Supporting Indigenous Students through a Culturally Relevant Assessment Model Based on the Medicine Wheel

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We describe the development of a student assessment model based on the medicine wheel for implementation in the Child Welfare course (FCC 240) as part of the Family and Community Counselling Program at the Native Education College (NEC), a private Aboriginal post-secondary institution in Vancouver, BC. We discuss the process of developing the model from our own social locations: Roselynn is a female Caucasian instructor with European and Indonesian heritage; Jair is a male adult learner with Mestizo/Indigenous heritage from South America; and Ashley is a female Indigenous learner with Wet'sewet'en Carrier heritage. Drawing from theory on culturally relevant assessment, we present an assessment model that privileges students' many ways of knowing in the context of a course on child welfare. The framework for assessing students takes into account the institutional aims and objectives of NEC, the specific course goals and learning objectives of FCC 240, and supports the diverse perspectives and experiences of the Indigenous learners who are studying to be social workers. By emphasizing these perspectives, the students can focus on their strengths as Indigenous youth, make their learning more meaningful, and place learning within a context that may be more culturally relevant.

Introduction

This paper explains a process that was used to generate a course student assessment model based on the concept of the medicine wheel for implementation in the *Child Welfare* course *(FCC 240)* at the Native Education College (NEC). Drawing on literature from education, social work, and cultural studies, we first discuss the concept of the medicine wheel, including its origins, symbolism, and pan-Indigenous usage, to situate the development of our medicine wheel assessment model. Second, we provide a rationale for the development of our assessment model by highlighting some of the history of formal education for Aboriginal learners, as well as discussing some theory and literature on cultural models of education. Third, we explain the context of NEC, including the Family and Community Counselling Program and the broader institutional goals of NEC, to

contextualize the development of our assessment model. Next, we provide a detailed explanation of our assessment model, including the stages in the development of the model, to highlight how the model was generated. We then discuss some of the benefits of our assessment model, highlighting institutional reform in education and the promotion of Indigenous youth strengths and knowledge. We conclude by examining some of the challenges with our assessment model. In writing this article, we hope that those instructors working within Aboriginal higher education and generally with Aboriginal students will both challenge and build on our work to better support culturally relevant assessment.

Why the Medicine Wheel?

According to Sevenson and Lafontaine (2003), the medicine wheel is considered one of the basic worldview symbols among many prairie First Nations. Although the concept of the medicine wheel has different meanings and expressions for different Aboriginal peoples, some of the principles are considered quite common (Sevenson & Lafontaine, 2003). For example, a common principle of the medicine wheel is balance, as "everything is related to everything else" and "things cannot be understood outside of their context and interactions" (Sevenson & Lafontaine, 2003, p. 190).

Given the diversity of Aboriginal peoples and their values and beliefs, many different conceptualizations of the medicine wheel exist (Garrett, 1996; Kemppainen, Kopera-Frye, & Woodard, 2008; Pepper & Henry, 1991), and many Aboriginal peoples use different philosophies and teachings of the medicine wheel (Dumbrill & Green, 2008). The medicine wheel is premised on the circle and cyclical concepts, which for many Aboriginal peoples have significant cultural and spiritual meaning (Kemppainen et al., 2008; Lavallee, 2007). According to Black Elk, the circle is the central symbol involved in everything Aboriginal people do "because the world is viewed as working in circles" and being cyclical (Neihardt, 1932, as cited in Kemppainen et al., 2008, p. 81).

Visual representations of the medicine wheel often include a circle with two vertical and horizontal lines bisecting at a midpoint to create quadrants (Kemppainen et al., 2008). Depending on the teachings of different Aboriginal peoples, the four quadrants can represent different ideas and concepts as well as different relationships to each other, the universe, and the individual (Kemppainen et al., 2008). For example, some medicine wheels encompass four directions (east, south, west, and north), four seasons (spring, summer, fall, and winter), four colors (yellow, red, black, and white), four sacred medicines (tobacco, cedar, sage, and sweet grass), four sacred animals (eagle, deer, buffalo, and bear), four stages of life, (child, adolescent, adult, and elder), and four directions of human growth (mental, physical, emotional, and spiritual) (Kemppainen et al., 2008, p. 81).

