

THE IMPORTANCE OF CONSIDERING THE CULTURAL CONTEXT WHEN EVALUATING L'NU CHILDREN'S EARLY YEARS DEVELOPMENT OUTCOMES

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Abstract

L'nu (Mi'kmaw) children's cultural education is often merged with or overridden by westernized methods of teaching, learning, and assessment in Canada's school systems. An Etuaptmunk/ Two-Eyed Seeing (E/TES) approach from an Indigenous, and in particular a Mi'kmaq, worldview honours traditional knowledge and teaching while recognizing that we work and learn in systems that originate from westernized points of view. E/TES allows alternate ways of knowing and being in the world through a co-learning process that brings Indigenous worldview and western perspectives together. The education and health outcomes of L'nu children are often not on par with those of non-L'nu children, perhaps suggesting that westernized assessments inaccurately capture education and health markers without cultural context. From the view of two L'nu educators, this paper aims to shed light on the experiences of L'nu children as they enter the education system in their early years and offers a differing perspective for viewing development, school readiness, and assessment.

Keywords: Etuaptmunk, Two-Eyed Seeing, Education, Mi'kmaq/w children, Development

Résumé

L'éducation culturelle des enfants L'nu (Mi'kmaw) est souvent combinée à ou supplantée par les méthodes d'enseignement, d'apprentissage et d'évaluation occidentales dans les systèmes d'éducation du Canada. Une approche Etuaptmumk / « à deux yeux » (E/TES), issue d'une vision du monde autochtone, et plus particulièrement Mi'kmaq, fait honneur au savoir et à l'enseignement traditionnels tout en reconnaissant que le travail et l'apprentissage se font à l'intérieur de systèmes qui ont pour origines des points de vue occidentaux. E/TES permet d'alterner les formes de savoir et d'être dans le monde par un processus de co-apprentissage qui rassemble les visions du monde autochtones et les perspectives occidentales. Les résultats en éducation et en santé pour les enfants L'nu ne sont pas encore sur un pied d'égalité avec ceux des enfants non-autochtones, ce qui suggère peut-être que les méthodes d'évaluation occidentales ne saisissent pas bien les marqueurs d'éducation et de santé sans le contexte culturel. Du point de vue de deux éducateurs L'nu, cet article cherche à mettre en lumière l'expérience des enfants L'nu lorsqu'ils et elles entrent, à un très jeune âge, dans le système d'éducation. Il offre une perspective différente pour prendre la mesure de leur développement, de leur niveau de préparation pour l'entrée à l'école, et de leur évaluation.

Mots-clés : Etuaptmumk, approche « à deux yeux », éducation, enfants Mi'kmaq/w, développement

Introduction

The trajectory of a child's education can be significantly altered based on labels they receive during their childhood development. These labels, whether positive or negative, can be carried with them throughout their lifetime. Indigenous children are consistently portrayed in westernized education systems as not measuring up academically in comparison to their non-Indigenous peers (Parkin, 2015), and yet the narrative rarely includes a thoughtful discussion about the cultural considerations of evaluation. We are two L'nu (people of the same language and community) educators who work in different areas of education, but we integrate cultural knowledge and Etuaptmumk/Two-Eyed Seeing (TES) into evaluation and learning for Indigenous students.

My name is Katie Gloade and I am a L'nu educator and counsellor. I am a PhD candidate in the Faculty of Health at Dalhousie University. With the majority of my professional experience teaching and

supporting youth in a high school setting, I have been exposed to the direct and cumulative impact that a child's early years have had on them physically, emotionally, mentally, and spiritually. Anecdotally, I have observed the threats to L'nu students' short- and long-term wellness as a result of using western derived evaluations to measure their health and development. In addition to observing many negative impacts, I have also witnessed a blossoming of students when they are wholly embraced by a curriculum that acknowledges alternate ways of knowing and when they have been made to feel capable and accomplished based on their ontological and epistemological views of the world.

My name is John R. Sylliboy and I am a researcher on the Aboriginal Children's Hurt and Healing Initiative and a PhD student in the Department of Integrated Studies in the Faculty of Education at McGill University. I have worked with L'nu and other Indigenous children and youth for ten years in various capacities as an education consultant, curriculum developer, and researcher with L'nu and Wolastoqiyik students. I have had positive experiences with how Indigenous students respond to cultural content in their learning outcomes, especially about cultural practices, gender identity and sexuality.

The term Indigenous refers to the First Nations, Métis, and Inuit people residing in Canada, and throughout this paper you may see terms relating to the Indigenous Peoples of Canada from other sources, including Aboriginal, First Nations, L'nu'k (plural for L'nu) or the L'nu. First Nations is a term that collectively describes specific groups of Indigenous people other than Métis and Inuit. The region where we were born and raised is the First Nation of the Mi'kmaq, and we reside in Nova Scotia, part of Mi'kma'ki, our ancestral territory.

