cook. . . .They never want to leave grandma. Suzy's always asking to go to grandma's; they love it out there."* Part of why Tom and Linda felt Suzy loved this place and time with her grandma was how these experiences connected her with her imagination and wellbeing. As Linda noted:

> *All the stuff that . . . [Suzy does there, it's a] chance to be in nature and to imagine and just be. [We play] basic games like getting lost in the woods and hide-and-seek [and there is] singing at the campfire.*

While Janice realized that Suzy was growing to know herself in relation with each of the above noted people, beings, and places, she also grew in understanding that Suzy was coming to know herself through gatherings with Métis people, as shown through Tom's story:

GOING TO BED IN THE TENT

Just before going camping
In the summer of 2015
Linda bought a play dough cupcake maker
It shaped hours of play while camping

When I asked Suzy
As our hands made with play dough
If she likes to go camping

She nodded
Yes

What is the best part of camping?
I had asked

Going to bed in the tent

Did the rain come while you were camping?
Or was it all very nice?

Good. It was good

Suzy then said
Sometimes
She and her family
Sing songs in the tent

Sometimes
Suzy hears
Night noises
When she and her family
Are sleeping
In the tent

Linda's life as her paternal grandmother grew up there. Linda described this as a *"resting"* place as until recently there was no cell service or power. Linda felt it was a *"privilege [to] not have access."* As Linda shared how Suzy's Nana often commented that when Suzy, her siblings, and cousins are at the cabin they "*never stop. . . . Like we could be swimming for 6 h in the lake and they come back and like, 'OK, let's have some downtime' but no, no one wants to stop,"* Janice learned of Suzy's activeness there, including that *"if the weather is nice, we play outside all day."*

Janice also learned stories of Suzy's grandma, Tom's mom, and her creating *"a good balance"* for Suzy and Billy because she *"gets right down and plays with them. She doesn't direct traffic how we do around the house, and she could care less if there's a mess."* For Tom and Linda, that Suzy was *"happy . . . [is] the most important thing"*, when she was with her grandma. Too, alongside her grandma Suzy had grown to know herself in relation with a rural camp place that had been part of Linda's and Tom's lives since their childhoods. Linda highlighted this

I'M MÉTIS!

We [A doctoral student who is Métis, my daughter, and I]
Are walking toward the area
Where the Celebration is happening
Suddenly,
I realize the child running toward us
Is Suzy

Hhhiiii
Suzy is calling
As she waves her hands

I ask if we can hug

Suzy agrees
And then shows me her sash
While she says,
I'm Métis!

So, we pulled Billy out [of school] for the Riel Commemoration . . . The Surround [a place at the local provincial Legislature Building where the Commemoration was held] was packed. Billy and Suzy and Linda are sitting in the back and I'm watching them cause I'm . . . [part of the Riel Commemoration]. I can see Suzy pop her head up every once in a while and I'd give her a thumbs up or whatever . . .. And [then] at the open house it was all this dancing and jigging [for Suzy]. [S]he's like our little jigging all-star in front of everybody.

Continuing to reflect on this experience Tom had added:

For Suzy and Billy, the sense of community they have, with the . . . [local Métis peoples and communities], 'cause we go to everything, is strong. They dance, they sing . . . and they jig. They've taught themselves through just watching. . . . Because these events are all old people, right? My kids come and there might be a couple of other kids so, they're up there and they're little stars.

The first time Suzy shared with Janice about her Métis ancestry happened at the Daniel's Case Celebration, a gathering to celebrate the supreme court of Canada ruling that Métis and non-Status "Indians" came under federal jurisdiction, a fight for equality of rights that had begun in 1999[11] (Please see insert above, I'M MÉTIS).

Months later, Suzy, Linda, and Janice worked on a shadow box image Suzy named *"I'm Playing Ball Hockey."* As she made the Métis flag, which she put on her jersey, Suzy told Janice, *"It's because I'm a Native"*. That Suzy included this on her jersey showed Janice something of her experience, and pride, in being a person of Métis ancestry.

[11]Additional information about this Celebration and the history of this struggle for justice can be found at: http://albertametis.com/2016/04/join-metis-nation-alberta-daniels-case-celebration-edmonton/ and https://albertametis.com/news/join-metis-nation-alberta-daniels-case-celebration-edmonton/.

Imagine a Family That. . .

Suzy's ongoing coming to know who she is and is becoming through her interactions with family, places, and gatherings were aspects of her life about which Tom and Linda were wide awake. As Janice came to understand something of the dynamic interaction of Tom's, Linda's, and Suzy's stories, she awakened to four threads of experience in the webs of relationship that influenced Suzy's knowing herself through relationship with family, places, and gatherings as she and her family assessed and re-assessed her ongoing making of a healthy life.

. . .Situates Children as Gifts

Early in the inquiry, Linda drew Janice's attention to her and Tom's living by this understanding alongside Suzy and her siblings. As she told Janice about the baby (Jane) they were expecting in the summer of 2016, Linda shared her grandmother's saying that knowing the gender of the baby ahead of time is *"one gift you shouldn't be able to open."* As Tom, Linda, and Janice thought with their seeing Suzy and her siblings as gifts in their lives, particularly alongside tension-filled stories of their identities as parents, Janice understood more of what this understanding meant in their day to day living. Tom, for example, had shared and thought with Linda and Janice about a situation Billy had experienced in hockey, which he described as inwardly drawing him back to his child and youth experience of not *"doing well with bullies."* As Tom thought with this story, he described his knowledge of *"standing up for"* and *"advocating for"* Suzy and her siblings:

I learned that from my grandfather. . . . I stood my ground for Billy. He [Tom's grandfather] was way more extreme. Like the last ball hockey I played, so I was 30, my grandpa got kicked out of the stands. [Laughter]. He was yelling. It was men's division one. It was really intense. Since I was a kid he would advocate, to no end, for me.

Connected with advocating for Suzy and her siblings were Tom and Linda's desires that they continue to grow with confidence, as Tom shared:

> *Suzy . . . is so genuine. She's not afraid to talk to anybody or get up and say whatever she's thinking, even if it's the weirdest thing you've ever heard . . .. She's always got questions to ask . . . and I just hope she doesn't, that she's not afraid to ask questions, that she's not afraid to get up and do whatever it is she needs to do or say. That's the thing I see, like potentially it might even get broader. But it might also narrow with her, especially if the teacher doesn't have the patience for her. [Suzy will be a] 4-year-old . . . [child] when she starts [Kindergarten and I wonder what will happen if she] wants to have some obscure conversation and wants to know why, or wants the personal attention on things. So that's kind of my, I don't know if it's a fear, but it's kind of what I think about with her entering Kindergarten.*

. . .Consciously Values Family and Community

That Suzy and her siblings could grow in knowing the place and neighborhood where they lived, was a strong desire for Tom and Linda. However, early on Janice learned that these desires were conflicting with institutional narratives at Billy's school. These conflicting stories were told and retold, beginning with stories of Linda and Tom's decision, when they began to imagine having children, to return to their current home city *"right back to the neighbourhood where . . . [we] grew up"*. As Suzy's entry into Kindergarten was eminent, families in the neighbourhood were hearing about a new *"enrolment zone"* for the neighbourhood school. While, as a current student, Billy *might* be able to continue to attend the neighbourhood school, the possibility for Suzy to also attend was, for months, filled with uncertainty. As Linda noted:

> *I'm so tired of this overpopulation and this fear of what will happen for Billy and Suzy. . . . We moved here because they were going to build a school, my kids could walk. So, you build on those things.*

Linda deepened Janice's understanding about the significance of this decision when she shared:

> *We had eight kids, including Billy and Suzy, in the backyard yesterday—neighbourhood kids . . .. For 3 h they just played and played. . . . It was very good.*

The neighbourhood where Suzy and her family lived was important; in that place, they had community and understanding of connection. Institutional policies like the newly emerging school enrolment zone interrupted Linda and Tom's familial story of the children being in school together and how valuing family and community was important in their family.

. . .Desires to be Education Partners, and For the Children to Also Be

When Tom first contacted Janice to learn more about the inquiry, he shared numerous stories of the pain he, Linda, and Billy had experienced when Billy was in Kindergarten. Although at the time of his initial conversation with Janice, Billy was in Grade One, this pain was still reverberating in Tom. Billy's experience in Kindergarten also often wove into Suzy's, Linda's, and Janice's play and visiting, including through Linda's continuous expression of her wish for Suzy's *"classroom to not be an overly populated classroom"*, to which she had added, *"There was no relationship between me and Tom and Billy's Kindergarten teacher."* Reflecting further, Linda had shared:

> *It's been going on since I was a kid. Like we had 32 kids. But we were in junior high. But in these early stages . . . I don't understand why there isn't more importance in having a smaller class. Like these are little kids. I think as human beings that's how and where we thrive, it's when it gets personal.*

Earlier, Linda had puzzled about a conversation around *"failing children"* during her volunteering for a field trip with Billy's Grade One class. This conversation had stayed with her, as had her sense of teachers' *"need[ing] to find a way that school learning connects with the students"*. Months later, Linda had reflected:

> *Tom was book smart. In college he never opened up a textbook and did fine. If it was me, I wouldn't [do well]. Like we're all so different in learning. . . . So, it just opened my eyes to the whole thing, like, it isn't just about not failing a student who just doesn't want to do anything, it's finding the way, because they are brilliant kids.*

Linda's sense of the need for relationships between children and teachers also extended to relationships between teachers and families:

> *Turns out yesterday, the Grade Two teachers won't open the door for me. And I want to talk with Billy's teacher. . . . I had this one Grade Two teacher standing at the door looking out at me; she won't let me in. I had to wait for a child to come out, so I could get in. That doesn't feel good.*

While Tom and Linda told and retold stories of not always feeling as though the teachers or school situated them, and Suzy and Billy, as partners in education, in relation with their Métis ancestry and knowledge, Tom reflected that the school *"actually wants me to come in . . . and bring something and talk about it"*. However, Tom and Linda's sense of their, Suzy, and Billy being valued as Métis peoples was always fragile. As Linda had showed:

> *On Friday it was on Billy's agenda, 'wear orange shirt'. There was no background on it. I said, "What's that about?" [Billy said it was] "about being kind to kids." . . . I thought it was affiliated with the anti-bullying . . .. Then, later I'm reading CBC news and the whole background on Orange*

Shirt Day[12] *and I was so upset. . . . So, I asked, "Did your teacher share anything about it?" We even said residential schools. "No, nothing, just about being kind to kids." I know in Grade Five—I heard from a Grade Five teacher that's when it's in the curriculum—that you learn about residential schools. Maybe Grade Two is a little bit too soon, I get that, but I wish I would have known. There was nothing on [the electronic school-parent communication portal] that is supposed to be our form of communication. Nothing. There's a parent council on Tuesday night so Tom's going. If you're gonna make kids wear an orange shirt you need to have a discussion about why. . . . We did Terry Fox*[13] *and a Crazy Hair Day and on that Crazy Hair Day was also Orange Shirt Day. For years I have said that our kids should know our own history.*

Often, Linda and Tom wondered with Janice about possibilities, including when they felt significant disappointment and frustration, about the fragile nature in school situations of their, Billy, and Suzy's identities as Métis peoples. As Linda had highlighted:

Tom and I talk about . . . [how] knowledge is power. We should be informed about these things. When I reflect back on my school . . . we did not learn about the history of First Nations or Métis peoples. It's only in these years where I'm going to museums and focusing on Canadian history [that I am learning this history]. . . . I don't remember learning any form of real Canadian history.

