

## **INFORMATION TO USERS**

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

**The quality of this reproduction is dependent upon the quality of the copy submitted.** Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

ProQuest Information and Learning  
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA  
800-521-0600

**UMI<sup>®</sup>**



**A Study of the Development and Formative Evaluation of the  
Miyupimaatisiiuwin Curriculum.**

**Barbara Reney**

**A Thesis  
in  
The Department  
of  
Education**

**Presented in Partial Fulfillment of the Requirements  
for the Degree of Master of Arts at  
Concordia University  
Montréal, Québec, Canada**

**March 2001**

**©Barbara Reney, 2001**



**National Library  
of Canada**

**Acquisitions and  
Bibliographic Services**

**395 Wellington Street  
Ottawa ON K1A 0N4  
Canada**

**Bibliothèque nationale  
du Canada**

**Acquisitions et  
services bibliographiques**

**395, rue Wellington  
Ottawa ON K1A 0N4  
Canada**

*Your file Votre référence*

*Our file Notre référence*

**The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.**

**The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.**

**L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.**

**L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.**

**0-612-59244-8**

**Canada**

## **ABSTRACT**

### **A Study of the Development and Formative Evaluation of the Miyupimaatisiiuwin Curriculum.**

**Barbara Reney**

**A First Nations' view of health encompasses spiritual, interpersonal, physical and intellectual components. It is believed that for a person to be truly healthy, they must achieve balance and strength in all four aspects of their being – spirit, heart, body and mind.**

**This thesis discusses the processes involved in the development of lessons and the evaluation of the “Miyupimaatisiiuwin”, Cree-specific, primary and secondary school health curriculum. This educational package provides teachers and students in Northern Québec Cree community schools with a range of educational activities that allow them to practice various ways to develop the skills necessary to make healthy life-style choices. An overview of the client and reasons for the creation of the curriculum are discussed. Although this curriculum was developed by a team, this thesis describes the contributions made by the author to the development and evaluation of this curriculum material.**

**The design and development of this curriculum was guided by research on First Nation learning styles, health issues and curriculum design, already existing First**

Nations' and mainstream health education materials, Cree and non-Cree health and education professionals, and various members of the nine Northern Québec Cree communities. Evaluations and an expert review were conducted. All the data obtained was examined and incorporated in revisions where appropriate. A list of recommendations for further development and implementation are included.

## **Acknowledgements**

**I dedicate this work to those who illuminated the way and to Ayisha Lilis, my daughter, who kept me attached to the earth, is a constant source of inspiration and without whom my world would be much dimmer.**

**Thank you**

### ***Disclaimer***

***The conclusions and recommendations put forth in this thesis are those of the author alone. They are based on an analysis of the combined input and feedback obtained throughout the curriculum development and expert review processes. They do not necessarily reflect individual opinions of the development team members or other parties mentioned herein.***

## **TABLE OF CONTENTS**

List of Figures	ix
<b><i>Chapter 1</i></b>	
Introduction	1
2. Client Background	2
2.1 Cultural overview	2
2.2 The Grand Council of the Crees (GCC)	3
2.3 The Cree Board of Health and Social Services James Bay (CBHSSJB)	5
2.4 The Cree School Board (CSB)	6
3. The Problems	9
3.1 Unhealthy lifestyle risks	9
3.2 Non-Cree specific educational materials	9
3.3 Health education not a priority for teachers and administrators	10
3.4 Obtaining permission to teach sex education is a problem	10
3.5 Suicide and substance abuse topics considered too delicate	10
3.6 Existing Cree specific nutrition education lessons not used	11
3.7 Minimal Cree representation on student worksheets	11
<b><i>Chapter 2</i></b>	
4. Literature review	12
4.1 Cree culture	12
4.2 Learning Styles	14
4.3 Curriculum design	17
4.4 Formative evaluation	20



### **Chapter 3**

<b>5. Tentative Solution</b>	<b>23</b>
<b>5.1 New health curriculum materials</b>	<b>23</b>
<b>5.2 Curriculum specifications</b>	<b>25</b>

### **Chapter 4**

<b>6. Development Process</b>	<b>26</b>
<b>6.1 Research and appraisal of already-existing curricular materials</b>	<b>26</b>
<b>6.2 Population and needs analysis</b>	<b>34</b>
<b>6.3 Curriculum design</b>	<b>36</b>
<b>6.4 Lesson development</b>	<b>39</b>
<b>6.5 Resources</b>	<b>43</b>
<b>6.5.1 <i>Miyupimaatisiiuwin Let's Live Well</i> tape and songbook</b>	<b>44</b>
<b>6.5.2 <i>Miyupimaatisiiuwin 4Kids</i> activity book</b>	<b>46</b>
<b>6.5.3 <i>Miyupimaatisiiuwin Solvent Abuse Prevention</i> Activity Books</b>	<b>47</b>

### **Chapter 5**

<b>7. Evaluation processes</b>	<b>49</b>
<b>7.1 Ongoing formative evaluations</b>	<b>49</b>
<b>7.2 1997 - 1998 - Formative evaluation of the first draft</b>	<b>50</b>
<b>7.3 1999 - Expert review</b>	<b>51</b>
<b>7.3.1 Internal SMEs</b>	<b>52</b>
• <b>School Principals</b>	<b>52</b>
• <b>Teachers</b>	<b>53</b>
• <b>Health workers.</b>	<b>54</b>

7.3.2 Semi - external SMEs	55
7.3.3 External SMEs	57
8. Revision	59
<b><i>Chapter 6</i></b>	
9. Conclusion	62
10. Recommendations	62
11. Constraints	69
References	71
Appendices	
Appendix A Author's Role	78
Project Timeline and Activities	80
Appendix B Educational and research materials examined	86
Appendix C Lesson Sample	90
Student activity sheet samples	93
Appendix D Communication routes	95
Appendix E a) Expert review process letter (to SMEs)	96
b) Expert review community contacts	97
c) List of Subject Matter Experts (SMEs)	98
Appendix F Expert Review process feedback	101

## **LIST OF FIGURES**

<b>Figure 1. Flow of funding</b>	<b>4</b>
<b>Figure 2. Roles of Canadian, Quebec and Cree entities</b>	<b>8</b>
<b>Figure 3: Curriculum design focal system</b>	<b>24</b>
<b>Figure 3. Medicine Wheel</b>	<b>37</b>
<b>Figure 4. Curriculum Design</b>	<b>38</b>

*“Health is a basic human right and is essential for social and economic development”*

*(Jakarta Declaration, WHO, 1999).*

## ***Chapter I***

The World Health Organization characterizes a health-promoting school as one that “is constantly strengthening its capacity as a healthy setting for living, learning and working” (World Health Organization, 1998). The Miyupimaatisiiuwin Curriculum is a culturally specific educational undertaking to establish and sustain such an environment in Cree schools of Northern Quebec, Canada.