Positioning Ourselves

From our positions as L'nu educators, researchers, and community members, we struggle with the societal perceptions of Indigenous Peoples and challenge the notion that L'nu and Indigenous children, in general, do not meet developmental and academic outcomes compared to non-Indigenous children, arguing instead that the issue is partly that they are not being evaluated based on L'nuwey (of L'nu) or Indigenous Ways of Knowing, being, and doing. From our position as researchers, we know there is a way for Indigenous methodology to merge with westernized assessments in the education system to improve these perceptions and more accurately capture developmental outcomes of L'nu and Indigenous children in the early years. The problematic practice of publicizing educational differences in literacy, numeracy, and developmental outcomes between minority and majority populations further legitimizes a "lesser than" opinion and as educators, we can anecdotally

support that it contributes to weakened self-esteem, low achievement, poor mental health, and a lack of confidence or desire to continue with post-secondary education for Indigenous learners. There is significant evidence to support the contrary, that when Indigenous learners' environment for learning values, cultural practices and language there is a direct link to positive self-esteem and subsequent success from an academic point of view (Morcom, 2017). Evaluators' perceptions of less prepared or developmentally compromised children, when comparing them to western expectations, are also a problematic issue for Indigenous children in public schools (Li et al., 2007). Sharing differences in a more positive way could highlight differing ways of knowing, embrace diversity, and include the intrinsic values of other cultures, such as the Mi'kmaq. We may also consider alternative approaches, such as that of British Columbia, whose data regarding Indigenous populations belongs to the Indigenous people and is not published for public interpretation and thus avoids public misconception due to a lack of cultural context; rather, its source and context is protected and respected.

Aside from the current experiences of L'nu and Indigenous children in education, we must also recognize the unfathomable effects of historical trauma in relation to "school" in Canada for Indigenous People. Healing and mending relationships with institutions, such as schools, are better served through a catalyst of L'nuwey and Indigenous Ways of Knowing. We hope to incorporate Indigenous knowledge into our methodology into this work with integrity and respect. We use Etuaptmumk that takes into account kinship as part of a trust-building process in the methodology (Sylliboy et al., 2021) that is founded on the L'nu Seven Sacred Gifts (APCFNC, 2011). The methods currently used to evaluate Indigenous children in a westernized school setting during some of the most important stages of their lives, in early development, should be reflective of their experience. It is critical to develop a method that places Indigenous children in the centre of the evaluative/learning process alongside their peers, to capture their cognitive (mental), socio-cultural (spiritual), behavioural (emotional), and aesthetic (physical) learning in a way that integrates both traditional and academic learning.

Early Years Childhood Development

The importance of the early years is significant for any child, no matter the cultural, social, economic, or health background. Early childhood development is generally accepted to be the period of development from conception to age eight (World Health Organization, 2020). Despite what we know about early childhood development, the majority of early education initiatives, programs, supports, and education practices are often spread across a variety of sectors and not streamlined into a national or collectively organized system (Zonji, 2018). There also

continues to be a lack of data relevant to Indigenous children's health and well-being (Halseth & Greenwood, 2019).

Problematic trends such as thinking of all Indigenous children "as Aboriginal peoples who speak English; denying their inherent rights to their heritage, knowledges, and languages" and having "certain definitions of what it means to be thriving can have a pervasive influence on young children's daily lives through all of the systems and relationships that surround and embrace that child" (Sam, 2011, p. 320). These are just two examples of ways in which the system continues to perpetuate the feeling of inferiority Indigenous People experience and the perception that Indigenous people need various interventions (Sam, 2011) and continues the stigmatization of Indigenous students as coming from a stance of deficit learning. Family networks are vital in Indigenous child-rearing practices and have been shown to better inform early childhood education and development programs; however, this collaborative process is not common practice in western classrooms. One reason for this disconnect between community and school is the legacy of the Indian residential schools and Indian day schools; there may be distrust in the public system, and Indigenous families may not want to engage with the system (Battiste, 2013). It is also important to consider that there are increasing numbers of Indigenous children in foster care: "52.2% of children in foster care are Indigenous, but [Indigenous children] account for only 7.7% of the child population" in Canada (First Nations Child and Family Services, 2020), which increases the cultural disconnect children may face in current educational settings. Understanding that we need to build a relationship of trust where it has been repeatedly broken is the first step toward engaging with communities and sharing in Indigenous Ways of Knowing (Gerlach et al., 2017).

The nuances of culture vary from nation to nation, community to community, and even within families, but there are a few commonalities among Indigenous children that need to be considered when working with them in their early years. Children are often raised in multi-generational homes, and caregiving is extended beyond the biological parents to grandparents, aunts, uncles, or cousins, in many cases. Indigenous philosophies honour the importance of relationships and the interconnectedness of an individual to, not only the immediate family members, but to the community bound by a "collective consciousness" rather than based on individual needs (Battiste, 2009, p. 207). The community and language are integral interacting components of knowledge development for Indigenous children.