Tom had added:

Too, the stuff you're doing [this research focus], is absent. There might be some focus . . . [on Social Studies lesson plans that include Métis content], right? But we're concerned about actually getting the kids to school to learn, not just having the other kids learn ***about*** *[emphasized] Métis in an appropriate way. It's about getting our kids there, which is totally different than having a, you know, historically correct story on Louis Riel as part of your social studies program, right? What does that mean to Billy? Hopefully he knows the story already. It's about getting to school and staying in school, and passing the classes.*

As Tom and Linda storied and restoried, the role of their family as education partners was not without tension, particularly when aspects of their lives were not recognized in school or when, at other times, their lives could not easily be "presented" about to a classroom.

. . .Is Intentional About Growing Their Métis Roots

Early in their inquiry Janice learned that *"literally the day before Suzy was born . . . [Tom, Linda, and Billy] met . . . [Tom's] dad for the first time. That would have been September, and then . . . [the following May] he passed"*. As Tom told this story of his *"huge family tree over there [in Manitoba] of Métis"* he added:

We just visited this huge family we never knew much about, until four years ago. . . . A huge family tree over there of Métis living on Métis land. And we went back there again cause Billy was wondering, he wants to know. I want them to know all the little cousins. My dad, I didn't know him really well but, when he died, we went to the funeral. It was weird to meet everybody who I hadn't seen for probably 15 years, maybe longer.

As Tom, Linda, and Janice thought with the importance of Suzy and her siblings coming to know their Métis family, ancestors, and place(s) in Manitoba, Tom reflected on his experience growing up. *"There was so much stigma. It's not that I didn't know 'cause my mom always told me, "You're Métis". [But] you see things in your life that happen, and you just don't want to identify"*.

Tom and Linda were adamant that Suzy and her siblings would grow pride as Métis peoples. They saw relationships as key in this process and, together, they were involved in the community to support Suzy's and her siblings' making of relationships. Early on, Tom shared how he was working with a Métis organization to support *"a big hockey tournament"* where *"1000s of Aboriginal kids"* participate. Because of Billy and Suzy, Tom was working to ensure that *"a Métis team"* was included, which Linda later told Janice was an experience where Billy and Suzy *"just had fun"*. The tournament included additional activities for the children to interact with one another, such as having meals together and bowling. Linda felt that Billy and Suzy experienced the tournament like a *"summer camp"* where they wanted *"to be there and [are now] looking forward to reconnecting with friends from earlier camps."*

While Tom and Linda were constantly searching for Michif language and fiddling classes for Suzy and her siblings, when they could not find these, they took every opportunity to participate in Métis gatherings, including the Celebration of the "Daniel's Case" in May of 2016. When Tom later reflected on what this case might mean in Billy's and Suzy's lives, he expressed:

It's interesting at a time when Billy and Suzy are learning their culture and Métis identity . . . to have something like that, that's about jurisdiction. . . . Being an Indian hasn't worked out well in general for anybody. . . . [The Daniel's Case] . . . creates jurisdiction and that forces the federal government to sit down and talk about outstanding claims, issues, past injustices and so on.

Continuing, Tom had added:

Is it gonna be something that's gonna benefit my kids in a way that Linda and I aren't working to already benefit them? I don't know. . . . It would be nice to have some respect. To me, the biggest thing for reconciliation is just

[12]Orange Shirt Day is a day to remember the tragedy of children sent to residential schools in what is now named by dominant narratives as Canada.

[13]Terry Fox was a young man who tried to run across Canada to raise money for cancer research after he had a leg removed due to cancer. Sadly, he did not complete his journey, succumbing to the disease. Since his passing each year there are runs in communities across Canada to raise money for cancer research.

> *. . . acknowledgement of what happened and then the ability to celebrate who you are and your unique identity and spot in Canada, right, with other Canadians.*

Embracing their intergenerational understanding of family and knowing and being as Métis peoples was important to Tom and Linda. It was important to them that their children were raised with opportunities to develop a strong Métis identity.

THINKING WITH SUZY'S AND HER FAMILY'S EVERYDAY ASSESSMENT PRACTICES AND ASSESSMENT AS *PIMOSAYTA* IN TEACHER EDUCATION AND DEVELOPMENT

Understandings of diverse children, families, and communities/peoples as holding knowledge of and as practicing assessment is little recognized in research for, or in programs of, teacher education and development (Huber et al., 2011). Suzy's, Linda's, and Tom's stories show how, every day, they are attending to Suzy's growth, to who she is and who she is becoming. This attending is grounded in, draws out, and extends forward their intergenerational experiences, knowledge, contexts, and identities. This attentiveness has and continues to shape Suzy's, Tom's, Linda's, and their ancestors' lives across time and place as they have interacted with broader social, cultural, institutional, historical, colonial, and political narratives. In our (Janice, Trudy, and Shaun's) thinking with these aspects of Suzy, Tom, Linda, and their families' everyday assessment making practices alongside understandings of assessment as *Pimosayta* in teacher education and development, we see numerous possibilities.

As she led talking circles with pre- and in-service teachers through which she encouraged living *Pimatisiwin* and *Pimosayta*, Mary Young shared through story how the legacy of residential schools was still reverberating in her life and in the lives of many residential school survivors and their families and communities. Always, as she shared these stories, Mary made clear the intention of the federal government to "insulate" children of Aboriginal ancestry "from the influences of their own people" by subjecting them "to a program designed to lead them to forget who they were and to adopt the ways and values of their teachers" (2005a, p. 33).

Linda and Tom's influences are deeply visible in the everyday assessment practices they and Suzy live. As Tom was a child alongside his mom, he grew knowledge of himself as a Métis person, which continued to grow as he developed relationships with his dad and family in Manitoba. Suzy and her siblings are now growing knowledge of themselves as Métis people because of Tom's and Linda's commitments that they continue to grow, with deep pride, this aspect of their identities. Amidst the ongoing colonial legacy in Canada, which reverberates into the social, cultural, economic, linguistic, racial, political, institutional, and familial narratives that have and continue to impact the lives of Métis peoples, Tom and Linda are intentional about ensuring that Suzy and her siblings grow relationships with Métis peoples, places, and stories, locally and nationally, and the ways of knowing, doing, being, and relating that live in these people, places, and stories.

As Linda was a child alongside her parents, she grew knowledge of who she could be in relation with a lake and place in Saskatchewan. This growth has continued forward as she now embodies her mom's teaching of the connections between more-than-human worlds[14] and wellbeing. Currently, Suzy and her siblings are growing knowledge of themselves in relation with this and additional places where they can slow down and "reset" themselves. As Suzy and her siblings have continued to grow forward in their lives, Linda and Tom have stayed committed to ensuring they know and feel grounded in place(s), including the neighbourhood where they live and with the children and families next door and down the street. Tom and Linda have made life decisions because of these commitments to Suzy and her siblings—commitments that also shape their desires for relationships in and with the schools and teachers with whom they, Suzy, and her siblings interact.

Visible, too, are Suzy's influences. Suzy was a young child during the years Janice was alongside her. Yet, Tom, Linda, their family, and Janice were all influenced by her, just as she was influenced by them. One of Suzy's influences was made visible by Tom as he reflected on Suzy *"always . . . [having] questions"*, which he foregrounded as he wondered if her curiosity would be valued by teachers who come alongside her. Suzy's experiences remind us of how we learned alongside Mary Young. When Mary shared some of the many experiences and perspectives that threaded her living of *Pimatisiwin* and *Pimosayta,* she (Young, 2005b) often drew on Anderson's (2000) knowledge that:

> Aboriginal children are precious to us because they represent the future. They are not considered possessions of the biological parents; . . .they are understood to be gifts on loan from the Creator. Because of this everyone in the community has a connection to the children and everyone has an obligation to work for their well-being. Each of us has a responsibility. This work is urgent—not only because Aboriginal children have been (and are yet) assaulted, but because the focus on children and the respect that our societies gave to children were so severely damaged with colonization. (p. 162)

Suzy, like all children, are gifts. They influence us, as adults, as much as we influence them. It becomes crucial to us to consider these influences as we consider what influence school-based assessment has on children (and us).

IMAGINING OUR STRIVING FORWARD

Mary's continuous calling of us to live *Pimatisiwin* and *Pimosayta* turned us toward creating the *Assessment as Pimosayta* course. We know from our own life making, teaching, and ongoing inquiry that when the intergenerational and intersectional wholeness, complexity, and layeredness of lives become visible, much about how assessment is practiced in schooling contexts, which includes universities, misses and/or harms the forward-

[14]Please see earlier footnote # 8.

looking stories of children, youth, families, pre- and in-service, teachers, and teacher educators (Murphy, 2004; Clandinin et al., 2006; Cardinal, 2010; Murphy, 2010; Cardinal, 2011; Huber et al., 2011; Young et al., 2012; Swanson, 2013; Cardinal, 2014; Swanson, 2014; Huber et al., 2018; Swanson, 2019; Murphy and Huber, 2020).

they too are deeply desirous of change (Please see insert below).

These four teachers show how their turning their assessment pedagogy toward *Pimatisiwin* and *Pimosayta* threaded into their forward-looking stories, strong desires to live in good ways alongside children (and families and communities)[16].

Course, unlike any other
Challenges [typical] assessment
Focuses on human aspect of child
We as teachers must always consider [this] when reporting their growth.