There are differing opinions as to the origin of the medicine wheel. According to Indigenous scholar Marlene Brant Castellano, "the medicine wheel was part of the culture of nations of the plains including the Dakota, Blackfoot, and Cree" (2000, p. 30). This viewpoint is supported by historians who have noted that medicine wheels were stone formations created by Aboriginal peoples from the Plains (Bruyere, 2007). Even though the historical origins of the medicine wheel, including its teachings, are difficult to determine (Bruyere, 2007), many Aboriginal peoples are aware of the medicine wheel and use it in different ways (Graham & Stamler, 2010). This is because the diverse teachings have been shared by Elders and teachers within different Aboriginal societies. At the same time, the "term medicine wheel has come to be used in a contemporary sense as a kind of pan-indigenous rubric to identify sets of similar teachings that have unique histories among a wide variety of Aboriginal peoples" (Bruyere, 2007, p. 261). As a result, not all Aboriginal peoples relate to the concept of the medicine wheel (Bruyere, 2007).

Medicine wheels have been used in a variety of settings for various purposes, including healing, program development, and assessment. For example, White Bison, a sobriety and addictions recovery non-profit organization, incorporates the medicine wheel with a curriculum for recovery support and relapse prevention; the Phoenix Institute of Victoria integrated the medicine wheel in a program called "Shamanism for Women: Traversing the Worlds of Self" (Kemppainen et al., 2008); and the University of British Columbia School of Social Work and a local Aboriginal community used the medicine wheel for articulating curriculum recommendations for the development of a social work education program (Harris, 2006). Dumbrill and Green (2008, p. 495) have used the concept of the medicine wheel to theorize that it "provides a means of re-conceptualizing both academic and societal space". The philosophy of the medicine wheel is to understand ways of honouring each other, to recognize diverse ways of life, and to respect all who contribute to our knowledge systems (Dumbrill & Green, 2008). This means that the medicine wheel "re-conceptualizes societal space in an alternate holistic way" and, as a result, helps to re-conceptualize and re-configure academic space (Dumbrill & Green, p. 497).

In the context of education, a greater number of institutions are using the medicine wheel in their programs and curricula for varying purposes, some of which support the inclusion of spirituality. Orr (2000) states that spirituality has only recently become an important organizing feature of Aboriginal adult education programs. Today, Aboriginal adult educators are more likely to "focus on cultural practices that foster an Aboriginal identity that is spiritually rooted" (Orr, 2000, p. 59). This cultivates a deeper sense of Aboriginal spirituality by focusing on enhancing, preserving, and sometimes reintroducing Aboriginal spirituality (Orr, 2000). The use of the medicine wheel is one educational tool that can support the cultivation of

Indigenous knowledge, as it "establishes harmony between physicality, relationality, wisdom of the elders, and spirituality" and can support healing and conflict resolution (Orr, 2000). In the medicine wheel, the spirit is at the centre of the entire knowledge process, which supports the seeking of balance between the four dimensions in the wheel (Orr, 2000).

History, Ethnocentrism, and Cultural Models of Education

Historically, education in North America has promoted assimilation to a Euro-American lifestyle (Estrin & Nelson-Barber, 1995). In particular, through the process of "global conquest and colonization, European nations attempted to subjugate Aboriginal people by eradicating Indigenous knowledge" (Dumbrill & Green, 2008, p. 490). "The primary weapon in this mass subjugation was education" (Dumbrill & Green, 2008, p. 490). In Canada, many Aboriginal children were systematically removed from their families and communities, and placed in residential schools where education was used as a weapon to indoctrinate them with European ideas (Dumbrill & Green, 2008). Given many Aboriginal peoples' negative experiences with schooling, many have strong feelings about education. Presently, much of the current curricula and pedagogies (including assessment practices) in schools continue to be alienating because they "make no connections to the cultures, histories, and languages of Aboriginal students" (Estrin & Nelson-Barber, 1995, p. 1).

To understand our medicine wheel assessment model, it is important to understand what assessment is. It is generally understood that "improved learning....can be demonstrated only through appropriate assessment practices" (Estrin & Nelson-Barber, 1995, p.1), and that assessment is central to students' experiences of their education (Rust, O'Donovan, & Price, 2005). Thus, assessment is one of the largest influences on how students view and approach learning (Rust et al., 2005). Assessment is defined as "a process of obtaining information about student learning that can be used to guide a variety of decisions and actions" (FairTest, 1996, p. 3). Therefore, the goal of assessment is to improve student learning. In an educational context, assessment helps teachers to identify students' strengths and weaknesses, understand their interests and how they learn, determine how to help each student and the class, assist students to think about their own learning, and measure what and how well students have learned (Fox, 1999).