Overall, wellness comprises social/emotional, cognitive, physical, and spiritual aspects, the latter of which is generally ignored in westernized settings. Indigenous children are often raised "to interact with others in a way that is non-competitive, non-threatening, and based on a sense of collectivity" (Stewart, 2019, p. 48), which can "cause

problems with social interactions and educational testing and assessment” (Herring, as cited in Stewart, 2019, p. 48). Being active as observers and watching their caregivers and older family members perform tasks and skills as they develop, rather than being active participants in the process, is a common way for L’nu and Indigenous children to acquire knowledge. Like many children in multi-language homes, Indigenous children from many communities are learning not only one but two, or sometimes even three, languages. Battiste (2013) describes many complications of a Eurocentric education system and its assimilative nature in her book *Decolonizing Education: Nourishing the Learning Spirit*.

Oral tradition and the art of storytelling is a predominant way of knowing and being, among Indigenous Peoples in Canada (Archibald, 2008; Wilson, 2008), especially when children speak their traditional (first) language because they capture the essence of Indigenous consciousness and the understanding of the world, according to Battiste (2009, p. 199). Stories integrate the nature of relationships and deep-rooted connections to the world of knowledge (Kovach, 2009, p. 94). Indigenous children are not exceptions to this method of knowledge transfer, and so, westernized methods of having to demonstrate outcomes through written work may be unfamiliar or be challenging for L’nu students. To further this point, children who speak L’nuisuti or Mi’kmaq do not speak, think, or use the same corporal language as English-speaking children; therefore, they do not express themselves in the same literary or verbal contexts expected in Eurocentric learning, in which they are being assessed. For example, speaking in L’nuisuti has multiple forms of conjugating verbs. “I am sitting on the chair” in direct translation is E’nkopi kutputi’ktuk, but the child could also say, Kutputi’ktuk e’nkopi, translated as “On the chair I sit.”

L’nuisuti or speaking Mi’kmaq has intricate details and nuances, with variations of sentence structure (Inglis, 2004) and many forms of corporal language (Marshall, 1997). However, in English, it would be considered very unusual and even incorrect to say, “On the chair I sit.” It is how the fictitious character Yoda speaks in Star Wars. Most non-Indigenous teachers of L’nuisuti-speaking children would not necessarily understand how these children might also be inadvertently learning how to speak in English correctly. “Yoda talk” may present itself during times of stress, anxiety, or nervousness, especially when L’nu children are asked to speak in public, which may be when the teacher is also evaluating the child for literacy and comprehension skills.

As a person who speaks L’nuisuti, I can share how L’nuisuti-speaking children may be assessed unfairly or incorrectly while trying to speak English. For example, L’nu’k will mispronounce words when their first language is L’nuisuti, or when they speak English in a stressful moment, like being called upon to speak in class.

They may fumble words or mispronounce them—the ch will sound like sh (chair will sound like shair) or the th comes out sounding like a hard-consonant t (thing sounds like ting). The point is that a L'nu-suti-speaking child can easily make critical errors, which may appear as a poor delivery of content, and that may be reflected in the assessment. If this persists, chances are students may be at higher risk of being assessed as having learning difficulties. If a child, or groups of children, are incorrectly assessed in their early learning, they are in jeopardy of being forced into adaptations or educational pathways that do not fulfill their full capacity later in their academics, which affects their overall child development, including their well-being.

Western Lens to Measure L'nu and Indigenous Childhood Health and Development Outcomes: The Early Development Instrument

In an effort to support children in their learning journey, early years developmental readiness for school has become standard practice for many regions. One widely used and respected measurement tool is the Early Development Instrument (EDI), designed by Doctors Magdalena Janus and Dan Offord (2007) from the Offord Centre for Child Studies at McMaster University. The EDI is a 103-item questionnaire that measures children in five developmental areas: physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills and general knowledge. Assessments are completed by the classroom teacher in the second half of the primary (kindergarten) year of school. The data collected from the EDI is meant to give population-level results and indicate trends in education for a particular region or larger area as a whole.

Currently, the EDI has been implemented on an international level in many countries and is used in most Canadian provinces and territories, including Nova Scotia. It is an advantage to have tools that can be used so early in the child's academic life to measure their baseline status as well as their progress; however, it is important to also consider whether what we are measuring for children who have been socialized in a different culture for the early years of their lives may be placing them at a disadvantage if evaluated according to western outcomes. Studies such as Lin, Lawrence, and Gorrell's (2003) provide evidence that when teachers report on school readiness, there is a "strong emphasis on the social aspects of learning. Readiness expectations were influenced by their gender, age, and the geographic region where they were teaching" (p. 225). This suggests that when teachers come from culturally and socially different backgrounds, their perceptions of school readiness may differ greatly and that the "early emphasis on social and personal factors as a prerequisite to sustained academic performance" may inadvertently label culturally different children as not as academically capable

when these teachers are observing their social interactions (p. 234).