The “Miyupimaatisiiuwin”, Cree-specific, primary and secondary school health curriculum provides teachers and students in Northern Québec Cree community schools with a range of educational activities through which they may practice developing the critical thinking and communication skills necessary to make healthy life-style choices. There are sixteen experiential lessons across nine grade levels, K-8, supported by student worksheets, books, games, as well as audio and visual resource materials.

The Cree word Miyupimaatisiiuwin was chosen for the curriculum title as it means to be alive well. Cree Elders tell us that, historically, the word used to describe the

state of having enough of the right kind of food to eat so as to be strong and physically able to do daily tasks. It also implies a spiritual component with a wholistic approach to health and well-being that goes beyond the World Health Organization's definition (Adelson, 1991). For Cree people of the nine Northern Quebec communities, known as "Eeyou Istchee", good health is also closely tied to having a strong "sense of self" as an individual and as an active member of Cree culture and lifestyle.

## 2. Client Background

### 2.1 Cultural overview

Until the latter half of the 20<sup>th</sup> century, most Northern Quebec Cree families lived on the land, hunting, fishing and trapping. Each Cree family inhabited an historically recognized area of land, measuring about 150 square miles, rotating trap lines on four-year cycles to avoid animal extinction (Knutson & Suzuki, 1993). Traditionally, Cree people did not live in large, structured and stationary communities year round. Several groups may have settled beside a particular body of water for the summer months but then each individual family went their separate ways returning to the bush for the winter. Although Cree people traveled great distances following migrating animals, they always maintained strong ties to land their families had lived on for generations.

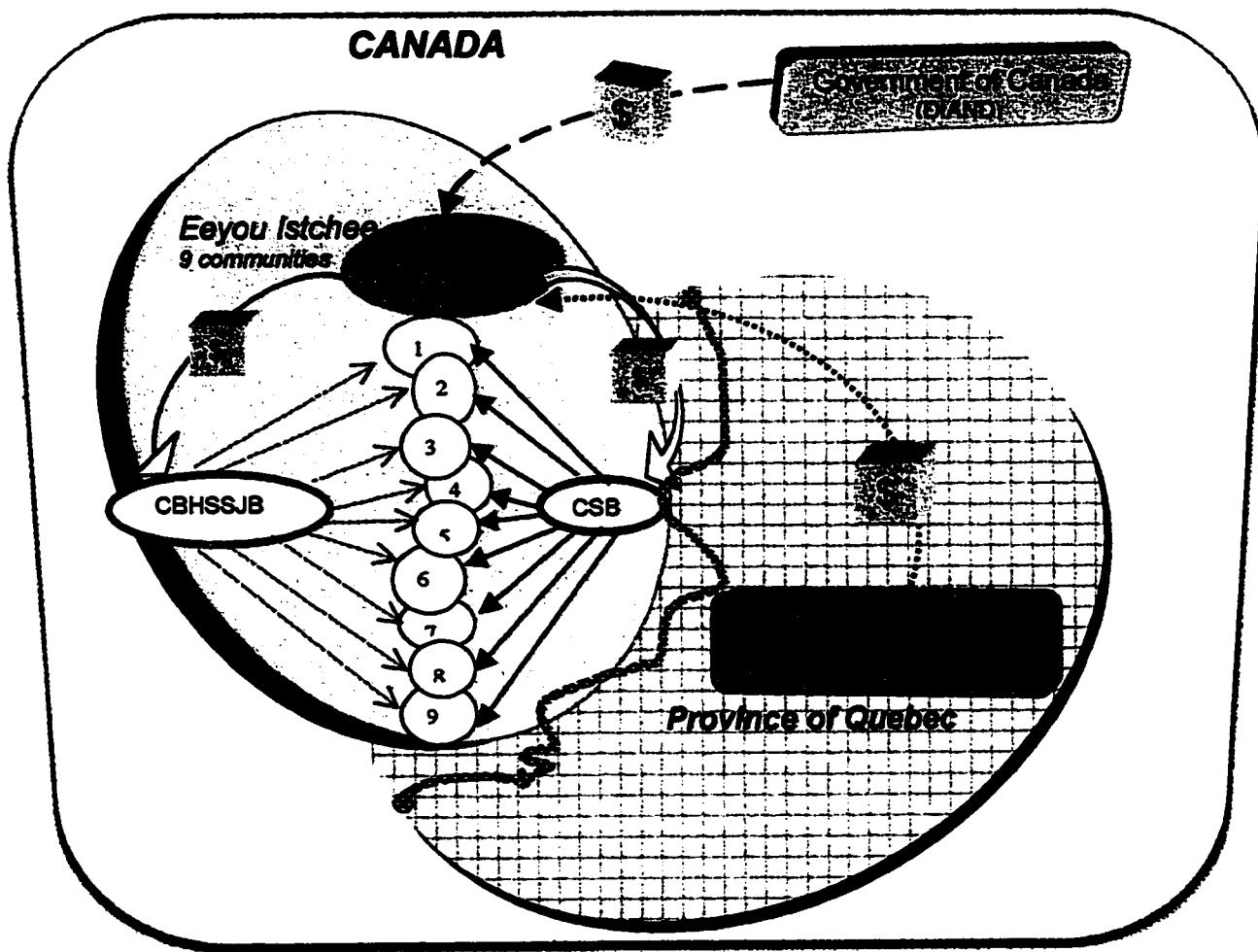
Until very recently, there were no modern communication systems such as television or telephone; there were no skidoos or snowmobiles, video games or CD players. Today many of the government issue homes have satellite dishes to receive aall the popular television channels, people carry cell phones and junk food is readily available. Cree youth today wear the latest fashions, surf the net, know and create popular music much like southern non-Cree youth the same age.