We all naturally possess a Pimosayta way of knowing
Just aren't allowed to be that way in current system
I loved…feel[ing] permission to behave in a good way

Course re-energized me
Was sure I would never teach
Reminded me of possibilities
Also, the responsibilities I carry
Settler on this land, Turtle Island
No neutral with Indigenous assessment
Be proactive in honouring children…

Learning to walk in good ways
What could be in education
Thinking with our stories
A life changing experience
There is hope in education when we are able to collectively consider pedagogical change
In order to accept other forms of acquisition of knowledge and wisdom!

While the *Calls to Action* from the Truth and Reconciliation Commission of Canada (2015) have begun to influence schools and universities, the gap that Claypool and Preston (2011) noted about how "student learning and assessment" in K-12 education in Canada "need [s] to parallel Aboriginal worldviews" (p. 85), is also profoundly evident in teacher education and development. Our complicity in this gap in teacher education and development influenced our desires to create the *Assessment as Pimosayta* course. In its first offerings, at our respective universities, we were uncertain if pre- and in-service teachers would enrol, yet they did, in large numbers. In our conversations with them at the course beginning and throughout, many of the teachers expressed tensions about the highly colonial nature of assessment. From their lives as children and through experiences in field placements or as classroom teachers alongside children, they were wide awake to their complicity in this colonial narrative. As is shown through the poetic fragment below[15],

Imagining our forward-looking stories in teacher education and development as we honour Mary's calls for *Pimatisiwin* and *Pimosayta* alongside the assessment making practices of Suzy, Linda, and Tom, alongside the wisdom lifted in the *Assessment as Pimosayta* course by the Elders, Knowledge and Language Keepers, scholars and teachers, we return to Trudy's (Cardinal, 2011) invitation for us to live in more ethically relational ways with all our relations[17]. While Trudy first raised this way of knowing, being, doing, and relating as a methodological imperative for narrative inquirers, this imperative also holds significance for us as teacher educators. The pedagogy of assessment that Trudy urges us toward, moves far beyond the dominant narratives in teacher education and development. We

[15]These poetic fragments were created from four of the pre- and in-service teachers' course evaluation comments.

[16]We are grateful for one reviewer's response to an earlier draft of this manuscript in which they expressed a desire for more glimpses into our conversations as we imagined, lived out and have continued to reflect upon the *Assessment as Pimosayta* course. We deeply appreciate this reviewer's invitation and wish to note that two earlier co-authored manuscripts offer these deeper glimpses. Please see Cardinal et al., 2019 and Cardinal et al., (in review).

[17]Please see the earlier footnote # 8.

are called to shift away from the dominant story of assessment that requires and teaches via the hidden, null, planned, enacted, lived, and experienced curriculum, that ongoing generations of teachers must/should compete for the highest grade or awards and scholarships and by extension, must/should assimilate ongoing generations of children to believe this is what matters most in schooling, and in life. By inviting us to attend to our long-term responsibilities to all our relations, Trudy plants possibility for us as teacher educators, and for teachers, to live *Pimatisiwin* and *Pimosayta* in which ethical relationality is at the heart of the pedagogy we live by, both within and far beyond contexts of schooling. Trudy keeps us asking ourselves: what future(s) does the pedagogy of assessment we privilege move us, teachers, children, families, strangers, institutions, society, and more-than-human beings toward? Do these futures lift Mary's teachings of *Pimatisiwin* (walking in a good way) and *Pimosayta* (learning to walk together)?

DATA AVAILABILITY STATEMENT

The data sets presented in this article are not readily available due to research ethics the data set is private. Requests to access the data sets should be directed to jhuber@ualberta.ca.

ETHICS STATEMENT

The study involving human participants was reviewed and approved by the Research Ethics Board, University of Alberta. Written informed consent to participate in this study was provided by all the participants, including the child participants' legal guardian/next of kin.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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The Child Is Capable: Anishinaabe Pedagogy of Land and Community

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Situated within a post-Truth and Reconciliation Commission Canadian context, educators are seeking Wisdom to create space in schools for Indigenous Knowledges, perspectives, languages, and histories. An Anishinaabe scholar invites readers to make meaningful connections to knowledge from experience that centers the child within the context of an Anishinaabe summer harvest camp, a competition powwow, and a smokehouse. The storyteller takes an inward turn, exploring features of the communal learning process conducive to the learning spirit, self-evaluation, and participation in learning and teaching that matches one's readiness and skill. The story is powerful for connecting the heart and mind, stimulating receptivity to assessment-making opportunities for teachers that are relevant to Indigenous student community teaching-learning traditions. True to the storytelling method, the stories here are meant to stimulate remembering, reflection, and a process of deep knowing. The author invites educators to think with the stories for inspiration toward personal possibilities of praxis. Positive educational transformation is set into motion as teachers connect with Indigenous peoples to honor the diversity of children, co-create a relational curriculum inclusive of family and community to embrace Indigenous Knowledge that comes from the Land, and create space to generate and transmit new knowledge through story.

Keywords: indigenous pedagogy, relational curriculum, assessment, indigenous community, indigenous education, assessment, culturally responsive, Anishinaabe

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INTRODUCTION

This article promotes understanding of Indigenous Knowledge processes, pedagogies, and ways of Being to disrupt educational inequities and inform assessments complementing the Indigenous child's language and community contexts. Teacher assessment of student learning aligns with Western-European epistemologies of schooling that perpetuate the sociocultural mismatch between many Indigenous children's homes and schools. The centering of Western thought and language reflects that Indigenous learners are perceived through a deficit lens. A process of decolonization in the Canadian post-TRC context moves beyond apologies for the past with complacency in the present, and the pluralist agenda of multiculturalism, to make significant contributions to educational transformation with validation of Indigenous Knowledge, ideology, and learning spaces inclusive of Indigenous traditions of teaching and learning. This article and the stories shared engage educators in a journey of learning and unlearning. Learning about and growing understanding of Indigenous Knowledge as a construct brings focus to appropriate assessment based on Indigenous pedagogical processes and ways of knowing. Unlearning what counts as knowledge in the classroom opens windows of possibility for different kinds of knowledge and assessments that are inclusive of the Indigenous student. Since patterns of colonial violence can be found on every

continent, it is imperative that decolonizing education be an Indigenous responsibility and be placed at the forefront of education. This article may lead Indigenous and non-Indigenous educators to consider the value of an Indigenous assessment paradigm for a relational learning environment.

The stories presented here are based on my lived experiences and are meant to illuminate Indigenous community contexts for teaching-learning, shedding light on the gifts, skills, and capabilities of the child. Assessment in school classrooms provides a narrow glimpse of learning skills and processes at a particular point in the child's academic learning. Teachers cognizant of the bigger picture of what the Indigenous child brings to the classroom are positioned to make learning and assessment culturally relevant and appropriate to the local context.

Stories shared in this article are about Anishinaabek children immersed in family and community activities to illustrate Indigenous teaching-learning traditions and stimulate queries around classroom learning assessments. Indigenous Knowledge processes and teaching-learning contexts grounded in Lands and Waters and community relationships are brought to the forefront through story, informing educators' appreciation of different kinds of knowledge and family and community contexts where Indigenous children demonstrate gifts, have agency as learners, and are capable. In line with Indigenous story tradition cultural practices, the stories in this article are "given away" with the intention that the details are pivotal for educational practitioners and policymakers to generalize to their world. The power of story for decolonial educational transformation is evident in the provocation of things for the reader to notice, reflect upon, and do. The reader is invited to think with the stories and to be inspired toward personal possibilities of praxis for educational transformation by returning to reflect on the stories after reading the article.

This article is inspired by the Indigenous scholarship of resurgent epistemological and ontological ways alongside the critical examination of the colonial hegemony of schools that marginalizes Indigenous students. The article is intended for educators, teacher educators, policymakers, educational administrators, and educational researchers interested in culturally responsive Indigenous learning assessment. The honoring of story, relationships, and authenticity in academia is brought forth in the writing for readers to think with the stories to find inspiration toward personal possibilities of praxis for educational transformation. Positive educational transformation is set into motion as teachers connect with Indigenous peoples to honor the diversity of children, co-create a relational curriculum inclusive of family and community to embrace Indigenous Knowledge that comes from the Land, and create space to generate and transmit new knowledge through story.

The Purpose of This Article Is Threefold

1. To inform the educator's journey toward understanding and valuing Indigenous culturally responsive teaching-learning-assessment.
2. To illustrate the Anishinaabe child's engagement with Indigenous Knowledge as a lived, communal process of coming to know at a deep level and family-community perspectives that the child has agency and innate gifts and capability in learning.
3. To inspire educators to take action in ways that honor relationality and reconciliatory educational transformation by building relationships with Indigenous families and communities, so that teacher observations and experiential stories inform praxis for Indigenous student success.

This article begins with a story and photo (**Figure 1**) taken on a hot July afternoon on the north-eastern shore of Lake Huron to illustrate the foundational principle within an Indigenous teacher-learner paradigm that the child is viewed as capable. The child as a deficit is a foreign/colonial and harmful lens.

Anishinaabek[1] were camped for 1 week of family cultural experiences harvesting, preparing, and storing local foods. A group of adults were gathered in a shady area preparing dried cakes from a mixture of fish, berries, maple sugar, and fat. Children were within sight at the beach, where they swam and played in the frigid water. One of the camp leaders was pounding dried fish. He used a wooden stump and a 10-pound stone to pulverize the dried fish inside a pillowcase. A seven-year-old boy, slender and bronzed from the summer sun came close to observe for a minute and then he asked, "Can I do it?" The man handed the stone to the boy and held the pillowcase in place on the stump. From his place on the ground, he looked up at the boy with a huge smile. The boy balanced the heavy stone on his shoulder for a moment and with both hands, guided the stone with precision to hit the target. "Whump!" A spontaneous cheer from the adults rose up to acknowledge the child's skill. The boy's face lit up. Within a few seconds, he turned and ran back to the beach.

MAKING AN INDIGENOUS PARADIGM VISIBLE

Indigenous Knowledge

A good starting place for motivating educators to take on the work of bringing Indigenous culturally grounded assessment into their praxis begins with appreciating Indigenous Knowledge and relational epistemological principles, understanding and valuing the Indigenous ways of teaching-learning and assessment. Scholars from diverse academic and cultural perspectives have created space for a progressive epistemological position in academia, which holds that there are different ways of knowing and conceptualizing reality. Indigenous peoples come to know through language, songs, stories, ceremonies, observations, and dreams, and the validity of Indigenous Knowledges in the academy is gaining respect.