To further our discussion about considering cultural context to evaluate L'nu children, we draw on research efforts to establish between-group reliability, as well as to construct validity, cross-cultural validity, and avoid bias. Validity tests are set up to prove that a test does measure what it is supposed to be measuring. Convergent and discriminate validity are two ways of measuring construct validity. Convergent validity measures two items that are measuring the same construct and demonstrates that they are, in fact, related and measuring the same thing. Conversely, discriminate validity takes two items that are not supposed to be related, to demonstrate that they are, in fact, not related (Streiner et al., 2015). In one study conducted by Hymel et al. (2011) convergent and discriminate validity were tested between the EDI and other forms of assessment, and only one of the five domains showed validity under the testing conditions. A "lack of validity of EDI domain scores at the individual level for the EDI's validity at the aggregate level" is also concerning and requires further research (Hymel et al., 2011, p. 279). When the EDI was adapted for use in an Indonesian context, results demonstrated that reliability and validity were weak to moderate at best (Brinkman et al., 2017). These researchers recommended that perhaps a better approach to early education assessment would be "to determine if programs are making an impact for children on outcomes that are meaningful locally" (p. 351), which we could extend even further to suggest researchers ask whether early education is making an impact when it is cognizant of cultural context and safety.

Interestingly, the EDI is collected at the individual level and is most often used to interpret trends at the domain level rather than grouped to generate a representation of a child's overall readiness for school (Hymel et al., 2011). It is not surprising that when data is collected in varying contexts by individual teachers with differing ways of knowing that there would be "considerable individual differences in teacher's ability to evaluate school readiness relative to direct, child-based assessments" and in the administration of the EDI, according to EDI researchers Hymel et al. (2011, p. 267). In British Columbia, the Directions Evidence and Policy Research Group (2016) tested for bias at the scale, item, and implementation levels and found that the EDI could be used to assess overall school readiness at the population level in Indigenous contexts but cautioned that it should not be used to make comparisons between two groups. The research group acknowledged that the results might not be transferrable to other Indigenous groups as the study was only conducted in British Columbia. In controlling for bias, it should also be noted that the teachers administering the EDI in British Columbia are also trained on how to use the tool. In their analyses, the research group examined specifically whether the EDI would function similarly for Indigenous and non-Indigenous children and found that

it did. However, if we view this from a critical standpoint, even though the EDI may function to assess the same way or similarly across different populations, this does not necessarily mean that this is an accurate representation of developmental ability, as there is no cultural context provided. This point further contextualizes our explanation about language and learning for a L'nuisuti-speaking child from the previous section. Possibly, the most significant finding from this publication (2016) is that the "analyses that compared EDI scores with other assessments of children's abilities revealed some evidence that the EDI may not measure Aboriginal and non-Aboriginal children's abilities in the same way" (Directions Evidence and Policy Research Group, p. 42).

While testing for validity and reliability are important aspects in the implementation of psychometric assessments, there are other considerations to be made when working with Indigenous populations. As an Indigenous researcher, Sam (2011) stresses the importance of utilizing Indigenous Ways of Knowing in the validation of using the EDI with Indigenous populations. Research regarding children and their development "is valid and meaningful knowledge if it is clearly linked to the children's and families' wellbeing according to local cultural norms and values" (Sam, 2011, p. 315). Involving families and communities in the validation of assessments, such as the EDI, is to open the door for self-determination and capacity building and contribute to meaningful research while honouring Indigenous Ways of Knowing (Sam, 2011). Additional considerations to limit bias in the administration of assessments would be to ask the teachers if they are involved in the community where these children live. Do they understand the values of the community? These and other questions come to mind for further exploration.

The EDI Outcomes in Mi'kmaq and Non-Indigenous Children

In Nova Scotia, L'nu children attend school either through the public school system or by attending one of the Mi'kmaq Kina'matnewey schools located on reserves. The EDI has been collected provincially every second year beginning in 2012. This data is collected from public schools and relies on self-reporting regarding participants' L'nuwey or Indigenous heritage. Summary reports with the findings have been prepared by the Offord Centre and are available to the public from the provincial Department of Education and Early Childhood Development (Nova Scotia Department of Education and Early Childhood Education, 2015). L'nu and Indigenous children are highlighted in the summary report and are shown to score lower on each developmental domain in comparison to non-L'nu and non-Indigenous children in Nova Scotia.