Many Cree feel this rapid change in lifestyle is helping to widen the gap between youth and Elders. This loss of connection may result in a further loss of traditional ways and values. Some believe that these radical changes in such a short period of time are in part responsible for the unhealthy lifestyle choices being made by youth today.

## **2.2 The Grand Council of the Crees (GCC)**

The threat of destruction of their land by the first Hydro Quebec project in 1974 prompted members of the Eastern James Bay Cree to establish a unified political voice. Today this voice is represented in the Grand Council of the Crees (GCC). It oversees all socioeconomic and political issues concerning Eeyou Istchee. In 1975, the GCC, the Quebec and the Canadian governments signed the James Bay Northern Quebec Agreement (JBNQA), which has been recognized as the first modern-day treaty. The

JBNQA agreement defines vast rights and responsibilities for all parties. It ensures the rights of Cree people to determine and deliver their own health services and education programs. Provincial and federal governments provide the GCC funding and some management guidelines (see Figure1)



\$ from CSB to 9 community schools ———>      \$ from CBHSS to community health clinics - - - ->  
 A representation of an outline of Eeyou Istchee within the province of Quebec.

Eeyou Istchee - The nine Cree communities

1 = Whapmagoostui	3 = Wemindji	5 = Nemiscua	7 = Mistissini	9 = Waswanipi
2 = Chisasibi	4 = Eastmain	6 = Waskaganish	8 = Oujé-Bougoumou	

Figure 1: Flow of funding from provincial and federal governments to the GCC; distribution of funding by the GCC to the CSB and the CBHSS; flow of funds to community schools and clinics.

### **2.3 The Cree Board of Health and Social Services James Bay (CBHSSJB)**

**The CBH[SSJB] oversees all health and social issues that concern Eeyou Istchee. The primary health concerns of the CBH are diabetes and mental health. These health issues manifest in serious physical health problems, lower academic success and dysfunctional interpersonal relationships between family and community members. Specific conditions are found in substance abuse, suicide and parasuicide, violence, accidents, teen pregnancies and STDs.**

**The Public Health Module Cree Region (PHM), located in the Montreal offices of the GCC, functions as a link between the CBHSS and QMHSS. Appendix D shows the communication routes between the PHM and the Cree communities. The PHM conducts research and offers training to community health personnel. It also maintains the health clinics with staff, equipment and health promotion materials (see Figure 2).**

**Health promotion materials in the form of pamphlets, posters and videos obtained through the federal and provincial governments, as well as private organizations, address such issues as nutrition, sexually transmitted diseases, cigarette and substance abuse, physical activity, and diabetes. While some health promotion posters do reflect the images of Eeyou Istchee, most health informational materials are not Cree-specific. They**



are designed and distributed to the general population as they can be found in most CLSC's or health clinics, hospitals and schools throughout Quebec and Canada.

#### **2.4 The Cree School Board (CSB)**

The CSB is responsible for the education of Cree students in primary and secondary schools in the nine Northern Quebec Cree communities. It oversees the hiring of all administrators, teachers and support personnel. A team of pedagogical staff develop some educational materials and translate English or French materials for use in Cree classes. They authorize the production and, or, implementation of educational materials used by teachers (see Figure 2).

There already exist four curricula developed by people in the communities. Those curricula are: the Cree Language (L1) or CLIP program materials, Cree culture and a Nutrition program adapted to James Bay Cree as well as a first cycle, primary curriculum built around traditional, seasonal events. The latter helps students build Cree vocabulary through social study activities but does not address concrete health issues.

The 1975 James Bay Northern Quebec Agreement (JBNQA) ensured Cree control over Cree education. However, classroom educational materials are still expected to

meet the MEQ requirements in terms of subject, time allocated to deliver the lessons and student evaluations.

As Cree-specific curricula have not been developed for all subjects, some teachers use a variety of educational materials which they feel meet the MEQ standards. The pedagogical staff distributes some of these materials while some are selected by teachers from a variety of sources. These are non-Cree and may originate from mainstream Canadian or American sources.

The 1997 CSB report shows the population and composition of primary and secondary level teachers working in Cree schools to be a total of 292 with 166 being non-Cree and 126 Cree indicating that non-Cree still outnumber Cree educators, the majority being at the high school level. Conversely, Cree teachers outnumber non-Cree at the primary level. The July 1999 JBNQA beneficiaries' list of Cree residing in the communities indicates there is a total of 3,886 school-aged youth.