Although assessment can support student learning, assessment is always embedded in cultural contexts. This is because the very act of giving students a test or assessing students constitutes a cultural product or event (Estrin & Nelson-Barber, 1995). This is connected to the concept of cultural models of education. Cultural models of education are patterns of ideas and practices relevant to education that are taken for granted, derived from previous experiences, and that mediate and regulate behav-

ior in an academic context (Fryberg & Markus, 2007). For example, when learners enter a classroom, they bring a framework of meanings that reflect their social and developmental experiences (Fryberg & Markus, 2007). Furthermore, cognition, thinking, and learning develop within particular settings; as tools of thought, they incorporate distinct cultural assumptions that are often tacit and taken for granted (Fryberg & Markus, 2007). These tools of thought or cultural models "develop in and are shaped by the nature of specific social interactions, and in general, mediate the relationship between the individual and the environment" (Fryberg & Markus, 2007, p. 215). As a result, the process of obtaining an education necessitates learners' engagement with culturally-specific meanings and practices (Fryberg & Markus, 2007).

Cultural models of education include historically-derived and socially-instituted sets of ideas about the meaning of education, about how to be a good student, about the role of education in becoming a "good" person, and about the nature of the relationship between the student and teacher (Fryberg & Markus, 1997). These cultural models of education are defined as elements of cultural context; they are patterns of ideas and practices that define and structure the domain of education and are reflected in and fostered by individual interpretive frameworks or schemas (Fryberg & Markus, 1997). Therefore, it is not surprising that Aboriginal students, like other learners with specific cultural models of education, often encounter educational practices in classrooms that reflect little understanding of, and do not value, their cultural ways of knowing and learning (Estrin & Nelson-Barber, 1995).

Researchers have found that curricula that focus on building cultural identity are connected to lower dropout rates and increased literacy skills for Aboriginal students (Estrin & Nelson-Barber, 1995). In many Aboriginal communities, the learning of concepts is interconnected and the learning of skills is done in a meaningful context (Estrin & Nelson-Barber, 1995). Given this, a more holistic and integrated approach to education is likely more compatible with traditional Aboriginal ways of learning (Estrin & Nelson-Barber, 1995). In a more holistic and integrated model, assessment would occur in a more meaningful context and it would be embedded in and would occur simultaneously with instruction (Estrin & Nelson-Barber, 1995).

Context of NEC: Family and Community Counselling Program and Institutional Goals

NEC is a private Aboriginal post-secondary institution in Vancouver, BC that "provides a culturally appropriate and supportive learning environment for Aboriginal learners, within available resources" (Native Education College, 2010, p. 7). Since its inception in 1967, NEC has aimed to provide the following results: "Learners will experience a learning environment that respects and reflects the diversity of Aboriginal culture;

learners get the support they need to achieve their educational goals in a way that respects their individual cultural values; and learners get prepared for meaningful roles in Aboriginal communities and society in general" (Native Education College, 2010, p. 7). NEC offers Developmental Studies and Professional Studies, which encompass several certificate and diploma programs, including Family and Community Counselling (FCC) which offers both a certificate and a diploma. From 2009-2010, NEC enrolled 176 students in its programs. Enrollment has increased each year, with a 31.3% increase during 2009-2010 from 2008-2009.

Students in the FCC program are diverse in terms of age, heritage, professional experience, educational background, and other factors. To meet their diverse needs, the program "offers specialized training for delivering social services within the cultural values and beliefs of the Aboriginal community" and "follows a holistic approach to learning" (Native Education College, 2010, p. 18). Students are encouraged to share their knowledge and culture, and the program strives to promote balance in each student's mental, spiritual, emotional, and physical development. The FCC certificate "addresses issues of power and issues of discrimination based on age, race, gender, sexual orientation, class, and culture" (Native Education College, 2010, p. 18). The diploma is designed to further increase the skills and knowledge of certificate graduates working in Aboriginal community agencies or other social service agencies, and offers a transfer option for students interested in furthering their education. To successfully complete the diploma, students must complete ten required courses and a culminating practicum. The required courses are: Academic Writing and Research; Recovery and Rehabilitation; Legal Advocacy; Social Work Practice; Mental Health; Issues in Counselling; Introduction to Social Welfare; Child Welfare; Ableism/Disability; and Crisis Support Counselling.

The FCC 240 course, as part of the FCC Diploma program, explores the history of child welfare and views it from an Indigenous perspective, discussing past and current practices and policies. As a required course, FCC 240 is forty-five instructional hours and is taught once weekly for three hours. The course description is as follows:

> FCC 240 emphasizes the current trends in child welfare as set out by both the federal and provincial governments and examines Aboriginal self-government and the adequacy of funding for child welfare initiatives. Through lectures, small and whole group discussions, guest speakers, and in-class work, students discuss and gain an awareness of contemporary approaches to the protection of children. Current programs in Indigenous communities are reviewed discussing the movement toward healing from past practices and the strive toward Indigenous control of child welfare practice for children, families, and communities. Students begin to address their own values and ethics in light of changing Canadian paradigms, in order to focus on advocacy work that assists children and families with their rights under legislation (Verwoord, 2009, p. 1).