If schools are adopting assessments to position how children are developing and progressing in the early years, care should be tak-

en to ensure they are appropriate for context and culture. Printed in *A Handbook for Early Career Teachers* (2012), published by the Nova Scotia Teachers Union, is the expectation that “student assessment and evaluation is an ongoing cooperative process among teachers, students and parents” (p. 37). This very statement stimulates questions about how we are evaluating developmental readiness for school and what we consider to be a normative assessment. Martin (2012) highlights the key tenets of Smith’s work regarding decolonization and asks whether or not the existing westernized system is contributing to the oppression and colonization of Indigenous Peoples. For example, Battiste (2013) offers a number of ways in which Indigenous language can be respected and contextualized for more accurate assessments in school, such as ensuring reports are “clear, accurate and of practical value to the audience,” that they assess on an individual continuum, involve Elders in developing means to assess, involve students in their own assessment, and share results in a holistic representation (p. 154). In consideration of L’nu and Indigenous children’s development in a differing cultural context, we urge the reader to reflect on the following ideas. Though there are several widely adopted timelines for development, including the work of leading theorists such as Piaget, Erikson, and Bronfenbrenner, we should consider that the timing and context of developmental milestones might be different in populations of Indigenous children, or even whether they are valid across diverse cultures (Findlay et al., 2014). Several of these considerations are discussed in the following section.

The Role of Culture in the Early Years

A pivotal aspect of an Indigenous child’s development in Canada, yet widely overlooked, is the role that culture may play in developmental outcomes. While most have accepted the idea that development has universal characteristics, such as physically developing from the head down and from the centre of the body outward and that learning occurs from the more concrete to complex understandings, it has been argued that westernized views of psychosocial development need a cultural revision (Stewart, 2019). When considering development from a critical lens we find that “children and adolescents have to master psychosocial developmental tasks through culturally sanctioned socialization,” which are subject to the westernized expectations of society (Stewart, 2019). As a consequence, “most Aboriginal people consider education an ongoing failure” with “neither the assimilative path ... or integrative approaches ... nurturing Aboriginal students beyond high school” (Battiste, 2013, p. 24–25). Battiste, in a later publication, explores the importance of Indigenous humanities as integral core components of secondary and post-secondary education as a trans-systemic concept that centres Indigenous knowledge systems as a means of innovative

learning (Battiste, 2016), which highlights the need for academic reform in curriculum and pedagogy.

An interesting and critical point to take into consideration is that L'nuisuti-speaking children's thinking pattern is derived from oral tradition, where "no one learns by verbal-knowledge but one learns through observation all during your lifetime" (Marshall, 1997, p. 2). In other words, the learning pattern is more circular, which allows for children to speak more fluidly and freely, instead of speaking in a linear-like pattern following precise rules, as English speakers are expected to do. Elder Murdena Marshall (1997) affirms that L'nuisuti "focuses on the process of knowledge, the action or verb consciousness, and not on the nouns or material accumulation" (p. 5). Applying this knowledge into pedagogical design, which includes strategies for evaluation, is the way to improve education outcomes for L'nuisuti-speaking children.

There is evidence that suggests language comprehension is stronger for L'nuisuti-speaking students going through the immersion program than the students in the English-based curriculum in Eskasoni First Nation. A study by two L'nu educators looked at how L'nuisuti immersion students "were more successful readers" in middle school based on their outcomes from their immersion curriculum in the students' earlier years (Paul-Gould et al., 2013, p. 43).

The results show that of the 81 students in Grade 7 in September 2008, only the 16 former immersion students and 9 others were reading the upper levels (X, Y, and Z [The Benchmarks Assessment System]) of the reading assessment. This indicates that all former immersion students were among the top-achieving students in grade 7 reading, which is quite persuasive evidence of their strengths in English literacy. (Paul-Gould et al., 2013, p. 44)

The research demonstrated that if children are provided adequate cultural context in their learning, they are able to succeed in their academic outcomes, which underscores the role of culture in learning.

Development from a Cultural Perspective

Children who are bilingual, or learn their own Nation's first language initially, have not been shown to demonstrate developmental complications; however, in some cases, proficiency of one language over the other occurs and can change over time (Nicoladis et al., 2016), which is confirmed by Paul-Gould et al.'s (2013) study for L'nu children. This scenario could affect the assessment of language skills and comprehension if a child is more proficient in the language that a teacher is not familiar with or fluent in. Other areas to consider include not only the social determinants of health but what Reading and Wien (2009) refer to as the structural determinants of Aboriginal (Indigenous) health, as we know that each of these do have impacts on development in Indig-

enous children. Lower socioeconomic status, less access to health services, and policies reinforcing colonialism are a few examples to illustrate their description of the proximal, intermediate, and distal factors that overlap to impact Indigenous People's health. These factors affect the overall health and well-being of our Indigenous children and have been shown to impact them during their adult lives (Greenwood et al., 2018). Due to the interconnectedness of health and development, there are implications that prevalent chronic pain conditions, such as chronic ear and oral health infections (Latimer et al., 2018b), may have on L'nu children during their early years. These conditions could play a key role in children's ability to demonstrate educational outcomes or could interfere with specific domains of development, like communication. Many sources of research, including the World Health Organization, also indicate the connection between chronic ear infection and resultant hearing problems or loss in children (Deafness and Hearing Loss, 2020).