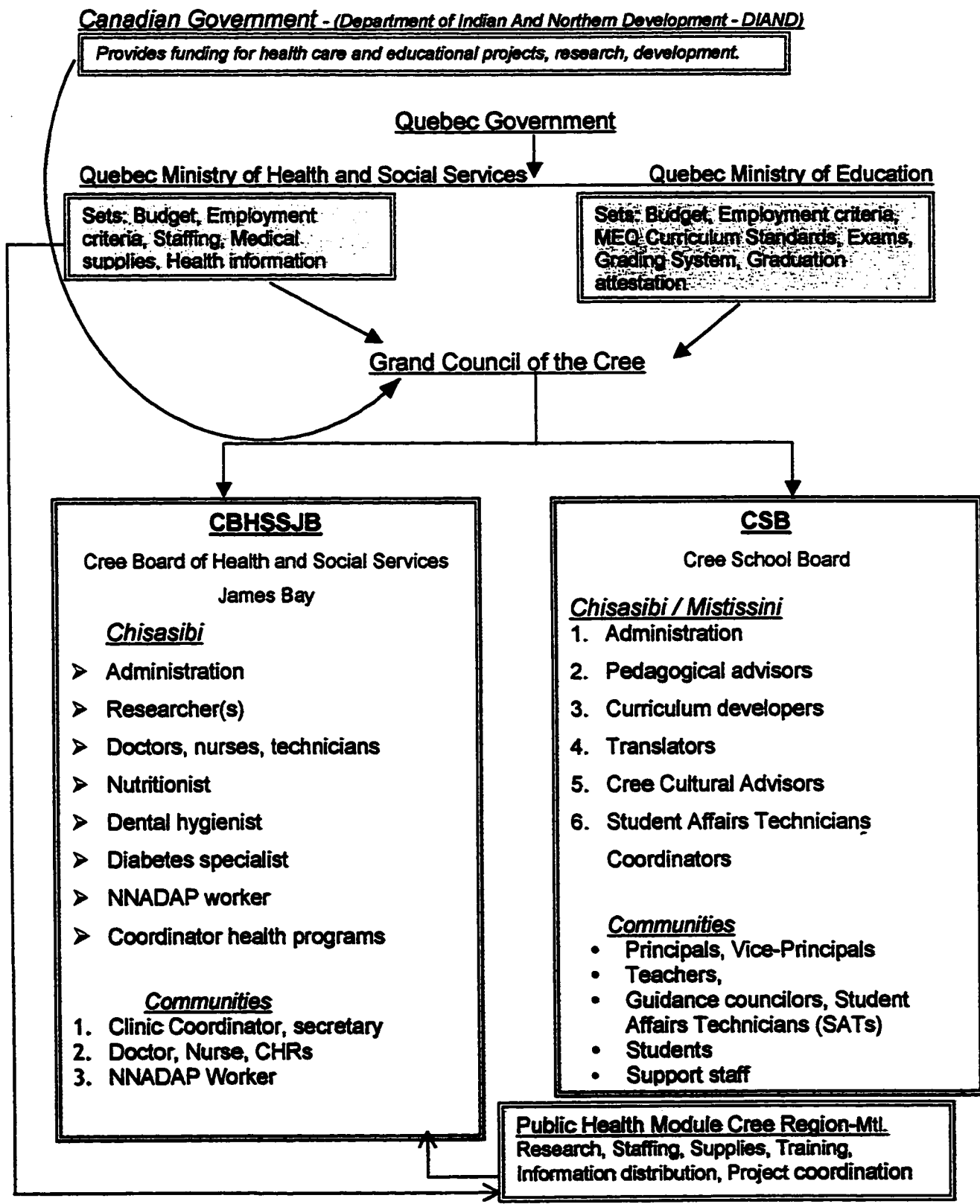


Figure 2: Roles of Quebec and Canadian governments and the Grand Council of the Cree entities.

### **3. The Problems**

**Information gathered from CSB faculty, staff and administrators, CBH health and social workers, students, parents, Elders and community members revealed the following areas of concern.**

#### **3.1 Unhealthy lifestyle risks**

**Solvent, substance, physical and sexual abuse, poor nutritional awareness and diabetes, teen pregnancies and sexually transmitted diseases (STDs), accidents, suicide and parasuicide are some of the risks. As interrelated behaviors, all result in poor health, compromised educational outcomes, and dysfunctional social relationships.**

#### **3.2 Non-Cree specific educational materials**

**The Personal and Social Development (PSD) and the Moral and Religious Education (MRE) programs, as health related educational programs recommended by the Quebec Ministry of Education (MEQ), do not correspond to the specific needs of Cree youth. While deemed appropriate for most mainstream schools, these materials do not reflect Cree culture or lifestyles, learning needs and the health issues particular to remote Cree communities in Northern Quebec.**

### **3.3 Health education not a priority for teachers and administrators**

School principals and teachers cite a lack of time available during a school week, student behavior problems, and the inappropriate cultural context of the available materials as reasons why PSD and MRE education are not given a high priority. The MEQ and the school have scheduled in a specific time for teaching this subject each week, which is credited in the students' school reports, but other subjects have priority.

### **3.4 Obtaining permission to teach sex education is a problem**

While sexual abuse, STDs, and high teen pregnancy rates are stated concerns, obtaining community permission to deliver sex education in the classrooms is often difficult. Some community members feel this topic should be left for parents to teach to their children. However, many children are placed in over-crowded foster homes while parents live on the land and some foster parents feel uncomfortable or unqualified to take on this role with foster children. Also, some teachers feel uncomfortable teaching sex education to their students.

### **3.5 Suicide and substance abuse topics are considered too delicate to talk about openly by some teachers, students, and community members.**

Some community members are reluctant to discuss these serious issues with students out of concern that doing so may prompt students to choose these unhealthy

behaviors instead of professional help when they need it. Some students have lost family or friends to suicide, know someone or are themselves involved in substance abuse, and so educators are reluctant to introduce these themes in class in case students become depressed or even hostile.

### **3.6 Already-existing Cree specific nutrition education lessons not always used**

Although all primary grade (1-6) teachers and CHRs have lessons from the Cree-specific Nutrition Program to deliver throughout the year, this is not always used. It has been suggested that teachers and CHRs team-teach some of the topics so as to improve relations between the health and education entities, and to allow each to be on the same page regarding health issues, yet this does not often happen. There was also some concern expressed regarding the accuracy of some of the health information delivered by the CHRs as well as their lack of teacher training.

### **3.7 Minimal Cree representation on CSB produced student worksheets**

While great importance is placed on the need for the predominance of Cree culture throughout the educational materials, much of these are not particularly Cree-specific.

## ***Chapter 2***

### **4. Literature review**

There are important differences between Cree and non-Cree students due to physical environment, language, and lifestyles but they may also be due to differences in styles of information communication and processing. Research into Northern Quebec Cree culture, population analysis, needs assessment, an examination of existing First Nations' educational material as well as research into First Nations' learning styles helped guide decisions about health themes, lesson content and suggested teaching methodologies, student learning activities, and the selection of resource materials.

#### **4.1 Cree culture**

The traditional Cree worldview is that existence has always been guided by the sacred, wholistic, interconnectedness of all things (Berkes, 1989; Goddard, & Shields, 1997; McCaskill, 1987). It is believed that the relationships among all life forms are more fluid than in mainstream cultures. All things are alive and are believed to have the same qualities of character and temperament as human beings (Knudtson & Suzuki, 1993). This belief enters all aspects of life including health and education.

In *The Basis of Communication* (1951), communications, cultural and economics theorist Harold Innis described this worldview as “time-binding”, as the orientation of a people who share an intimate historical culture rooted in symbols of oral tradition, mytho-poetry, religion, rituals and communities rooted in place. Innis placed time-binding cultures, such as First Nations, in opposition to space-binding cultures, like Euro-Americans, whose “predominant interest rests in land as real estate, voyage, discovery, expansion, empire and control” (Carey, 1975, p.36).