Rationale for the Development of the Medicine Wheel Assessment Model

First Time Teaching in FCC: Roselynn's Assessment Approach:
From January to April 2009, Roselynn Verwoord taught the FCC 240 Child Welfare course for the first time to nine students enrolled in the FCC diploma. She assessed student assignments using a rubric that was based on NEC's standard grading scale (A, B, C, etc.). Students were not provided with a copy of the rubric during the course but were familiar with NEC's grading scale. Throughout the semester, several students asked questions about the marks on their assignments and wanted a clear explanation for why they had received a particular grade. Roselynn had provided written feedback on each assignment but students seemed to want more and to fully comprehend the terms of assessment.

Culturally Relevant Assessment:
Having taught one course (FCC 230 Legal Advocacy) previously to the same nine students (from September to December 2008), Roselynn knew these students fairly well and had developed a positive rapport with them. She was familiar with NEC's institutional objectives and mission statement, and had thought about making assessment more meaningful and culturally relevant for students, to support their educational and professional development, and to make her teaching more congruent with NEC's institutional goals. As a non-Aboriginal instructor at NEC, Roselynn aimed to integrate Aboriginal content within courses by using materials written by Aboriginal authors, bringing in Aboriginal and non-Aboriginal guest speakers working at organizations serving the Aboriginal community in Vancouver, and by allowing students to share and write about their experiences. She did not believe that her assessment method was congruent with supporting students. Roselynn had heard that some NEC instructors used the medicine wheel in their teaching; with some background knowledge of the medicine wheel concept, Roselynn was prompted to consider how it might be used in assessment. She contacted the FCC Program Director and the Academic Dean at NEC to seek approval to develop an assessment model based on the medicine wheel concept for use in FCC 240 during the January–April 2010 section and to conduct a research project to determine the impact of using the medicine wheel assessment model for students' learning.

The remainder of this paper explains how our medicine wheel assessment model was developed and presents the current medicine wheel assessment model in use for FCC 240. We are currently analyzing the research study data on the impact of the medicine wheel assessment model on students' learning in FCC 240, and these findings will be published at a later date.

Development of the Medicine Wheel Assessment Model

In the summer of 2009, the medicine wheel assessment model proposal was approved and Roselynn contacted two former FCC 240 students, Jair and Ashley, who had expressed interest in the medicine wheel during the January–April 2008 offering of the course. These students indicated that they were interested in collaboratively developing the medicine wheel assessment model for FCC 240. An initial meeting was scheduled where Roselynn explained her vision of a student assessment model based on the medicine wheel. To avoid conflict over collaborative activities, Roselynn explained her overall intentions and both Ashley and Jair shared their experiences in FCC 240, particularly around the assessment of assignments.

Both Jair and Ashley had done well (achieved A-level grades) in FCC 240. Roselynn believed that their feedback on their FCC 240 student experiences and about what assessment aspects did and did not work for them was important, as their experiences would provide a basis for understanding what the new FCC 240 assessment model would need to include. Both Ashley and Jair spoke about a sense of inconsistency between Roselynn's marking of assignments and the oral grading expectations she gave to students for each assignment. Ashley and Jair also spoke about their need for instructors to be clear about student expectations. After they shared their experiences, there was a discussion about the rationale for using the medicine wheel. Both Ashley and Jair were familiar with the medicine wheel from their NEC student experiences and from their work with Aboriginal organizations and they both raised questions about the relevance of the medicine wheel to all NEC students. This questioning prompted thoughts about NEC's institutional goals to make learning "culturally relevant" and what a medicine wheel assessment model would look like in the context of the FCC 240 course.

Ashley liked the idea of using the medicine wheel, despite its potential lack of familiarity for some NEC students, because she believed it would benefit students' learning, even if it didn't pertain specifically to their culture. Jair commented on how the medicine wheel, in some cases, has been extracted from its cultural context and used by many cultures and groups for diverse purposes. Questions were raised as to which medicine wheel to use and what impact it would have on students. This led to the exploration of various medicine wheel models. Each of us shared different medicine wheel models and teachings that we had learned from different contexts, including teachings from Elders, workshops, academic literature, guest speakers, and other sources. We looked for similarities across the medicine wheel models and teachings, and discussed the relevance of each aspect to the specific context of FCC 240. For example, we decided that we wanted to use the four quadrants (mental, spiritual, physical, and emotional) because they collectively represent the holistic nature of learning and being in the world.