There are ways to improve the health of youth by strengthening cultural connections in their lives. Studies suggest that language acts as a protective barrier for youth who may face mental health and even suicide ideation (Chandler & Lalonde, 1998; McIvor et al., 2009). The argument cements the justification for integrating strong elements of culture into learning contexts to ensure not only educational outcomes but overall development. The Truth & Reconciliation Commission of Canada Calls to Action (2015) and the United Nations Declaration on the Rights of Indigenous Peoples Indigenous (UNDRIP) (United Nations, 2007) support the efforts of language and cultural preservation, which are centred around Indigenous Ways of Being and Knowing.

As educators, we understand how challenging it is to work within the education system, at the school level, and in a classroom with large numbers of students, but the persistent and relatively unchanged landscape for our L'nu children is cause for action. What are we perpetuating by not embracing the holistic nature of a child? Can we actually assess without understanding development in a cultural context? When a child's environment is culturally compatible, it has been demonstrated that learning outcomes improve (Preston et al., 2011; Aronson & Laughter, 2016). Consistently marginalized populations would benefit greatly from all educators shifting to a place that is strengths-based and mindful of culture as a first step in their way of teaching. By taking this approach we are making a strengths-based outlook a place of origin, rather than destination, in our education system.

Evidence Against Westernized Assessment Methods in Other Contexts

Given the recent literature regarding L'nu children's unique way of speaking and learning, as well as the differences in pain expres-

sion and the potential that westernized medical models completely miss or may be inaccurate in identifying pain for L'nu children (Latimer et al., 2018a), it raises the question about the accuracy of evaluating Indigenous children using educational assessments developed from westernized perspectives. "The dominant group defines what is," and the use of assessments developed by and for the colonized world are "not appropriate for use with and potentially damaging to" Indigenous people (Stewart, 2019). In addition to this, highlighted in Latimer et al. (2018a) we find that Indigenous children are also more likely to have "non-expressive behaviour" despite varying intensities of their pain. Again, this raises questions about what impact this finding may have on their interactions in the educational environment.

How does the teacher interpret a child's behaviour in these situations? Are behaviours understood from a differing perspective? Are behavioural and learning disorders misdiagnosed due to cultural misunderstanding? An additional compounding factor is the impact that children's pain may be having on their ability not only to attend school, but to demonstrate developmental outcomes to the best of their ability. Research has shown that 45% of 1,700 British Columbia youth regularly miss school due to pain (van der Woerd et al., 2005). The demonstration of outcomes, then, becomes an issue of accessibility rather than capability. The westernized way of delivering curriculum and assessing for comprehension and mastery of outcomes, as well as the general lack of collaboration between the system and community in curriculum development, are suggested to be counterintuitive to Indigenous Ways of Knowing and learning (Preston et al., 2011).

Etuptmumk/Two-Eyed Seeing: Guiding the Way Forward

Though having originated out of curriculum development and the intertwining of Indigenous Ways of Knowing with western methodologies relating to science, E/TES has become widely adopted as a L'nuwey and Indigenous methodology when engaging in many aspects of academia, including educational research and counselling methodology. E/TES gives "equal consideration to diverse Indigenous and non-Indigenous worldviews such as that one worldview does not dominate or undermine the contributions of others" and allows space for richer discussion and question formation (Martin, 2012, p. 21). Elder Albert Marshall (2012) succinctly states that there is a risk, however, that people will improvise as they go and that those engaging with a E/TES methodology must receive "validation, by recognized community Elders and Knowledge carriers, of that which is brought forward" and that this is "exceedingly important" to the process (p. 332).

The E/TES approach could be used to shape future work in the assessment of L'nu and Indigenous children, whether the EDI continues

to be used, or if alternate ways of assessing for developmental outcomes are piloted. An E/TES approach when working with children in their early years of education, alongside their families, communities, and educators, endeavours to ask whether our current way of doing things can be done better and whether it is being done “for the benefit of all” (Bartlett et al., 2012). E/TES would help to shape the terminology used in assessment and educational practice to better reflect the knowledge and understanding of L’nu and Indigenous people during developmental milestones, providing an alternate perspective with which to interpret results on assessments.