Prior to the saga of residential schools, when First Nation children were forcibly removed from their families and placed in government and church run institutions to receive European-style education (Ennamorato, 1998) education was experienced through daily activities in small familial settings (Matthews, 1997). The main teaching methodologies were role modeling of important life-skills by competent practitioners, context-based, hands-on experiences, and storytelling. As a “time-biased culture”, Cree knowledge was shared through oral tradition and cooperative group work. Children learned by watching, listening and then doing when they were ready (Berkes, 1989).

Shared knowledge, the Cree language and enduring sense of community is what has bound Cree people together, to their ancestors and the land for generations (Weistche, 1997). As happened in other First Nation cultures, the introduction of print-based



communication upset the cultural orientation based on relationships and time as it initiated a shift from the time-biased culture of oral tradition to the spaced-biased culture of written tradition (Valaskis, 1992). This has important implications in how learning materials are designed and implemented in Cree communities.

## 4.2 Learning Styles

Literature has not set a singular learning style to any one race because these are dependent upon many biological, cultural, and personality factors (Bennett, 1990; More, 1989). However, it is important to consider the kinds of learning activities and materials that appear to stimulate interest and result in academic achievement in a variety of First Nations' environments. Findings suggest that First Nation students have a wide range of learning styles, yet academic outcomes are better when learning activities are hands-on and relevant to the specific cultural context (Perkins & Salomon, 1989).

In her presentation to the First Anishnaabe Kinoomaagewin Curriculum Development Workshop of First Nations Schools, Ojibwe school administrator and elementary school teacher, Pauline Toulouse expressed concern that standards and guidelines set by the Ontario provincial school system have consistently failed First Nation students. Inaccurate assessments and refusing to acknowledge even the possibility of distinct First Nation learning styles has inappropriately placed many

students in Special Education programs (1997). As Armstrong (1988) pointed out, unjustly learning disabled (LD) labeled kids are “often non-verbally creative; better than average at visual-spatial tasks and are talented in mechanical, architectural, musical and athletic pursuits”(p. 224).

Many mainstream educational systems, teaching methods, as well as teaching and learning materials focus more on students' language and logic abilities. Yet determining students' academic success or failure based on their abilities in linguistic and logical-mathematical intelligences denies the value of talents in other areas such as visual, spatial, musical, bodily-kinesthetic, interpersonal and intrapersonal intelligences (Gardner, 1993; Lalonde, 1995). In their 1995 article, *Predicting Academic Success for American Indian Students*, Dingman, Mrocza, and Brady point out that First Nation children appear to score higher on non-verbal or visual components than on the verbal portions of standard intelligence tests.

In his study on brain dominance and learning styles of Navajo and Hopi students, Rhodes (1990) reports that the academic success rate of First Nation students in the formal western education systems both on and off reserve is poor. He suggests this may be due to incompatibility between student learning styles and the teaching styles and materials used.

Of 101 Navajo and 98 Hopi student participants, 62% and 64% respectively showed to be more right brain dominant. The strength of these students lies in the intuitive/insightful, visual/spatial, musical, global processing, random/concrete, kinesthetic abilities. As such, they respond better to a more global, intuitive approach to learning with hands-on experiences instead of the linear presentation, passive textbook and lecture format, scope and sequence approach used in most schools. In their examination of First Nation college students, Walker, Dodd, & Bigelow (1989) found that their learning style preferences show an underlying cognitive strength for simultaneous processing, their ability to internally visualize the interactions of multiple variables simultaneously (Dingman, Mroczka, & Brady 1995).

Zwick and Miller (1996) discuss their results from a study on two fourth grade classes in the Hardin School District in Montana, which were considered representative of this grade level in the Hardin Districts. There were a total of 49 students, First Nation and mainstream, divided into experimental and control groups (24/25). The experimental class was given hands-on experiential learning activities and the control class was given teacher-centered and text-based learning activities. Although only a small sample was used, the results indicated improved academic outcomes for the First Nation students in the experimental group using the hands-on, activity-based curriculum whereas the mainstream students involved showed no difference between the two approaches.

Presentations and discussions by First Nation and non-First Nation teachers at education conferences attest to a strong belief that First Nation students differ in regard to their learning styles (Swisher, 1994). Results from a 1990 survey of 154 First Nation and non-First Nation teachers revealed that 91% believe that cultural values strongly influence how students approach learning. Nelson-Barber and Trumbull Estrin (1995) also believe one's immediate environment and daily activities affect learning styles.

The idea that culture influences cognition is not new. In 1978, Troike claimed that culture was responsible not only for language and ability to communicate but it also influences cognition, attitudes, and motivation (Zwick & Miller, 1996). Although many of today's Cree youth are comfortable with modern technology and fashions, their cognitive processing styles and social interaction patterns are strongly influenced by Cree culture. How to "be" in the world, how to communicate with other Cree of all ages, other First Nations people and non-Natives, as well as how to interpret reality is distinctly Cree and as such is different from all other nations (Bopp, Bopp, & Lane, 1984).

#### 4.3 Curriculum design

In her article on comprehensive health education programs, Susan Black (1997) states that "there's little hope that a one-shot course will turn kids into critical thinkers and problem solvers" (p.42), which are essential characteristics for understanding and

using health information to improve the quality of life. Black also points out that school health programs will result in better student attitudes and behaviors if they're "reinforced through community partnerships" (p.43).

Criteria offered by McCaskill (1987) to help guide the development of a First Nation curriculum states that it must be based in the culture. It must reflect the teaching methods, learning styles, language, and worldview. The specific cultural values and identity must be developed and reinforced. In her article on American Indian Cultures and the Classroom, Van Hamme (1996) sites Bull, Fruehling and Chattergy's (1992) definition of culture as "the beliefs, characteristics, activities, fundamental values and outlooks, preferred ways of living, and aspects of personal identity shared by a group"(p.25).