Based on our exploration and discussion of medicine wheel models and teachings, we decided to develop our own model that was specific to the context of FCC 240. It would not only consider the specific course goals and student experiences, but also (and in particular) the gap between what Ashley and Jair felt that they learned and what the stated course goals and learning objectives were. The discussion about Ashley and Jair's learning helped Roselynn to understand which course aspects were unclear for them and to speculate about which course aspects were likely unclear for other students. This reflection led Roselynn to revisit the course learning objectives: to remove those that Ashley and Jair felt were not covered in the course or assignments and to rewrite some to make them clearer and more measurable.

The Medicine Wheel Assessment Model

Our medicine wheel assessment model demonstrates the connections between NEC's institutional goals and the learning objectives of FCC 240. The model communicates to students how the learning objectives of FCC 240 are connected to each assignment, thus facilitating students' understanding of course expectations and how the stated learning objectives inform and shape their learning.

Each domain (mental, spiritual, physical, and emotional) of our medicine wheel assessment model comprises 25 points or 25% of a student's grade for a particular assignment. This represents the balance between each of the four domains of our medicine wheel assessment model, helping students to understand how each aspect of their learning is being privileged in an academic course.

Our medicine wheel assessment model *[Figure 1]* begins with a bisected circle representing the mental, spiritual, physical, and emotional domains. The arrows between the four domains visually represent the interconnection between them. This initial circle is surrounded by another circle, listing four seasons (winter, spring, summer, and fall); four colours of the four races (white, yellow, red, and black); and four directions (north, south, east, and west). Outside of this circle is yet another circle that numbers and lists the learning objectives (LOs) of FCC 240 (also listed in the course outline). The LOs are:

- LO#1: Understand the changing context of child and family policies, including history and past practices
- LO#2: Examine policies and practices and impact on Aboriginal child and family services
- LO#3: Describe the current legislation in child welfare
- LO#4: Evaluate the child welfare system in the context of the best interests of the child
- LO#5: Identify and apply ethical professional principles and practices related to responding to child welfare and service delivery