[1]The term Anishinaabek refers to Anishinaabemowin-speaking peoples and includes the Algonquin, Chippewa, Delaware, Mississauga, Odawa, Ojibway, and Potawatomi of the Great Lakes Region of North America. The term Indigenous in this article refers to the first peoples that occupied North America and, more specifically, Canada—unique in their own cultures—but common in their experiences of colonialism and understanding the world.

Indigenous Knowledge is a lived process situated within a context of relationships. Indigenous scholars bring focus to the vastness of relationality and situate Indigenous Knowledge within systems of interdisciplinarity and cosmology. Mi'kmaq scholar and educator Battiste, in 2020, (Battiste, 2010) described "the learning spirit" as an animated process and experience. Cree philosopher Ermine (1995) has examined Indigenous Knowledge as an interaction of life experience, relational collectivity, and inner knowing, for example, "(e)xperience is knowledge" (p. 104).

The Anishinabek and other Indigenous nations, in what is now called Canada, transmit Indigenous Knowledge through the oral tradition. Stories and Teachings have been passed on orally since time immemorial. The philosophy that knowledge comes from the Earth[2] is exemplified by "a broad sense of knowledge with a specific place and the pedagogy contained within the stories that were conceived within that place" (Kulneik et al., 2010, 19). As Indigenous peoples, we originated on Turtle Island/North America and we have been gifted with original instructions to live a relational way of life that is in balance and in harmony with the Creation. Indigenous Knowledge is a way of Being, knowing, and doing over one's lifelong process of observing, listening, engaging in life activities, and developing skills modeled by family and community members. It means developing our gifts and sharing them to support our families and communities.

The relationship of memory and story within Indigenous educational processes is different from Western conceptualizations of knowledge and rote learning. Elder stories about experiences and observations of the natural environment represent knowledge through stories passed from generation to generation. The maintenance of mutual balance and harmony in all aspects of Creation is supported by ways of acquiring knowledge and codes of behavior through oral tradition and storytelling. Cultural-social ways of Being in an Indigenous paradigm underscore the value of knowing who we are and where we come from. A person values and listens to Elders' stories, creating consciousness of the past and informing worldviews, responsibilities, and commitments. Present time and future life considerations flow from personal experiences and knowing the collective memories. A person's ability to make good decisions is a reflexive process stimulated from careful listening and respect for Elders' stories and insight into personal lived experiences. There is a moral duty to remember in this way. Oral history tradition represents Indigenous Knowledge in a non-linear way, based on experience, reflection, and re-telling[3]. The storyteller imparts their own life and experience into the telling of stories and the listeners filter the story being told through their own experience and reflective thinking and make it relevant to their own life. The oral tradition sustains culture and is upheld by the responsibility to share stories in the community. The culturally embedded role of the storyteller is to make sense of his/her own life story concomitant with the collective memories of the people and to share the reinterpretation.

The socio-cultural-linguistic relationality of an Indigenous paradigm forms the context for learner engagement in a holistic process of embodying new knowledge. Indigenous pedagogy is a lived experience where intuition and the inner journey of reflection inform a learner's process of coming to know deeply. Learning about the inner process of balancing the heart, mind, intuition, and body through being in the moment and journeying to the inner space of reflection and self-knowing are fundamental to exuding positive perspectives outwards to relationships with others and for the understanding of and appreciation for Indigenous perspectives. The non-linear, cyclical process and non-compartmentalized nature of Indigenous Knowledge mean that the learner engages in learning over their life-path journey with different experiences stimulating a variety of entry points at different times for deeper learning.

The learning journey is guided by family and community in relationship with Land and the child's gifts and skills are made visible through communal and ceremonial processes. Learning begins in the womb, where the child is central within a relational way of Being. Cultural ways of honoring the child and supporting their early development are significant to grounding them to Place during their early years. These culture-based early child development practices were almost extinguished due to colonial policies and racist interference but are being revitalized in Indigenous families and communities today. An Indigenous child's early learning is primarily guided by the parents, grandparents, and family members. The kinship structure of the Anishinaabe family is extensive beyond blood relatives. Negwaadodem refers to the whole clan of family and community kinship inclusive of ancestors. Kinship terms of endearment are modeled and the individual shows respect for those who teach and care for them by calling them, "Niitaawis/cousin," "Nooshenh/auntie," "Nizhishenh/uncle," "Nookmis/grandmother," and "Mishoomis/grandfather." Over the course of the life-path journey, Indigenous Knowledge keepers, language keepers, grandmothers, and grandfathers provide guidance and support as the individual engages in learning toward the acquisition of Nibwaakaawin/Wisdom.

Language

The incorporation of Anishinaabemowin[4] (Ojibway language) conveys worldview perspectives and exemplifies the Indigenous paradigm and ways of knowing. In my academic journey over the past 10 years, I have been dedicated to examining Indigenous educational philosophy and teaching-learning contexts. My learning and writing processes have been enriched by being alongside Odawa Elder, Stanley Peltier (my husband), Language Keeper. As a language learner, our discussions about the contexts of education being examined create opportunities for meaningful connections that Anishinaabemowin provides. Over the years, my stories and written work incorporate

[2]Earth and other words that are typically not capitalized appear in this article with a capital letter to denote an Indigenous voice and Indigenous perspective.

[3]Willie Ermine, 1995, 101–112.

[4]Anishinaabemowin refers to the Aboriginal language and language dialects of the Anishinaabek.

Anishinaabemowin, more and more, to be centered on conceptions of Anishinaabe relationality and worldview.

Indigenous Story Method

The Indigenous story method (Wilde, 2003; Kovach, 2009) is fundamental to an Indigenous Knowledge paradigm where knowledge is experience and knowledge transfer occurs through story. As an Anishinaabe Kwe (woman), what I bring forward is not knowledge from a neutral or objective positionality but knowledge that comes from the Land by living in a good and relational way with Lands and Waters. In this article, I share stories from observations, queries, and reflections from being alongside Anishinaabe children immersed in family and community activities on the Lands and Waters.

I situate myself as a teacher-learner and offer stories to illustrate what Indigenous Knowledge is and how I teach and learn. Lived experiences and engagement in listening, observing, and engaging in family and community processes and repeating cycles of reflection on lived experiences and relationships motivate me to take notice, question, and come to know more deeply. Immersion in the storytelling tradition means that I value and share personal experience stories to connect with others and contribute to the creation of new knowledge.

Indigenous Knowledge comes from the Land and each of us is situated in a specific place. In my place of origin, I am known as Mskokii Kwe or Red Earth Woman and I am a member of the Loon Clan. I was raised by my parents and paternal grandmother. My father, Ivan, grew up with his mother, Emma Douglas, in Mnjikaning. My mother, Peggy, grew up with her parents, Mary Moness and Joseph Monette, in Golden Lake First Nation. My identity and self-development are grounded in Odenang or where the heart is—my home and community of origin—Mnjikaning. Mnjikaning is a place in the Great Lakes area of Ontario where two freshwater lakes, Lake Simcoe and Lake Couchiching, meet and where Indigenous people have gathered to fish and trade for 5,500 years. I grew up on the eastern shore of Lake Couchiching and my father taught me how to live with the lake in a respectful way so that we could harvest fish, eat, and make a living selling bait and guiding. The lake was our life. Odenang is the foundation of who I am and who I am becoming.

Indigenous philosophy of life is understood through human and more-than-human interconnectivity. My family and community have a broad kinship system. I am in a reciprocal relationship with the Creation—the two-legged, the four-legged, the winged, and the finned ones, and those that hop and crawl. My family relationships extend beyond blood relations to include sisters, brothers, aunties, uncles, grandmothers, and grandfathers in places on Turtle Island and beyond. The term Weh refers to a sensibility of connection that has gradually developed from a process of heart-knowledge interacting with mind-knowledge. I conceptualize my connection not only with family and community but outward to society, Aki/Land, and the Universe.

In my doctoral work, I describe relationality with: the Four Directions; the level of Aki/Land; the Sky World; and what is underneath or our Ancestry. The following metaphor reveals deep relational knowing of Lands and Waters, "I am the water. I am the land. What I do to the water I do to myself. What I do to the land I do to myself."

Holistic Indigenous Pedagogy

An Indigenous pedagogy model from my doctoral research (Peltier, 2017) is applied here to illustrate Indigenous Knowledge as a learning process of embodied/wholistic engagement in listening and thinking, intuitive reflecting and visioning, experiencing and doing, and relating and feeling. Ways of knowing within an Indigenous Knowledge paradigm and pedagogical process means negotiating my physical world and the unseen and more-than-human reality. Acquisition of Indigenous Knowledge is not a linear progression of acquiring skills, processes, and subject content. Indigenous Knowledge means different things depending on what the listener knows, understands, and experiences and listener interpretation is governed by what they need to focus on. The learning process is self-actualized within a sociocultural context of being a responsible learner and passing on stories.

The Problem

The current assessment practices employed in Canadian schools, which are intended to evaluate students' cognitive understanding of Western knowledge systems, are inadequate for Indigenous learners. Indigenous Knowledge is a lifelong learning process of collectivity rather than a sequential process where the individual acquires specific skills and masters subject matter. Educational theorists identify a problem with specific subject areas in school that compartmentalize education into discrete subject areas. This educational context is a disservice to students when opportunities for understanding the connections between language, location and environment and appreciation of interconnectivity and interdependence with the Earth and nature are ignored. Battiste (1998) has coined the term "cognitive imperialism" to describe the process by which Western thought and language are constructed as superior and Indigenous Knowledge and language as disposable. Assessment beyond the cognitive understanding of Western knowledge systems requires the adoption of alternative assessment practices.

Critical Discourse

This article is motivated by a critical examination of attitudes and professional practices based on Western-European epistemologies that perpetuate the sociocultural mismatch between many Indigenous children's homes and schools. Indigenous learners are often seen from a deficit lens in school, while in their family and community contexts, they are gifted, have agency as learners, and are capable.

Critical discourse ensures the integrity of research and mobilization toward locally developed contextualized assessment practices across theories of Indigenous Knowledge, epistemology, and relational, deep ways of coming to know. Western ways of knowing are closely tied to viewing the world objectively with scientific and rational thought and logic. Assessments in school are designed with Western cultures, expectations, and conceptions of what intelligence is and a holistic range of intelligence is excluded from the generally accepted understanding. Dumont (2006) has described Indigenous intelligence as the intelligence of the mind, the intelligence of the heart, the intelligence of the body, the

intelligence of the soul, and the intelligence of the spirit (p. 4). An essential principle of an Indigenous paradigm is the perception of the big picture or "360° seeing" (Dumont, 1976) for the consciousness of all contextual interconnections. This Wholism is an essential principle of Indigenous epistemology.