McCaskill (1987) points out that a First Nations' approach to education focuses on the development of the whole person, meaning the total spirit, total heart, total body and total mind. However, to be effective, this must be carried out as a "totally integrated approach, in the complete community and extended family environment."(p.154). This is in contrast with mainstream educational and cultural philosophy which, as Oliver and Gershman (1989) point out, is "unbalanced because the dominant North American culture holds a deep distrust of wholistic styles of understanding..." (Regnier, pp.383-4).

The Four Worlds Development Project, a consortium of First Nations Elders, cultural and educational experts, recommends designing First Nation students' learning experiences so that they are project-centered, hands-on and include the arts. Characteristics of the project-centered approach are that they are wholistic, integrative, individualized, cooperative, practical, and culturally relevant (Bopp, Bopp, & Eagleday, 1989). Project-centered learning activities that are culturally situated and within a practical context can accommodate the individual learning and communication styles of students and teachers (Gardner, 1993; Jasmin, 1996; Perkins & Salomen, 1989).

As much traditional First Nation learning occurred through observation, there need to be capable and respected practitioner role models for students to observe over time. This way, when students feel ready or comfortable with a particular task they can then try to perform it themselves (McCaskill, 1987; Rhodes, 1990; Swisher & Deyhle, 1992; Van Hamme, 1996).

Bopp, Bopp, and Eagleday (1989) and Perkins and Salomen (1989) claim that when learning activities are hands-on and context based it is more likely that students will demonstrate a positive attitude towards self and others. They assert students hold a stronger spirit of cooperation and teamwork, show an acceptance of personal responsibility, accountability, and the ability to initiate and direct their own learning.

The development of body awareness, strength, health and competency is closely tied to academic success. This can only be achieved through the development of self-expression through the visual, spatial, musical and bodily kinesthetic intelligences, as expressed in art, music, dance, drama, and writing. As expressions of the human spirit, these are considered essential components of the well-educated individual (Bopp et al., 1989; Fowler, 1989; Jasmin, 1996).

#### 4.4 Formative evaluation

To better address stakeholders' concerns it is practical and realistic to use a combination of naturalistic inquiry, quantitative and qualitative data-gathering methods. These can take the form of questionnaires, field tests, observation, group and one-to-one discussions with a variety of product end-users as well as internal and external SMEs (Flagg, 1990). Besides content accuracy, Flagg points out that certain appeal variables, such as interest, personal relevance, familiarity, credibility and acceptability are also important to consider.

Gathering feedback on as many variables as possible, and from as equally wide a range of relevant sources, a more wholistic view of the specific issues that need to be addressed can be obtained. This approach to evaluation can offer insight into which modification strategies can be used to adapt existing materials or produce new ones to

effectively address those issues (Gall, Borg & Gall, 1996; Guba & Lincoln, 1981; Patton, 1990).

Patton (1990) points out that the stakeholders or end-users hold vital information about the strengths and weaknesses of previously established approaches. It is ultimately the end-user, in this case Cree students and teachers, who are best able to identify any missing steps, confusing or inappropriate language and if learning has occurred. As Weston (1987) reminds us, it is the actual users' reactions to materials that deserve more credit.

To avoid influence from peer pressure, Rossett (1987) suggests interviewing SMEs outside of the end-user group also because anonymity and control are not issues, which sometimes inhibit credibility of feedback. This is also supported by Weston, Le Maistre, McAlpine, and Bordonaro (1997) who suggest interviewing SMEs not part of the end-user group when looking for unbiased feedback on content accuracy, comprehensiveness and timeliness of materials.

Whatever the methods used, evaluation is best served when viewed as a multi-layered, multi-dimensional undertaking that can not be limited to a rigid paradigm (Geis & Smith, 1987; Kifer, 1995; Tessmer & Wedman, 1993). Feedback is most credible



when obtained from a broad spectrum of novice and expert evaluators because of the immediate and long-term benefits it can provide to stakeholders (Stake, 1991). Involving a variety of sources holding different perspectives offers a broader data base for making better decisions (Geis & Smith, 1987; Kandaswamay, 1980; Weston et al., 1997).

## **Chapter 3**

### **5. Tentative Solution**

Boyd (1993) asserts that cultural evolution can only occur when "trans-body p- individuals co-exist in a mutually supportive fashion without attempting to assimilate or obliterate each other"(p.120). Destructive variety, such as the unhealthy lifestyle choices being made by some Cree youth, indicate attempts at cultural self-destruction thus the need for an innovative, wholistic approach to health. Promoting inter and intra - personal conversational learning through situated learning activities is a potential long-term solution to the deviation amplifying affects of pathological, low-level autopoietic p- individuals (Boyd, 1993). These affects can be considered to be the result of cognitive fixity (Pask, 1969), which, in this case, may be reversed or at least limited through the implementation of the culturally specific interpretation of health which is "Miyupimaatisiiuwin".

#### **5.1 New health curriculum materials**

In 1996 the CBH approached the CSB to propose a financial collaboration for the development of comprehensive, Cree-specific, school health education materials. Community members, surveys completed by health and education professionals, and

research conducted confirmed the need. Funding was obtained in January 1997 and the PHM project coordinator hired education consultants (see Figure 3). An original, comprehensive, school health educational program, for grades K-8 was the result. Its goal was to fill the gap created by a lack of culturally appropriate educational materials to address the serious health risks faced by Cree youth.