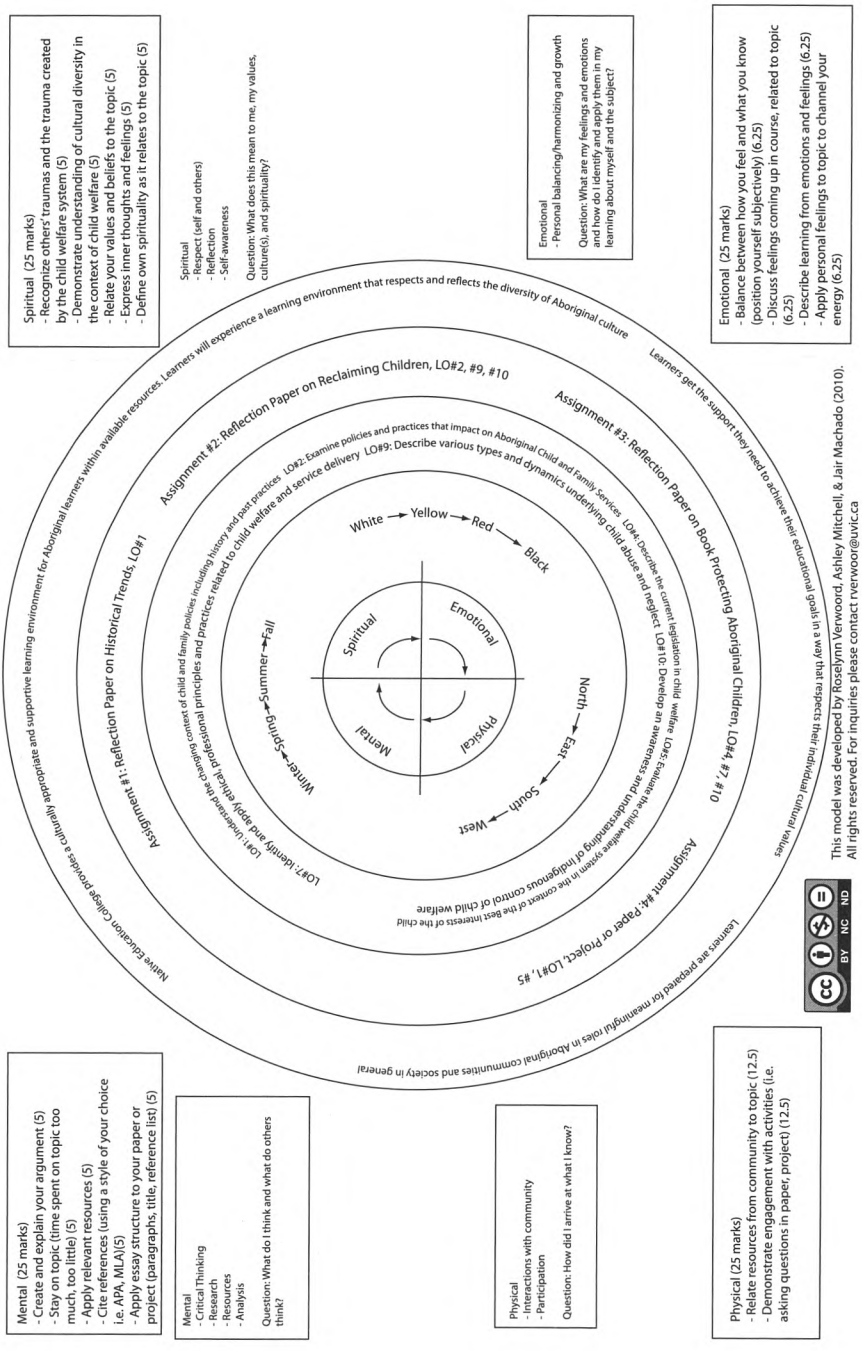

Figure 1. FCC 240 Child Welfare Medicine Wheel Assessment Model

- LO#6: Describe various types and dynamics underlying child abuse and neglect
- LO#7: Develop an awareness and understanding of Indigenous control of child welfare.

Outside of the LO circle is another circle that lists each course assignment and connects the corresponding LOs for each assignment (e.g., Assignment #1: Reflection paper on historical trends, LO#1). The course assignments are:

- Assignment #1: Reflection paper on topic of understanding historical trends
- Assignment #2: Reflection paper on topic of understanding reclaiming children
- Assignment #3: Reflective paper on book "Protecting Aboriginal Children"
- Assignment #4: Term research and reflective paper on a topic related to child welfare.

Lastly, outside of the course assignment circle is a final circle which lists the institutional goals of NEC (as stated in the previous section of this paper). Together, the concentric circles comprise the main aspect of our medicine wheel assessment model.

The concentric circles of the medicine wheel assessment model are flanked by several boxes that elaborate on the four domains (mental, spiritual, physical, and emotional). These boxes are situated in each corner of our medicine wheel assessment model and they list the components that comprise each domain. These components are broken down into specific assessment-related aspects for each assignment, with numerical points attached to each aspect. Included in each box is a reflective question to assist students' understanding of each domain.

Mental Domain

The components comprising the mental domain *[Figure 2]* include: critical thinking; research; resources; and analysis. The assessment aspects of the

Mental (25 marks)

- Create and explain your argument (5)
- Stay on topic (time spent on topic too much, too little) (5)
- Apply relevant resources (5)
- Cite references (using a style of your choice i.e. APA, MLA)(5)
- Apply essay structure to your paper or project (paragraphs, title, reference list) (5)

Mental

- Critical Thinking
- Research
- Resources
- Analysis

Question: What do I think and what do others think?

Figure 2. FCC 240 Child Welfare Medicine Wheel Assessment Model: Mental Domain Components

Spiritual (25 marks)	Spiritual
- Recognize others' traumas and the trauma created by the child welfare system (5) - Demonstrate understanding of cultural diversity in the context of child welfare (5) - Relate your values and beliefs to the topic (5) - Express inner thoughts and feelings (5) - Define your own spirituality as it relates to the topic (5)	- Respect (self and others) - Reflection - Self-awareness Question: What does this mean to me, my values, culture(s), and spirituality?

Figure 3. FCC 240 Child Welfare Medicine Wheel Assessment Model: Spiritual Domain Components

mental domain include: create and explain your argument (5 points); stay on topic (5 points); apply relevant resources (5 points); cite references (5 points); and apply essay structure to your paper or project (5 points). The reflective question for the domain is: "What do I think and what do others think?"

Spiritual Domain

The components comprising the spiritual domain *[Figure 3]* include: respect (self and others); reflection; and self-awareness. The assessment aspects of the spiritual domain include: recognize others' traumas and the trauma created by the child welfare system (5 points); demonstrate understanding of cultural diversity in the context of child welfare (5 points); relate your values and beliefs to the topic (5 points); express inner thoughts and feelings (5 points); and define your own spirituality as it relates to the topic (5 points). The reflective question for the domain is: "What does this mean to me, my values, culture(s), and spirituality?"