Our work as educators is crucial to forge new relationships and heal the negative and hurtful relationship between Indigenous peoples and schooling. A culturally responsive assessment paradigm provides an environment and educational philosophy that leads to Aboriginal student success. Sense of cultural identity and belonging and engagement in supportive relationships are strongly associated with school success of particular relevance for Aboriginal student engagement in school. As new understandings facilitate the resolution of historical trauma and strengthening of healthy relationships, we can collectively promote biophilia (the love of nature) and Indigenous Knowledge and pedagogy. Valuing Indigenous contexts of teaching-learning assessment is motivational for teachers to initiate good relationships with Indigenous families and communities. Being present, observing children's learning processes and achievements goes a long way to build culturally responsive assessment skills and strategies that inform the classroom.

Educators and teachers as researchers face challenges in collaborative relationships with Indigenous communities due to epistemological differences and professional attitudes that stem from the historical subjugation of Indigenous Knowledge. Most educators and investigators are unaware of the sociolinguistic practices and cultural background of the Indigenous student, and learning assessments do not account for what the child knows within the bigger context of family and community. The stories I share in this article offer a glimpse into what it means to experience learning and assessment from the perspective of an Indigenous consciousness. The stories illustrate a lens of seeing the child as capable from within an Indigenous learning paradigm.

The Child is Capable: Case Narratives From Indigenous Community Contexts

The following stories are presented to illustrate how knowing the bigger picture of the Indigenous child in relation to family and community can inform a teacher's journey of creating space for culturally responsive learning and assessment in the classroom. I re-tell these stories in my living of Indigenous community experience and work as an educator and scholar engaging in critical, reflective practice.

The story below is illustrated with a photo (**Figure 2**) taken on a hot August afternoon on Manitoulin Island, Ontario. A six-year-old Anishinaabe child engages in play while waiting patiently to be called to dance in the girls' butterfly category at a competition powwow. The following story is shared to illustrate an Indigenous family and community context where the child has agency and understands responsibility, gratitude, and sharing. The child's innate gifts that set her apart are celebrated. She exudes dignity with personal colors that accent her unique Anishinaabe name, and she moves in a beautiful, light-footed dance, in tune with the rhythmic Grandfather Drum. This six-year-old girl has been socialized to take responsibility for her regalia and to dance her very best to honor Bimaadiziwin—the good life. She has been a part of the powwow circle with her parents since before her birth and has been immersed in powwow teaching-learning processes throughout the years. This girl has already achieved status as a champion fancy dancer within what is referred to as "the powwow trail." The young girl knows that once called, she will have 2 or 3 min to enter the dance arena before the drum sounds and the singers render a competition song for her to show her stuff.

From the photo, we can appreciate the young girl's understanding and dedication to the powwow schedule. She busies herself in imaginative play and shows awesome creativity. Scripts from familiar places and activities play out as she creates figures and performs actions with the rocks and sticks. At the same time, her listening and attention to what is happening around her do not waver so that she does not miss being called to dance for the people.

This young child looks after every part of her regalia, being careful to sit on a blanket, always watchful of her beadwork and feathers so as not to lose anything. Her beautiful powwow regalia has been handmade by her aunties and the patterns, symbols, and colors reflect her unique identity and home. Some of her items are cherished gifts from supportive community members. When the powwow is over, she packs up quickly and accounts for every aspect of her regalia, intentionally placing everything neatly in her suitcase. If her moccasins are damp from dancing on the wet grass, she makes sure to avoid ruining them. The girl later removes them from the suitcase until they dry out and she responsibly packs them again. She has learned from experience that arriving at the powwow with no moccasins interferes with her chances of placing in the top three dancers within her category and being awarded a significant amount of money.

This young butterfly dancer understands good relational ways of Being that include gratitude, sharing, and accountability. She has earned a lot of cash over the years at powwows. She is happy to share with her siblings and friends at the food vendor booths, and she saves up to purchase special handmade beadwork and embellishments for her regalia from the powwow trade booths. Occasionally, she contributes gas money for travels far and wide on the powwow trail with her family.

A teacher who knows a child's engagement in Indigenous Knowledge processes and appreciates the expanse of their knowledge, skills, gifts, attitudes, and community contributions from a Wholistic lens and centers relevant assessment and inclusivity in the classroom. Teachers can create performative assessment tasks, self-assessment opportunities, and group-, family- and community-inspired inquiry projects and portfolios to highlight the relational knowledge of the child beyond the confines of subject area book knowledge.

My children are my teachers. I share a third story below about my son, Ashkidebekegiizis (Vincent), as shown in **Figure 3**. At age eight, he embodied Indigenous ways of knowing and a relational way of Being. His classroom teacher had no awareness of the breadth, depth, and rigor of the Indigenous Knowledge systems he could masterfully navigate alongside Lands, Waters, family, community, and the more-than-human world.

FIGURE 1 | Pounding dry fish at a food harvesting camp (photo credit: Sharla Peltier).

FIGURE 2 | Champion dancer waiting to be called to the powwow arena (photo credit: Sharla Peltier).

As a boy, Ashkidebekegiizis participated in the harvesting and preserving of fish with us every year, and by the age of eight, he understood his relationship to Land/Aki and the seasons, the fish, lakes, and our family. How human relationships with Place are understood and experienced ties directly to the relationships that teachers-learners have with each other. My son's land-based learning began when I carried him before he was born and it continued when he was an infant in the cradleboard where he was at the center of everything we did as a family. In his early years, Ashkidebekegiizis came to understand the relational ceremony, natural law, and ethics around fishing.

We plan before we set out; we set out with intention and focus so that we do the work of preparing ourselves, the nets, fishing rods, and boat with purpose; we acknowledge our relationships

FIGURE 3 | Preserving fish in the smokehouse (photo credit: Sharla Peltier).

and interdependence with all things natural; we speak our truth to the waters and fish with Asemaa/tobacco in our left hand, closest to our heart. Nothing is taken for granted. We state our need to travel safely and obtain enough fish to feed our family today, and we acknowledge and speak our gratitude to the lake and address the winds, asking for prevailing winds that are mild for safe travel on the lake and good setting/gathering of the nets, and we speak and sing to the fish so that our harvest is bountiful to feed our family.

Provocation for Reflexivity in Praxis

In line with story tradition cultural practices, the stories in this artic;e are "given away" with the intention that the details are pivotal for educational practitioners and policymakers to generalize to their world. The power of the story for educational transformation is evident in the provocation of things for the reader to notice, reflect upon, and do.

The stories shared in this article about Anishinaabek children immersed in family and community activities, illustrate Indigenous teaching-learning traditions, and stimulate queries around classroom learning assessments. "If the classroom teachers are unaware of the children's gifts, aptitudes, skills, and achievements, how does this limit assessment of learning?" The stories can be considered to live on in the ongoing, intergenerational retelling and through the forthcoming oral tradition in families and communities passing on knowledge. Stories like these inform ways forward in the development of culturally relevant teaching-learning in school and assessments that are informed by the bigger social contexts of community and family engagements in culture-language revitalization. Students' sense of cultural identity and supportive relationships are strongly associated with school success of particular relevance for Aboriginal student engagement in school.

Imagining Forward

As educators decolonize and indigenize learning spaces, valuing the expertise that the Indigenous community brings to the classroom is raised as teachers work to strengthen and sustain community ties and partnerships. Of key importance is the unique, local context of learning. As educators, professional practice is steeped in valuing the Indigenous child's gifts and linguistic, cultural, social, historical, and political experience and assuming the role of the learner in the Indigenous education context to develop understanding about the wider Indigenous paradigm of the home-school-community-nation.

"How do educators engage in the assessment of Indigenous learners in culturally responsive and respectful ways?" This remains to be seen. A myriad of recommendations are evident from the educational literature. Indigenous, Metis, and Inuit lifelong learning models were introduced in a Canadian Council on Learning report (2007) and applications to the assessment of Indigenous school-age children are evident. The key attributes of Indigenous learning should be accommodated and evaluated within Canadian schools in efforts to eliminate Eurocentric bias from schools, ensuring that Indigenous ways of knowing and being are equitably represented. For learning to be relevant to Indigenous people, it must be rooted in language and culture; experiential in nature; Wholistic; community-based; lifelong; spiritually oriented; rooted in a combination of Indigenous and Western knowledge.

Johnston and Claypool (2010) have investigated measures of learning success as identified by Indigenous peoples. The researchers presented a multi-method assessment model and posited that norm-referenced testing should be combined with other authentic forms of testing so as to accurately evaluate the redefined learning objectives as identified by the Canadian Council On Learning (2007). The work of Gardner (1983) regarding multiple intelligences is called into play to guide learning evaluation techniques that are capable of evaluating multiple forms of intelligence and ways of knowing that extend beyond what the Western world has traditionally conceptualized as valid knowledge. "Norm-referenced tests remain a valid means of testing for empirical knowledge germane to Western culture. They recommended a search for other "authentic" assessment practices to accompany norm-referenced evaluations that are capable of testing for knowledge relevant to indigenous peoples and capable of accommodating indigenous teaching and learning techniques" (Claypool and Johnston, 2010, p. 127). The authors recommended developing a multi-method assessment model through the relationships with the child, parent(s), sibling(s), extended family, elders, community members, peers, teachers, administrators, and other professionals. Such an approach is relevant to the locale and assessments are developed to suit specific community contexts.

The reader is invited to return to the case narratives shared in this article. A teacher's journey of gaining appreciation and coming to know the gifts of the Indigenous child and the bigger picture of relationality, embodied learning, and cultural teaching-learning-assessment traditions with family and community informs educational praxis for culturally responsive assessment in the classroom. Initiating relationships and building a supportive network take time and commitment and observing and listening are most important. All teachers, Indigenous and non-Indigenous, do not do this work on their own.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/Supplementary Material; further inquiries can be directed to the corresponding author.

ETHICS STATEMENT

Written informed consent was obtained from the individual(s) and legal guardian/next of kin for minor(s) for the publication of any potentially identifiable images or data included in this article.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor to this work and has approved it for publication.