An E/TES approach was implemented similarly for clinical practitioners during the health assessment of L’nu and Indigenous children who seek pain care. The impetus is on using L’nuwey health perspectives along with western-based clinical practices to humanize the healthcare encounter for Indigenous children and youth (Sylliboy & Hovey, 2020). It is a model that implements the L’nu Seven Sacred Teachings as a source of L’nuwey knowledge with western-based clinical practices (pain scale and facial grimaces) to assess L’nu children’s pain experience. It is transferable knowledge from a health context about building trust and engaging L’nu and Indigenous children in a relational way that can be implemented in educational assessment.

Supporting the recovery from “cultural starvation,” an E/TES methodology allows L’nu’k and Indigenous peoples to see themselves as active participants in their learning (Bartlett et al., 2012, p. 19). By giving a voice to Indigenous peoples and by fostering “individual identities ensure collective continuity,” traditional knowledge is cultivated (Greenwood et al., 2018, p. 65). Continuously using E/TES is actively validating Indigenous cognitive processes and furthering Indigenous epistemology as a source of knowledge in academia.

L’nu children learn just like any other children, except they may be learning from L’nuwey and western knowledge simultaneously. If they also speak L’nuisuti, their ability to learn is enhanced by that E/TES or co-learning process that is innate in L’nu’k. Their learning is multidimensional because they are immersed in their tribal consciousness and because their language and culture are embedded with values, beliefs, skills, and abilities that are transmitted through oral tradition. They are attuned to their multi-sensorial abilities through ceremony, song, dance, and storytelling, especially children who speak their language or are immersed in a cultural language. Signals are transmitted through cultural language and communication and through cultural activities, which accumulate into knowledge. Do current assessments capture those learning skills? As L’nu educators and researchers, we believe that assessments need to integrate that whole sensory learning into meaningful assessment tools. L’nu and Indigenous children are growing up in environments with L’nuwey and Indigenous and western knowl-

edges that can enhance their learning abilities, such as code-switching, If their strengths are acknowledged, bilingual-bicultural children can be more developmentally advanced if we can then appreciate a varied landscape of strengths, rather than deficits when Indigenous children enter our classrooms (Greenwood et al., 2018).

With an E/TES methodology, and as similarly described in cultural compatibility theory, “Aboriginal communities have the latitude to determine the design and implementation of early childhood programs based upon contextualized realities” (Preston et al., 2011, p. 7). In creating culturally responsive programs or assessments in education, “it would be vital to ensure that culture is a concept First Nations people are permitted to define and own for themselves, rather than having it assumed or prescribed for them” (Davis, 2012, p. 42). An E/TES process makes space for a method such as this and that is both transformative and reflexive, two defining characteristics of this methodology and approach.

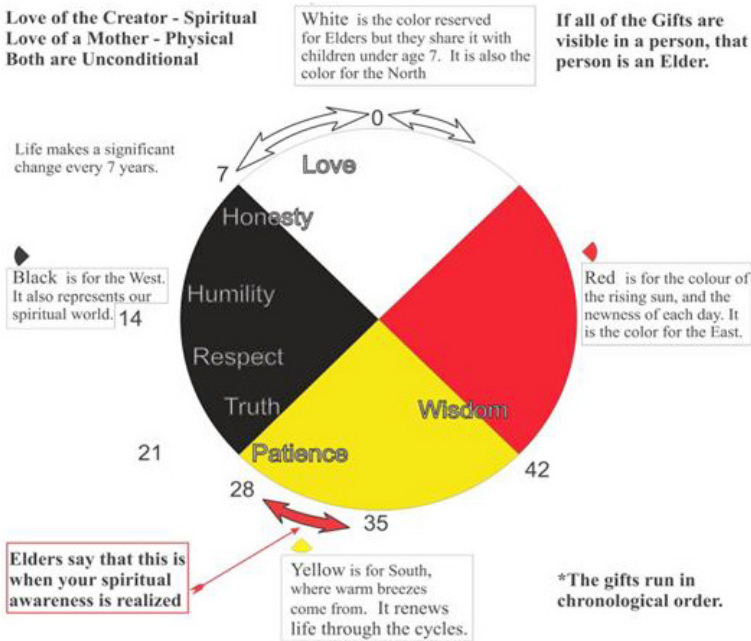


Figure 1. Seven Sacred Gifts (Designed by Thomas Johnson for Murdena Marshall)

E/TES is based on the principle that L’nuwey /Indigenous

knowledge is foundational as the primary source when developing strategies, methods, and evaluative tools for Indigenous children. In the case for L'nu children, the L'nu Seven Sacred Gifts, (Figure 1) a teaching outlined by Elder Murdena Marshall, could be used as guiding principles for developing assessment tools. This would be an example of a primary source of L'nuwey knowledge.