Emotional (25 marks)	Emotional
- Balance between how you feel and what you know (position yourself subjectively) (6.25) - Discuss feelings coming up in course, related to topic (6.25) - Describe learning from emotions and feelings (6.25) - Apply personal feelings to topic to channel your energy (6.25)	- Personal balancing/harmonizing and growth Question: What are my feelings and emotions and how do I identify and apply them in my learning about myself and the subject?

Figure 4. FCC 240 Child Welfare Medicine Wheel Assessment Model Emotional Domain Components

Emotional Domain

The components comprising the emotional domain *[Figure 4]* include: personal balancing /harmonizing/ growth. The assessment aspects of the emotional domain include: balance between how you feel and what you know (6.25 points); discuss feelings coming up in course related to topic (6.25 points); describe learning from emotions and feelings (6.25 points); and apply personal feelings to topic to channel your energy (6.25 points). The reflective question for the domain is: "What are my feelings and emotions and how do I identify and apply them in my learning about myself and the subject?"

Physical Domain

The components comprising the physical domain *[Figure 5]* include: interactions with community; and participation. The assessment aspects of the physical domain include: relate resources from community to topic (12.5 points); and demonstrate engagement with activities (12.5 points). The reflective question for the domain is: "How did I arrive at what I know?"

Generating Our Medicine Wheel Model

We generated the content for our medicine wheel assessment model by asking ourselves, "What are the key components that comprise each domain (mental, spiritual, physical, and emotional) that students are required to demonstrate in their assignments for the course?" For each domain, a list was generated. We then considered how each component in each domain could be broken down into key aspects. We decided that these aspects would be used to assess students' learning, as demonstrated within their assignments. Next, one key reflective question for each domain was generated, with the goal of assisting students to understand each domain and the specific aspects being assessed.

Generating the reflective questions was the most challenging aspect of developing the medicine wheel assessment model. We struggled to reach consensus on one question for each domain that would help students conceptually understand the aspects of that domain. This may have resulted because of our diverse ways of conceptualizing links between abstract concepts and assessment criteria. Despite the challenge, we believed that it

Physical (25 marks)	**Physical**
- Relate resources from community to topic (12.5) - Demonstrate engagement with activities (i.e., asking questions in paper, project) (12.5)	- Interactions with community - Participation Question: How did I arrive at what I know?

Figure 5. FCC 240 Child Welfare Medicine Wheel Assessment Model Physical Domain Components

was important to generate a question that would help students to connect their ideas and understanding of a concept to what was expected of them for assessment purposes. The final step involved embedding the four domains of the medicine wheel assessment model into a larger context that took into consideration the goals of FCC 240, the institutional context and goals of NEC, and other cultural references.

Through the process of examining different medicine wheel models and developing our own medicine wheel model, we shared our perspectives on the aspects of different models that we struggled with, for various reasons. For example, Jair believed that the concept of the four races (red, brown, white, black) was important, but he did not believe that the races should be attached to the four particular directions (north, south, east, west) on our medicine wheel. This prompted us to separate other aspects that are commonly found in medicine wheels including the four directions, four races, and the four seasons and to include them in our medicine wheel model as another context, wherein interconnections are seen and experienced in the natural world. These three aspects (seasons, races, and directions) were embedded as another layer outside of our medicine wheel, rather than imposed on the four domains of our medicine wheel.

Benefits of the Medicine Wheel Assessment Model

Given the historically negative role that education has played in the lives of Aboriginal learners, as well as research on the importance of cultural context in education and educational assessment, it is important to develop culturally sensitive methods to support Aboriginal learners. Educators need to be sensitive to the "ways European knowledge dominates the academy and open to disrupting this domination" (Dumbrill & Green, 2008, p. 490). We also need education systems that respect Aboriginal peoples, include programs and curricula that are relevant to their views of the world, support reciprocity in their relationships with others, and encourage personal responsibility (Harris, 2006; Kirkness & Barnhardt, 1991).

Researchers have found that students are more successful when culturally relevant curricula are used (Ortiz & Boyer, 2003). Ladson-Billings (1994) proposes the concept of culturally relevant teaching, which "is a pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes" as a way to support indigenous knowledge development (p. 17). To use assessment to open up as many opportunities to as many students as possible, methods and models of assessment must consider multiple talents, life experiences, and diverse ways of knowing (Shaw, 2005). By focusing on culturally relevant assessment, educators can help to ensure that assessment reflects and incorporates diverse Aboriginal students' cultural orientations, preferences, and different ways of demonstrating learning (Shaw, 2005). Not only does culturally relevant assessment create

new opportunities and spaces for learning, but it also helps to create an environment where Aboriginal youth can engage in and take responsibility for their learning. Taiaiake Alfred (2005) proposes that "mental awakening through the promotion of knowledge and the reassertion of a social environment where children and youth are encouraged to seek out and listen to knowledge, to learn from it, and to practice it" is one of the ways to unleash and re-birth the "warrior...inside and among" Indigenous youth (p. 87). Culturally relevant assessment is one way that educators can aim to create spaces and places where Indigenous youth can reconnect to sources of strength, including their cultures, languages, and spiritualities.