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Tree Stories: Assessment Making as Relationally Respecting, Dynamically Listening with Care, and Inviting Celebratory Journeying

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Through my recent Master of Education journey, I am becoming increasingly awake to the ways in which I value "place" when thinking of my autobiographical beginnings, teaching, learning, and assessment making alongside children. As a forest and nature kindergarten teacher in a K–6 elementary school, who is facing increasing class sizes, classroom complexity, parental anxieties, and children's wide-awakeness to all these influences, I worry about early childhood development and the knowing that each of us, from an early age, holds embodied experiences which guide us and either nurture or hinder our development. I see the importance of co-creating environments to invite children, parents, and educators to think collaboratively, and emergently to come to learning and knowing and assessment making. Basso (1996) writes, "relationships to places are lived most often in the company of other people, and it is on these communal occasions – when places are sensed together – that native views of the physical world become accessible to strangers" (p. 109). We teach and learn in social contexts across time and in the world of formal education on landscapes called schools. However, my hope is for schools to be thought of in a broader context, which bends and sways as we ground ourselves in experiential pedagogies (Dewey, 1938). Pedagogies which are always in the midst and in the making. Narrative beginnings matter. With this thinking, we become awake to knowing that our collective approaches to the education of young children will significantly affect future leaders and the environment which sustains us. My current research puzzling for the purpose of this special issue is as follows: in what ways can land-based, place-based, emergent, and playful experiential learning approaches in school outdoor settings increase child, family, and teacher collaboration? What role might assessment making have in this collaboration and the child's learning? Do the stories that children come to live and tell through this collaboration and their dynamic interaction with one another, their families and teachers, and more-than-human beings influence the lives they are making in the present in their early years of schooling i.e., K–3, and into their futures?

Keywords: assessment making, co-curriculum making, place-based learning, land-based teaching, emergent curriculum, experiential learning, life-making, narrative inquiry

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BEGINNING WITH THREE TEACHING MOMENTS

"Mrs. Brown, Mrs. Brown, Mrs. Brown," we hear in the distance as educators, children and families gather in our school field. But where is it coming from, we wonder? The call repeats. I travel towards the voice and look up to the highest branches that might be stable enough to hold a four-year-old. I wonder—how did this child get there? Are her parents close by? Why did she leave the group? How long has she been there? Will she hurt herself? What will my response be? How can I stay present, encouraging, and ready to listen to the next part of her call? I arrive at the bottom of the Scots Pine tree and as I gaze up through the branches, I spot a smiling face. No words come from her tiny perch, but she speaks louder than I could ever imagine through her expressive, joy-filled fix on my eyes. A bird's eye view! How lucky and how free and how brave she is. I imagine what it might feel like as I move closer to inquire, alongside . . . (September 2020 Personal Journal Entry, Tree Story ~ Part One)

"You should see what I see!" we hear a voice announce with elation. As we gaze upward, we can barely glimpse his feet. We move closer, under the Ponderosa Pine, until we are nose-to-nose with the needles, cones and within range of our climbing friend—in case he has more to say. We count the needles in each bundle. We study the texture of the cones as they present themselves from sticky to bumpy to poky. We smell needles, cones, the ground, the sky, each other, and we giggle. We wonder about how the Ponderosa got its name. We research, collectively creating theories to be considered and to further wonder with. Is this cone the same as the cones from the neighboring Scots Pine? Is this cone the same or different from Spruce Tree cones? What about Tamarac Trees to the West of our field? Do the Tamarac Trees, with their soft needles that we love so much, have cones? We run to find out! (November 2020 Personal Journal Entry, Tree Story ~ Part Two)

During the Covid-19 Pandemic, with school shifted to "at home learning," a parent sends me a message. The online assignment is to engage in a sit-spot in nature. She shares that her whole family participated: her husband, daughter, and son. Her son, who is in kindergarten, invited them to "his tree hangout spot" to engage in this experience. I pause and wonder about what tree she might be referring to. I think back to when I was alongside this child during in-person learning. He was the child who did not want to climb trees because, he said, he was afraid of heights. His Mom shares a photo of her son climbing up into "his tree." She scribes his words for the assignment that invites him to use his senses: "I see grass, moss, branches and needles. . .I smell fresh air from the rain . . . and hear birds." When asked how the place feels, he replies, "comfy!" (June 2021 Personal Journal Entry, Tree Story ~ Part Three).

These moments unfolded alongside kindergarten children during a year of teaching and learning. Inspired by my own personal experiences of being outside in nature, I think deeply with moments like these as part of my teaching practice. The collective stories of children and teachers—our shared narratives—invite relationship, experiential connection, and creative possibility as we learn and grow together. These are a few of many moments that encourage me to wonder about the multiplicity of ways of knowing that nature and time on the land invites. This wondering, alongside my genuine excitement and eager anticipation that is shared through dialogue within a school community, makes me consider how these types of moments might lead to assessment making (Murphy et al., 2012). Creatively playing with the idea of assessment, storied knowing can invite and lead educators to reflectively consider curriculum as an animated life-making process. This emergent programming that moves with children's passions and interests is dynamic and exhilarating in nature. When educators approach each day with awe, wonder, and anticipation for what could and what might be, there is hope that children will see themselves as active participants in teaching, learning, and assessment that is co-created and always in the making.

NARRATIVE BEGINNINGS MATTER

Through my recent Master of Education (2020) journey, I am becoming increasingly awake to the ways in which I value *place* when thinking of my autobiographical beginnings, teaching, learning, and assessment making (Clandinin et al., 2011) alongside children. As a forest and nature kindergarten teacher in a K–6 elementary school, who is facing increasing class sizes, classroom complexity, parental anxieties, and children's wide-awakeness to all these influences, I worry about early childhood development and the knowing that each of us, from an early age, holds embodied experiences which guide us and either nurture or hinder our development. I see the importance of co-creating environments to invite children, parents, and educators to think collaboratively, collectively, and emergently to come to learning and knowing and assessment making. I find this praxis, which is always becoming and evolving as we navigate uncertainty, to be vital in the troubling times we are facing together. Basso (1996) writes, "relationships to places are lived most often in the company of other people, and it is on these communal occasions—when places are sensed together—that native views of the physical world become accessible to strangers" (p. 109). We teach and learn in social contexts across time and in the world of formal education on landscapes called *schools*. However, my hope is for *schools* to be thought of in a broader context, which bends and sways as we ground ourselves in experiential pedagogies (Dewey, 1938). Pedagogies which are always in the midst and in the making. Narrative beginnings matter. With this thinking, we become awake to knowing that our collective approaches to the education of young children will significantly affect future leaders and the environment which sustains us. My current research puzzling for the purpose of this special issue is as follows: in what ways can land-based, place-based, emergent, and playful

experiential learning approaches in school outdoor settings increase child, family, and teacher collaboration? What role might assessment making have in this collaboration and the child's learning? Do the stories that children come to live and tell through this collaboration and their dynamic interaction with one another, their families and teachers, and more-than-human beings influence the lives they are making in the present in their early years of schooling i.e., K–3, and into their futures?

As I think with my journal entries—Tree Story in three parts—from my most recent year of teaching and learning, I find myself dreaming about our collective and communal becoming at school, with an ever-present seeking to stay mindful to all that is around us. When teaching outside, alongside four, five, and six-year-old children and an inspiring team of educators, I am filled with gratitude and joy each-and-every day. It is moments like these, learning by playing and discovering among and with the trees, that help me to become increasingly awake to who I am and who I am becoming as an educator. Throughout these experiences, I find myself continually wondering about ways to represent children's knowing and learning; representations that the children experience as empowering and that makes visible this intentional process with children, their families, and educators alongside.

As this article unfolds, I show my forward, backward, inward, and outward thinking and place connections (Clandinin, 2013), which I understand as a reflective form of assessment making that holds central for me, questions of my living in relationally ethical ways (Clandinin et al., 2018). I invite you to linger alongside me as I consider the emerging assessment making spaces that the forest invites and as I locate the possibilities in positionality we hold as educators.

THINKING WITH NARRATIVE INQUIRY

As I engage in narrative inquiry, as both phenomenon and methodology (Connelly and Clandinin, 2006; Clandinin 2013), and as pedagogy (Huber et al., 2013; Cardinal and Fenichel, 2017), I think narratively with the three common places of Narrative Inquiry: place, temporality, and sociality (Connelly and Clandinin, 2006; Clandinin, 2013).

Nxumalo (2015), whose interests revolve around pedagogical possibilities while reconceptualizing and resituating place-based and environmental education in early childhood environments, guides me to consider "seeing place as neither simply physical nor easily categorized but rather as a place of complex mutual encounters" (p. 29). With this emerging awareness and sensitivity, I am reminded of Noddings' (1986) ethic of care and fidelity in education. Noddings suggests that in "an ethic of caring—fidelity is not seen as faithfulness to duty or principle but as a direct response to individuals with whom one is in relation" (p. 497). Both Noddings and Nxumalo's thoughts help me to attend to relationships with "an ethic of "responsive attentiveness" to everyday encounters and complexities, relationalities and tensions they bring into view" (Nxumalo, 2015, p. 23). As I am considering this awakeness to tensions and the value of being in relation to those I am alongside, Caine and Steeves (2009) ground me and remind me of "how difficult it is to stay in relation" (p. 1). As an educator, it is vital for me to stay awake and accountable to the challenges that present themselves and to consider my stories that guide and shape who I am and who I am becoming. To stay awake, I imagine the metaphor of a landscape that is full of bumps, turns, and valleys to help me to soften my gaze. I strive to use my *peripheral vision* as Mary Catherine Bateson (1994) might suggest, as well as my *imagination*, as Maxine Greene (1995) might guide me, to embrace the young learners with whom I am in relation with openness and active, mindful listening.

To express what I am coming to know, as well as thinking through the lens of narrative inquiry, I choose to embrace experience as "happen (ing) narratively" (Clandinin and Connelly, 2000, p. 19) and I am honouring "narrative inquiry (as) a way of understanding experience" (p. 20). This embodiment of narrative inquiry encourages me to stay present and embrace ideas of always intentionally being in the midst of learning[1]. This way of being inspires me to understand that I am always becoming as a person in the world, continually and purposefully inquiring into teaching and learning as a relational endeavor.

Through my ongoing learning, I see that the more I tell stories and the more I wander with them, the more I am awakened to possibility when considering the storied moments that matter. These stories help me reflect on my own narrative beginnings and my current work as a narrative inquirer. As I think with a few of my own storied life-making moments, which make up my personal practical knowledge (Clandinin, 2013), I am inspired by Maxine Greene as she suggests the idea that we can "invent our narratives" and thus "determine the direction of our lives" and the notion that we can understand our lives as a "quest" (Greene, 1995, p.75). I am reassured by her knowledge that "Seeing our lives as quests opens the way to our also seeing them in terms of process and possibilities" (Greene, 1995, p.75). Greene's sense of "imagination" is vital and alive. It connects me with the world of being alongside children. It pushes me to listen to and foster their imaginations, as well as my own. However, as Greene also posits, "the role of imagination is not to resolve, not to point the way, not to improve. It is to awaken, to disclose the ordinarily unseen, unheard, and unexpected" (Greene, 1995, p.28).