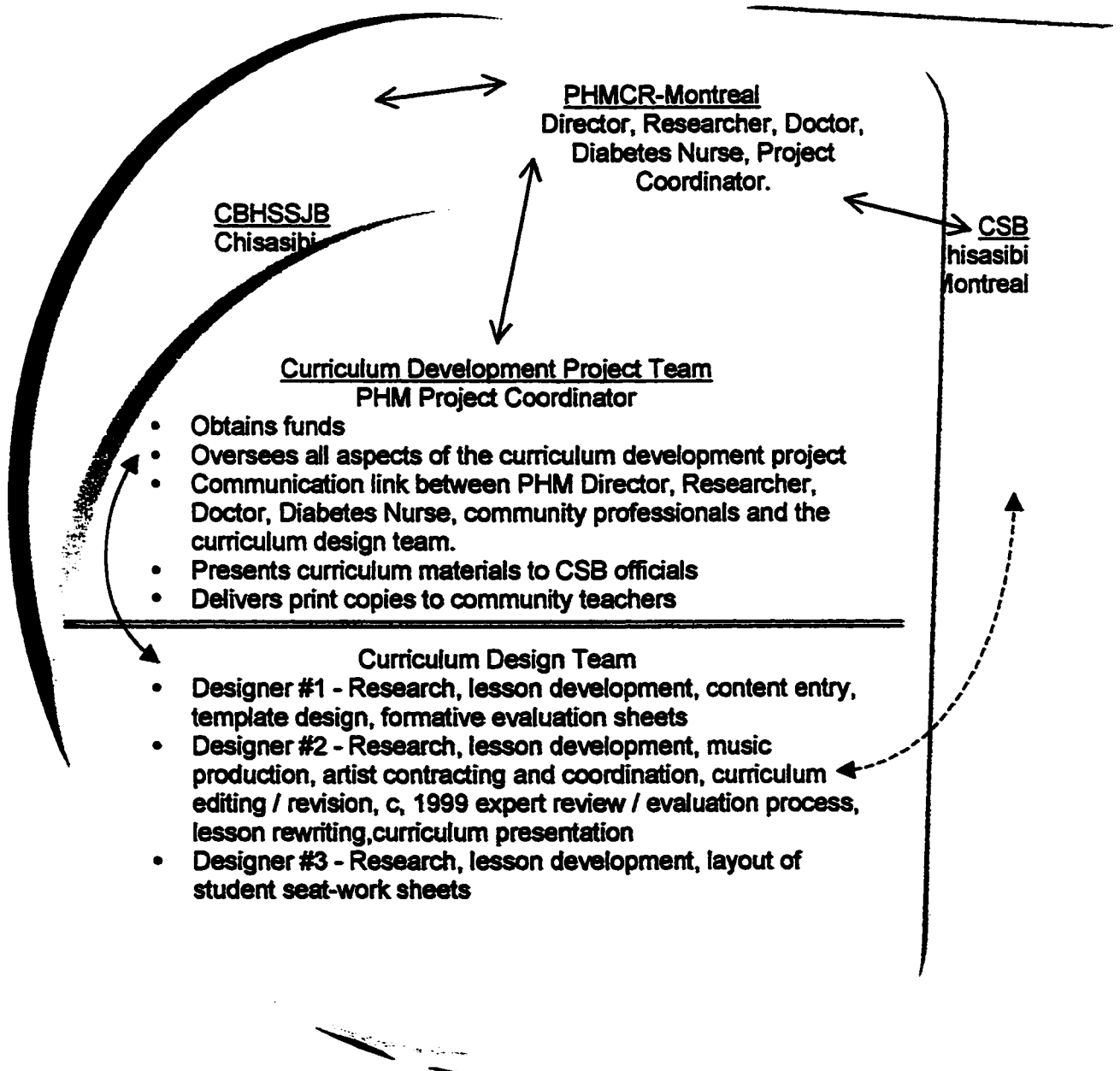


Figure 3: Curriculum design focal system.

## **5.2 Curriculum specifications**

**The Cree-specific health curriculum for grades K-8 reflects the educational needs, cultural interests, health and life-style issues relevant to Northern Quebec Cree students. It also mirrors the objectives and competencies required in MEQ approved MRE and PSD programs. A primary goal is to help students develop a strong sense of self, as an individual, as well as one's sense of collective self, as a member of the Cree Nation. Long-term goals are to assist the development of learners' self-esteem, communication, problem-solving and decision-making skills, physical fitness, safety and media awareness, conflict resolution and community responsibility.**

**The Miyupimaatisiiuwin Curriculum package comprises a teacher's manual, student work sheets, a tape and songbook of original songs for grades 1- 4, a kindergarten workbook, games, books, audio and visual materials. Hands-on learning activities offer practice in thinking critically, developing inter-and intra-personal communication skills, centering exercises for concentration, breath control, relaxation and confidence building, improving physical strength, and knowledge application in the classroom and the community. Lessons encourage teamwork and involve appropriate members of each community as role models in sharing the learning experience, traditional values and concepts of health. Teachers may use it as support for already existing health related materials or alone.**

## **Chapter 4**

### **6. Curriculum Development Process**

The design and development of the Miyupimaatisiiuwin Curriculum was an ongoing process that started early in 1997. The process involved: examination of already existing First Nation and mainstream health education materials; visits to Cree communities to meet educators and health workers; drafting and distributing lessons to community teachers; developing and obtaining audio, video and print-based materials to accompany lessons; obtaining feedback on the materials; incorporating revisions when necessary (see Appendix A for the author's role and project timeline).

#### **6.1 Research and appraisal of already existing curricula content materials.**

To guide the curriculum development process and better understand how existing First Nation's health curricula differ from those designed for non-Native learners, available, already-existing First Nations' created or intended educational materials were examined and compared with mainstream health education (see Appendix B for a list of resources consulted). These materials were also examined to determine if existing health curricula could be used instead of investing all the time and money in the development of a totally new product. The following provides the findings from this process.

First Nation destined health education curricula examined early in 1997 for content, traditional teaching methodology and accommodation for diversity of information processing styles were the *North West Territories Health Education Curriculum* and the *Mokakit - First Nations Freedom: Curriculum of Choice*. These were the only two curricula available at the time. A non-Native curriculum examined was the *ETR Comprehensive Health for the Middle Grades*.

The MEQ guidelines for PSD and MRE programs were carefully examined to ensure the Cree-specific curriculum follows required criteria. This provides health themes, language development, information delivery, lesson duration, learning activities, and evaluation of student learning. This sets the criteria by which students are graded however, for this subject the guideline states that "in no case should a child be labeled as having *failed* at one stage or other of his development"(Ministère de l'Éducation, 1995,p. 260).

The *Northwest Territories Health Education Curriculum* covers a broad range of topics relevant to remote northern communities. However this is a language-based program and does not reflect a diversity of learning styles. There is a lot of seatwork activities based on work sheets and writing. Musical activities for the younger grade levels were done to traditional European melodies.