The suggestion is to develop an assessment tool within the context of the four dimensions of learning for L'nu children that captures the mental, emotional, physical, and spiritual elements of L'nu children's learning. The diagram is useful for considering the cultural context of where the child is in their (cultural) development. Once the L'nuwey/Indigenous perspective is outlined within an assessment tool, then the integration of western strategies outlined in the context of EDI outcomes can be included, which may provide a more robust method of assessment. The co-application of strategies from both sources of knowledge will enhance or strengthen the overall strategy.

As a Two-Spirit researcher, I share another concrete example of how I implemented the L'nu Seven Sacred Teachings as a L'nuwey cultural tool to conceptualize Two-Spirit identity concerning the coming out process (Sylliboy, 2021). Elder Murdena Marshall dedicated her entire professional career as a community and culturally based educator, linguist, professor, healer, and a researcher. Elder Marshall, Two-Spirit Elders, and Knowledge Carriers collaborated on a research project, and they directed me to implement the L'nu Seven Sacred Teachings as a model to understand the coming out process for Two-Spirit youth and adults. Elder Marshall developed the model as a foundation of our L'nuwey beliefs, values, and philosophy for Being and Living as L'nu'k. The teaching is fluid and easily transferable to implement as an EDI tool, which would require L'nu educators and Elders' validation similar to how they validated the tool for my research about Two-Spirit identity.

Implications

Indigenous children are the fastest growing age cohort in Canada, with one in four children under the age of 15. In Nova Scotia, 22.4% of the total First Nations population is under the age of 14 (Statistics Canada, 2017). The relatively unexplored area we discuss here, relating to L'nu children's early years, could have a profound impact on the largest-growing population to enter early childhood education in Canada. While the variations among L'nu and other Indigenous communities are vast, the overarching needs remain the same, and "the provision of quality Aboriginal early childhood education offers the hope of eliminating the appalling systemic inequalities experienced by many Aboriginal peoples" (Preston et al., 2011, p. 13). The impact of labelling L'nu and Indigenous children in their first year of school may set unnec-

essary, and possibly imagined, boundaries for them around their capability. The inference that Indigenous children experience systemic racism in school systems is not a novel concept. De Plevitz (2006) published a paper that highlighted the outcomes of the New South Wales Review of Aboriginal Education and the implication for Aboriginal children. "Recent reports on Indigenous education have revealed that high proportions of students have been placed in special classes for intellectual disability or behaviour disorders. This is not an isolated phenomenon. Indigenous students in Canada and Romani children in Europe are also disproportionately represented in special schooling" (de Plevitz, 2006, p. 44). There may be some benefit in identifying the strengths that children demonstrate, but an E/TES approach may be effective in improving the assessment of children to capture cultural skills and abilities and address the overrepresentation of children with behavioural or learning limitations. Implementing Elder Murdena's diagram of the L'nu Seven Sacred Gifts is a deliberate exercise in centring our L'nuwey knowledge as an innovative way of exploring early childhood development and EDI, which we aim to further through research.

Considerations of L'nu Children's Development

When using the EDI and interpreting results pertaining to L'nu children in Nova Scotia, there are several considerations regarding validity within and among those populations. Content validity should be tested in several of the domains being measured with L'nu children, such as social competence and communication skills and general knowledge, and these domains should also be assessed for cultural relevancy. Collaborating with communities and exploring what exactly school readiness is, as viewed by L'nu'k, is integral in supporting our First Nations populations and building an element of trust in an otherwise negative space for many First Nations parents and caregivers. The adaptation of the EDI may need to be explored from L'nuwey and Indigenous Ways of Knowing and, specifically, through an E/TES approach. The policies that govern evaluative processes need to be constructed through better consultation with L'nu and Indigenous communities and Knowledge Carriers to implement E/TES. It will strengthen a mutual understanding of why EDI must implement L'nuwey/Indigenous perspectives in evaluations that target L'nu/Indigenous students.

The landscape of early education programs is varied across the province of Nova Scotia, and as such, contributes in different ways to the diverse populations that are entering the schools. Researching the EDI in various contexts relating to specific early education programs would be helpful for understanding how children are prepared to achieve the outcomes, keeping in mind that this particular point of view is informed by a westernized perspective. The implementation

of an E/TES approach to further explore how EDI can capture and improve the educational outcomes of L'nu and Indigenous children needs to be expanded through research. In addition to investigating the various early childhood education programs, research must consider that the L'nu population in Nova Scotia resides in many settings, including on- and off-reserve residences and rural and urban areas. In some communities there is access to schools on-reserve for the entirety of their education, and in other communities, children attend public schools for some or all of their education. These differences in location, pre-school education programs, and attendance at public or on-reserve schools impact children's entrance to school in a variety of ways. Lastly, but certainly not of least importance, is the undeniable connection between specific health conditions and educational outcomes. A more holistic and culturally safe approach to evaluation would place L'nu and Indigenous children and their communities in a strengths-based position in their academic and developmental success trajectory.

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