FORWARD, BACKWARD, INWARD, OUTWARD, AND PLACE CONNECTIONS

As I inquire into my Tree Story Journal Entries, I consider the past, present and future as a cyclical movement highlighting people, places, things, and events. Through Part One of the story, I wonder about the young girl and her bravery, independence,

[1]Clandinin (2013) suggests that narrative inquiry occurs when we are in the midst of lives. For me, it is living alongside institutional narratives (large school division following provincially mandated curriculum) which shapes my attending to "past, present, and future unfolding social, cultural, institutional, linguistic, and familial narratives" (p.43).

and ability as it relates to who she is and who she is becoming on her home landscape. How has she grown upon the land? I am drawn to ask her parents if they live in close proximity to many trees and if they personally feel a connection with the natural world? As I ask the young girl, she tells me that she has lots of trees and animals where she lives. Together, we chat about the tree she is climbing. We discuss how much love and care she shows the tree as she carefully navigates climbing up and down the branches. As I listen to her tell me about the land where she lives, I share about a tree where I live that I think she might love. I describe the light orange bark that flakes off when a squirrel balances to reach a pine cone out on a limb. Through our sharing exchange, I wonder with her about how she might be able to reach a branch on a tree that is taller than her, like the one in my backyard. She leads me to a tree and scales it with the efficiency of a porcupine! Looking up at her small face peeking through the branches, I suggest we document her climbing this school year. A photograph of her in every tree that she climbs. She asks me if I can share the photos with her parents; I do and dialogue blossoms, relationality blooms! As I imagine the future, inquiring into this story with my co-educators, we wonder about inviting other children to climb, observe, and wonder together with us about the trees and climbing and being on the land. We talk about all of the animals who love trees. We imagine, share thoughts, hypotheticals . . . stories. This leads us to the concept of perspective. When these creatures peer out from the high branches, what do they see?

When Tree Story Part Two emerges, we are a few months into the school year, and a young boy, often too busy running and moving, is now up a tree and exclaiming his elation at what he notices. We wonder if perhaps he has observed his peer, on her photographic journey of the trees she climbs, and is inspired to explore in her footsteps. We also wonder if he just stumbled upon the opportunity and before he knew it, he was up a tree. He shares that he had never climbed a tree before. We ask him to describe what he is seeing at that very moment. He tells us about many nature beings he sees: birds, trees, sky and he notices our school as well. Looking forward, we wonder about whether or not he will continue to climb trees. Might he seek them out? Might he crave their perspective? Might he share his climbing with others? Will he look at the trees near where he lives in a new way?

Collectively, as a class community, we decide to read the story *All the Places to Love* by Patricia MacLachlan (1994). Thinking together, children and educators alike sit in a circle and pass around a talking stick to encourage each other to listen and pause within the storied places. Trees, hills, creeks, and forests fill the circle and before we know it, there are familial connections being shared. Hopes and dreams and feelings are emerging. As one person listens to the next, it is clear that deep attending to each other's stories is occurring and children are revising and shaping their ideas, thoughts, and preferences by building on to what another has said. Thoughts build upon thoughts and as we honour each other's thinking, we move forward.

As we build curriculum around our stories, co-creating and co-planning forward, we begin to pack our backpacks and wagons to bring along what we need to be in dialogue with the children who are sharing their places to love, with vulnerability and passion. We pack and prepare for each day ahead with open-ended possibilities and strong connections to passions, interests, and wonders! We make a Bird Place invitation with binoculars, maps, bird books, tree books, a blanket, paints, paper, scissors, string and burlap; we make a Penguin Place invitation with sleds, pylons and signs for up and down with arrows for children to organize to keep safe on any hills we might encounter; we make a Bear Place invitation with bear story books, stage curtains on ropes to string from trees, forest animal masks, musical instruments; we make a Mud/Snow Kitchen with pots and pans, spoons and ladles, colanders and sieves, to prepare food in case we are hungry as we travel; we make a Coyote Place with animal track and animal scat books, magnifying glasses, study jars, ropes for balancing, a parachute for running with, and rings for swinging and leaping from. These places, played upon and grown through storytelling, nurture our collaborative interaction with a constant reaching for knowing and being in relation.

As we travel through our well-loved places across the winter, we bring our backpacks and sleds, setting up wherever we decide to camp out each day. Sometimes we stop at Porcupine Forest, other times Beaver Forest, the Lookout, the School Field, Rainbow Gulley, Moon Forest, Hidden Valley, and more. Wherever we go, a constant emerging invitation exists as we share stories in print, imagined, and orally. In this relationship, we learn about the multiplicity of who each of us is becoming as humans in the world. We engage in early literacy and numeracy with real world connections, empathy for each other and love, respect and care for what each of us is coming to know in our own time. Through our experiences we creatively embody personal and social responsibility, citizenship, identity, environment and community awareness, all parts of the mandated Alberta Education, (2011). Through this creative embodiment, we are assessment making, co-composing our days and in turn our lives in emergent meaningful, organic, and thoughtful ways. In this deeply connected process and relationship, each child, educator, and parent is able to think with our curriculum and discuss what we are each excelling at, working on, and nurturing through researching, studying, and practicing in hands-on experiential ways.

REFLECTIVE PONDERING INWARD

In coming to understand the possibilities of representing children's knowing and their learning as a dynamic process, with families and educators who are able to join in harmonious ways with care, kindness, and openness to what may or may not be, I am reminded about my own tree moment when I attended a conference in Oakland California.

Just prior to engaging in a Spring Independent Study Course with Drs. Janice Huber, Trudy Cardinal, and three MEd colleagues (who had long been part of my master's response community), I traveled to Oakland, California for the *Children and Nature Network 2019 International Conference*. This experience invited me to further consider who I am and who I am becoming alongside a long-time teaching colleague, Val. She invited me to travel with her and share our imaginings forward to

help us collectively shift away from being complicit within school cultures, those that ooze dominant narratives and interlocking systems of harm which threaten to swallow our joy and seeking of possibility in community. Val and I had also collaborated with a dear friend for over a decade, Carol-Ann (no longer with us in body, but definitely in spirit), a teacher and my mentor, who was grounded in her beliefs of letting the children lead the way. I live by her words, "Here is my hand. Take it if you need it." As I have been alongside children, ever since Carol-Ann inspired me with her wisdom, I have heard time and again my own voice echoing those guiding words. I carry them with me and believe they invoke a shared sense of empowerment, bravery, and also security within the experiences I have with each learner I am alongside.

While at the conference, one of the sessions led us to a Redwood grove in the land of the Chochenyo-speaking Ohlone people. Afterwards, Val and I were lucky enough to linger with the session leader, not of Ohlone ancestry but one who deeply respects the people, land and stories, for dedicated time and space to get to know a tree. Inspired by our deep dialogue and experiences in the grove and during a quiet and reflective moment back in our hotel room, I wrote this letter:

> Dear Tree,
>
> Hello! I did not know you yesterday. Today I feel we have a connection. Thank you for beckoning me to be alongside you. For this I am truly grateful! Feeling engulfed with a fullness of gratitude, I want to linger. This day, our first meeting, I sense your invitation and reach for connection through mind, body, and spirit.
>
> What does your spirit say? I feel it! It is patient and kind and allows me to venture up and down your trunk, with inquiry and wonder. My friend Val is with me. She, in spirit, carries our friend Carol-Ann too! We are alongside a new friend, our session leader. She teaches us to ask you for permission to feel, smell, and taste your presence.
>
> We have been introduced to you in this place and as we use all of our senses you keenly invite us in. Thank you for your welcoming. My friends and I feel your smile. This moment in time matters to me! Did you know it would come some day? Did I? Why does that matter? Have we always been preparing for this uncertainty?
>
> Always becoming, always in the making, always present to possibility,
>
> Donna

In Oakland California, across a 5-day immersion and exploring storied moments like my own above, we, like Keith Basso (1996), noticed that "(our) perception of the tree has changed" (p. 120). In that moment, I felt inspired to wonder about the many "human events, consequential happenings, and memorable times" (p. 120) of all who have hugged this particular tree and her tree friends in this Redwood grove alongside Lake Merritt, adjacent to inland Lagoon on Ohlone Territory.

Upon my return to Edmonton and in dialogue with my response community, I shared this profound feeling of awakening to my connection with a tree in Oakland. In an environment of co-creating, my colleagues collectively agreed and wondered aloud, Donna, what if you change this "love letter" to read "Dear Child" instead of "Dear Tree?" I tried this. Immediately I began to notice the beautifully complex, plural ways we are in relation as living beings in the spaces we find ourselves in.

Dear Child, (I began) and as I read on, I could see how I was inspired by my deep connection to land and trees, and how I could truly begin to articulate that same strong connection to each child whom I am alongside. By writing *Dear Child,* I was able to acknowledge exactly how I feel when I first meet the young learners each year. Always, there is an invitation to be in relation with stories that have come before us and now invite open and caring connections. This letter, this invitation and its care, keeps me hoping that together we can grow a way forward on a journey across a school year and beyond, together.

PAUSING ALONGSIDE THIS MOMENT ON A JOURNEY

When I stop to think of the Tree Story in three parts, connecting it to assessment making as a way of considering what matters; why it matters; and considering how this knowing for now inspires us to move forward together, I think of the shared focus to learn and attend to our relations, with each other and the places and beings we engage with. I see it as an example of an ongoing invitation to assessment making with each child—individualized, personalized, and full of focus, intent, and meaning with room for emergent dips, turns and dives to other passions, interests, and wonders. Each storied tree moment in dialogue invokes curiosity and a different meaning for each child. A different learning journey each time. Together, we are co-curriculum making (Connelly and Clandinin, 1988) with intent, deciding to share our learning with children, educators, and families by moving forward with communication as a community. Today, I wonder about the continual possibilities to articulate the passion-driven knowing within each child, their family, and educators in Forest and Nature Kindergarten to further each of our collective knowings in emergent, honouring, joyful ways.