In FCC 240, the use of the medicine wheel assessment model directly communicated to students that all aspects of their being were being privileged in the assessment of their learning. This gave students permission to let go of focusing solely on traditionally perceived academic expectations around academic writing, grammar, and presentation of ideas, and allowed students to create a space where they could write about less-valued aspects of learning, such as their beliefs, values, and reflections. In addition, some students began to use the medicine wheel as an organizing concept to present their ideas while others took it upon themselves to learn more about the teachings of the medicine wheel. The medicine wheel assessment model also served as a vehicle for conversations about spirituality; students began to reflect on their own spiritual teachings and, in some cases, their feelings of loss and disconnection to any form of spirituality. Although the medicine wheel assessment model was created to help make assessment more culturally relevant, it served a variety of unexpected purposes in the context of FCC 240.

Conclusion

The development of a course student assessment model, based on the concept of the medicine wheel, is one way that we at NEC have tried to support Aboriginal youth as future warrior-learners and promote institutional change and educational reform, which are necessary actions to realize Taiaiake Alfred's earlier-noted proposal. By drawing on the concept of the medicine wheel, which privileges healing, interconnectedness among things, and the whole person, we are striving to support Aboriginal learners. In pursuit of the development of assessment strategies that support Aboriginal learners, Fox (1999) states that "we must try new methods of assessment that are being created... and we must evaluate proposed methods to find the best ways to assess the learning of [Aboriginal] students" (p. 162). Educators need to involve all stakeholders, including parents and Aboriginal community members, in making assessment more culturally relevant (Fox, 1999). We believe that as teachers and curriculum developers become better informed, they will develop more culturally relevant assessment activities and measures to monitor student learning (Yazzie, 1999).

Aboriginal adult education centres in urban areas enroll Aboriginal peoples of different cultures, who speak different languages and have different identities. Thus, while many of these centres are drawing on the concept of the medicine wheel as a way to help their students, the focus on the medicine wheel and spirituality in particular may promote pan-Indianism (Haig-Brown, 1995; Orr, 2000). Without being sensitive to the differences of Aboriginal students, the concept of the medicine wheel may become a barrier to supporting Aboriginal students' engagement and may silence their unique cultural perspectives (Orr, 2000). The experience of one group of nine students in one course (FCC 240) at one institution (NEC) cannot be used to anticipate the responses of all Aboriginal students in a given cultural context. Our model can only be used in the particular context and for the particular students for which it was developed. As Fryberg & Markus (2007) state, "some individuals in a given context are likely to incorporate a given understanding of education, while others may contest or reject it" (p. 241). "Each person will also be influenced by the meanings and practices associated with other cultural contexts [including] gender, age, and social class" (Fryberg & Markus, 2007, p. 241). What students learn depends on how they view learning and education, their relationships to teachers, and themselves with respect to education (Fryberg & Markus, 2007).

In the context of our medicine wheel assessment model, we acknowledge that, like all assessment practices, the ideas and the framework that we generated are not static (Harris, 2006); they will change with the knowledge, experience, and needs of the specific students who enroll in FCC 240 each year. We have developed a model that proposes a starting place to think about culturally relevant assessment, in one particular classroom at one particular institution. There are still questions that need to be explored, particularly around the impact of the medicine wheel assessment model on student learning in FCC 240 and on the relevance of the medicine wheel itself for the diverse Aboriginal learners in FCC 240 at NEC.

Based on our experiences, we believe that educators who actively and critically engage in curriculum development (including assessment practices), particularly in collaboration with Aboriginal communities, are likely better able to develop and implement assessment procedures that are more culturally appropriate because they can consider the specific context that students are working in and students' individual needs (Yazzie, 1999). We also believe that educators are in a position to claim ownership of what goes on in their classrooms; from this position, they are responsible for considering the development of culturally relevant assessment to support educational reform (Yazzie, 1999). We hope that our efforts to develop a course assessment model based on the medicine wheel, for students enrolled in FCC 240 at Native Education College have contributed to educational reform by supporting more culturally relevant learning for one group of students, in one classroom, at one institution.

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