In Tree Story Part Three, I linger upon the details of how the child and his family came to dialogue about "his tree." What does that mean for him, his family, and me as an educator through the lens of an assessment making story? To delve deeply into this wonder and invite ways to make each child's learning increasingly visible for themselves, friends, family members, and co-educators, we spent time thinking alongside the story book *Picture a Tree* by Barbara Reid (2011). When asked to *picture a tree* by drawing it, the child in the Tree Story Part One was drawing hearts because, she announced, she loves hearts and "I love trees!" For further invitation, we read aloud *Trees: A Poem* by Harry Behn, illustrated by James Behn and Endicott, (1992). Each child,

alongside their peers, was able to think with the words of the poem: "Trees are the kindest things I know" (p. 1). Guided by an invitation to write a letter to a tree, the child (in Tree Story ~ Part One) selected a tree and began "Dear Tree." She stopped, smiled, and dictated, "I love that I can climb you." When asked what else she would like to say in her letter, she said she had said it all and signed her name with love. When I reflect on this moment as an educator and think forward to future invitations for learning to deepen and further each child's experience, I am seeking ways to open communication and joyful perspective-making with others. Through moments of shared read-alouds, wondering with each child, family members and educators, we may be able to collectively think backwards to the moments that may have led up to each child's passions and interests (in this case, to trees). Perhaps we may explore how further experiences in nature may ensue and strengthen each child's connection to what matters on our collective learning journeys in *school*.

This reflective story-thinking may become a way to support children to move confidently in their own ways of knowing, being, doing, and relating as they relay their thinking. What a beautiful, forward-looking imaginary this could be in life making and assessment making! Assessment making, which is internalized and embodied by each child—as open-armed, attentively listening, tree-climbing learners and knowers in the world. On this path, I am inspired to think further with these stories and openly imagine through each child's passionate learning and journeying, which will continue to emerge alongside our collective openness and becoming in the world.

PUZZLING REFLECTIVE THREADS

In the process of assessment making and participation, the autonomy of children's minds, along with their whole beings and identities being respected, honoured, and nurtured is of the utmost importance, as is their active engagement in their own becoming. As I yearn to make sense of assessment making in meaningful ways as an educator, I am seeking possibilities to articulate and invite families, educators, and administrators to embrace assessment making as a relational and ongoing uncovering through dialogue, a process of living. In my writing as a practicing teacher, reflecting on the theme of this special issue, I hope to have highlighted three resonant threads across my inquiring: Relationally Respecting; Dynamically Listening with Care; and Inviting Celebratory Journeying. I see these as important ways to think deeply and imaginatively alongside Mary Young's (2005) wisdom, shared with me as an introduction when I was a participant in the Winter 2019 Course at the University of Alberta called Assessment as Pimosayta - Honouring Children: Indigenous and Relational Approaches,

> "Like you said *Aanung*, "*pimatisiwin*, that is what it is all about." For you *Niin*, it is about being "a good person" and I respond by saying, "I am going to try to learn to walk in a good way." Both of you taught me that, and if we achieve that one small step towards all of us walking in a good way, both *Anishinabe* and non-*Anishinabe*, then we have accomplished something we didn't see at the beginning of our journey nor could we have even imagined. . . . *Kwa yuk ka kwe pimosayta*. Let's walk in a good way. (italic in original, p. 179)

Relationally Respecting

Ermine (2015), Cree philosopher and educator, articulates the notion of "dancing particles," as a way to consider encountering energy and honouring movement as we journey in and through our "experiencing.'" How we encounter each other matters! We feel another's aliveness and in turn, consider our own responsiveness as a way to actively animate another to act. Because of another's actions, we may send sparks of energy to the in-between-spaces of learning, growing, and relation. This sparking of energy invites a harmonious and joyful way of being in the world, as educators listen deeply to children and cherish their familial and community stories. With keen interest and energy reciprocating their relationship, travelling alongside with loving perception (Lugones, 1987), care and nurturing, and honouring creates the grounds for sparks to fly upwards and beyond in a playful dance of possibility! When children and educators run eagerly to learn more about an idea (as in Tree Story ~ Part Two), then both are fully immersed and engaging in a collaborative and co-created learning moment, inspired and ignited by each other's familial and community stories that are deeply woven into their narrative beginnings. Anything is possible at that very moment as teaching, learning, relations go hand in hand.

Dynamically Listening With Care

Elder Gloria Laird, a Metis Elder who came alongside us during our Assessment as Pimosayta course, invited us to send light and love to the children whom we were alongside. I listened as she talked about her own Residential School experiences and in turn, intergenerational trauma. She emphasized how important it is to support children, and educators, to say the words, "Today I will love myself and tomorrow I will love myself even more." Elder Gloria shared this wisdom to intentionally start each day with, in a place of peace and therefore, in support of children's abilities to feel calm and secure. She guided us to truly pause and listen to children. She told us to "allow children to teach you and open your heart to a totally different world view" (Teachings from Elder Gloria Laird, 2019). This reminded me of the importance of Noddings' (1986) work as she talks about genuinely enacting care for another. She refers to this as "natural caring—the sort of response made when we want to care for another" and how this way of being "establishes the ideal for ethical caring, and ethical caring imitates this idea in its efforts to institute, maintain, or reestablish natural caring" (p. 497). I am also reminded of Paley's (2015) presentation in which she talks about taking time as a teacher to record

children's narratives, listening to children to support their ability to establish their identities in playful engaging ways. I aspire to this type of listening and sharing with parents through visual images, photographs, and learning stories,[2] which involves pedagogical writing that upholds children's and families' voices/knowledge, further inviting familial and community narrative connections.

Inviting Celebratory Journeying

In conclusion, as I bring forward this final thread in reflection of my current puzzling for this special issue, I am drawn toward expressing my thinking with and alongside the teachings of Elder Stan Peltier, who also orally shared his teachings during my participation in the Assessment as Pimosayta course. He spoke to our classroom of educators about teaching as a dynamic journey: "Just as the Earth and Solar System are always in motion, we are always in continual motion" (Teaching from Elder Stan Peltier, January 2019). Elder Stan shared his knowledge of Seven Grandfather Teachings and provided permission for us to write about and teach these. As I aspire to internalize these teachings, the English words to represent each teaching remain present before me: Love, Respect, Honesty, Bravery, Humility, Truth and Wisdom. As I think with all three parts of the Tree Story, I see all these words resonate deeply within how I continue to interpret what I witnessed during those moments of teaching and learning. Questions jump forward as I consciously think and accept responsibility for nurturing and guiding young learners on a mutual journey. Together, we navigate what Elder Stan might suggest is "wisdom in holistic ways." Additionally, Elder Stan shared further teachings by describing the Anishinaabe word/concept of "Akinoonage," which means "to teach." In those moments, while at first sharing Anishinaabe words, I then concentrated on the English contextual interpretation of the words — "action," "animate," "acknowledg (ing) complexity," and "in the realm of all living things." For me, these words hold the spirit of emergence, ongoing creating, and learning. This spirit exists in the Tree Story, where the classroom community, inspired by familial learning, collectively shares and decides what to carry with them in their backpacks, wagons, and sleds as a way to continue to invite action-based experiential learning. Through our collaborative discussions of place, travel, exploration, and creative methods, based upon the complexity of varied children's passions and interests, experiences of deep growth were sowed. As I attend to Elder Stan's teachings, I think with this: "To teach is to direct the learner where to find knowledge, which can be or is to be understood according to their own intellectual acumen. The learner is NOT (said with emphasis) *told*, but has to reflect and *arrive*, hopefully to an individual personal perspective, or even a consensus type acknowledgement of perceived understanding" (Teaching from Elder Stan Peltier, 2019).

In summary, for now, and thinking with my ongoing learning, I am inspired to continue to be ever present and available to all who I am alongside. Whether I am with a child, parent, co-educator, elder, knowledge keeper, professor, friend, and tree, I will endeavor to listen deeply and make spaces for emergence and possibility. While I continue to feel steady pressure to be accountable to larger institutional narratives as a way to demonstrate the "progress" of children, I will continue to seek wisdom from the children, their families and communities, the trees, the places we enter and share, and the unfolding emerging passions and interests of those who gather together on "school" landscapes. In this time, uncertainty is what we have and although it is vast and at times overwhelming, it invites imagination, creativity, and wonder. How exciting and joyful the unknown can be! What will happen today? What will happen tomorrow? Together we will discover next steps, inquiries, in depth learning and knowing as we sit with each other's stories and join in our emergent and collective thinking as a "school" community and beyond.

Roberta MacAdams Pure Joy Video 2021

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author.

ETHICS STATEMENT

Written informed consent was obtained from the individual(s), and minor(s)' legal guardian/next of kin, for the publication of any potentially identifiable images or data included in this article.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: Patel, Raj. [Orange Fountain]. (2021, March 11). Roberta MacAdams Teaser Pure Joy [Video]. YouTube. https://youtu.be/uw-qKv-b8Pg

[2]CarrandLee (2012) in their writing and workshopping about learning stories make the connection between sociocultural approaches to pedagogy and assessment and narrative inquiry

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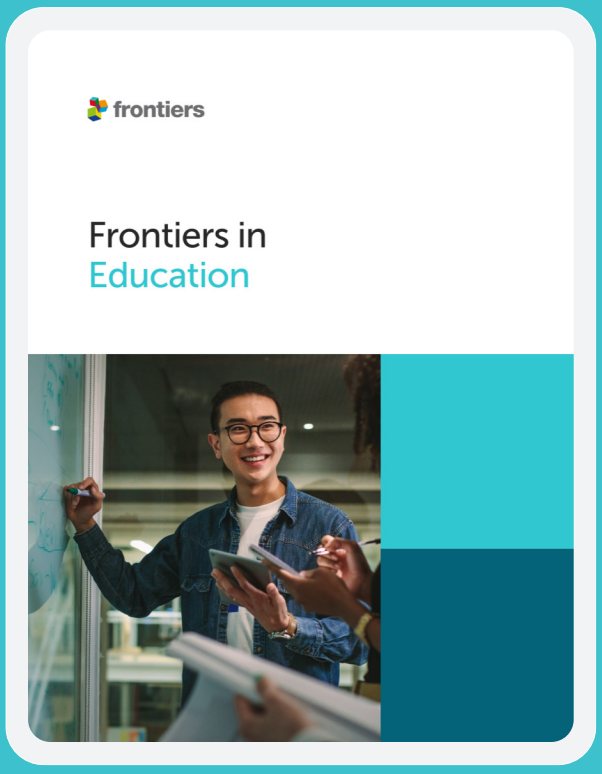

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