**This curriculum lacks the hands-on, experiential, visual and group work activities necessary to encourage First Nation students to actively participate in and benefit from the learning process. However, the PHM project coordinator recommended using this model as a guide on which to base the preliminary lesson drafts.**

**Nevertheless, this is a well-designed curriculum offering a wide range of health education themes and clear delivery guidelines for mainstream teachers. The emphasis on language allows the materials to be used in English language development as well as MRI and PSD classes.**

**The *Mokakit - First Nations Freedom: Curriculum of Choice*, developed by a group of First Nation educators and consultants from western Canada, was examined also. It has a strong emphasis on group work and First Nation relevant, culture-based, learning activities and health themes. This is a very hands-on, activity-based curriculum designed to strengthen First Nation students' self-esteem, health and knowledge of important health facts. Learning activities encourage students to include community members in the all aspects of the learning process. Many focus on community-based research projects into cultural events and traditional perspectives of health.**

The *Mokakit* curriculum had already been distributed to the Cree communities several years earlier but it had not been used. Reasons given were that there was just too much material making the manuals too hard to handle because of their size. Educators also said they had not been trained in how to use the materials properly. It was noted also that the content of each page was so dense that it made the lessons and activity instructions hard to read. While the *Mokakit* educational materials offered more culturally relevant, hands-on, project and community based learning activities, the NWT reflected a mix of mainstream individual student seatwork learning activities with a minor reference to the NWT cultural context.

The *Education, Training, and Research Associates (ETR)* curriculum, developed in Santa Cruz California, was examined as it focuses on empowerment through health, well-being and acceptance of cultural diversity. The ETR program offers a wide range of lesson ideas for different grade levels however each health theme is presented in a separate volume making the size of the whole curriculum fairly large.

Feedback on the first draft received from teachers in 1998, indicated some revisions were necessary. As a result, previously unavailable First Nation developed education materials, such as *Rediscovery: Ancient Pathways, New Directions (1996)*; *Keepers of the Earth (1989)*; and the *National Native Role Model Program*, were



obtained and examined. A new mainstream curriculum on sex education titled *Sex Respect: The Option of True Sexual Freedom* was also obtained and examined.

The *Rediscovery* text offers many suggestions on how to help students open up, to develop trust and self-confidence. These materials look to emotional, social, spiritual and psychological healing. The strategies are hands-on, involve physical interaction, many are carried out on the land and appear to be fun.

The *Keepers of the Earth* is a good social and environmental studies curriculum. It was a valuable tool in offering suggestions on how to guide learning in traditional teaching methods such as using Story Telling, Talking Circles and taking learners out onto the land to interact with the environment.

Literature from the *National Native Role Model Program*, as well as from the Native Physicians Association was also reviewed for guidance. Both emphasize the need for traditional First Nation cultural values and concepts to be the basis for First Nation health education materials. Health and Welfare Canada and the WHO provided information on substance abuse, healthy weight issues and global school health initiatives (see Appendix B for a complete list of all resource materials consulted).

The *Sex Respect* curriculum is a new mainstream American curriculum. It places a strong emphasis on abstinence from any sexual activity as a possible alternative to pharmaceutical birth control. It also offers learning activities that allow students to practice how to deal with peer pressure situations. It offered some excellent ideas for learning activities however these would need to have been adapted to the Northern Quebec Cree context.

In the spring of 1999 the results from the expert review were gathered and examined. As a result previously unavailable First Nation health educational materials became available and were examined. These were the *Nutrition Education Program for Cree Populations grades K-6* (Leclerc, 1998); the *Kanahwake Diabetes Prevention Program grades 1-6* (1997); the *Indian Health Services Diabetes Program* (1995); the *Ristra Curriculum* (1996).

The *Nutrition Education Program* developed by Lucie Leclerc (1998) contains some Cree-specific information about regional traditional activities such as berry collecting and goose hunting, however, there does not appear to be any type of specifically First Nations' approach to teaching. Lessons are structured to take place in the classroom, at desks, using seatwork materials which do not particularly reflect Cree-specific images nor encourage First Nation learning and communication styles.

This is a language-based curriculum. Although students are supposed to learn in Cree until grade 4, English language appears on the grades 1-3 student seatwork and teachers are directed to simply photocopy them for their students. Some pages are missing. Images on the lesson worksheets do not appear to specifically represent the Cree population of Northern Québec.

The *Nutrition Education Program* could benefit from being brought up to current educational message design and instructional delivery standards. There is little if any Cree-traditional teaching methodology. There is little variety in the seatwork or activities to indicate consideration or acknowledgement of diversity in students' information processing and communication styles.

The *Kahnawake Diabetes Prevention Program* has two separate parts one titled "*Diabetes, Lifestyle and Fitness*", with the other part titled "*Nutrition*". There are five lessons per grade level in each part making ten lessons in all. Though promoted as a "Diabetes Prevention Program", examination of all the lessons revealed that reference to the illness of diabetes occurs in only one lesson per grade. There is little or no link made to the illness across all the other nine lessons.

Although promoted as using a traditionally "Native" teaching style and as encouraging Native learning styles, this program is strongly language-based. There is little if any consideration for diversity of information processing and communication styles. While there is some storytelling there are many direct questions as introductions to the lessons which runs contrary to traditional First Nation teaching methods (Bopp et al, 1989).

The *Kanahwake Diabetes Prevention Program* is a good Biology program with a minor reference to Diabetes and Heart Disease. Since Mohawk learners, as with other First Nation's students, are at a high risk for developing Diabetes this program could be strengthened by incorporating more references or links to physical fitness and nutrition awareness to Diabetes across more lessons.

The *Indian Health Services Diabetes Program* (1995) and the *Ristra Curriculum* (1996) only give factual information with no suggestions on how to use the information with students. In one respect this may be preferred by some Cree teachers, as it would allow them to adapt their lessons to their specific needs. However, these materials assume the facilitator has a clear knowledge of the health issues. As all teachers are not experts in health issues, these may not give teachers the support they need in the classroom.

Additional research into health issues such as suicide, accidents, diabetes, substance and child abuse, STDs and AIDs, nutrition and mental health in Northern Quebec Cree and other First Nation communities was also examined. Findings indicate that these health issues need to be addressed in a preventative manner throughout First Nations communities not only those of Northern Quebec Cree (see Appendix B).

## 6.2 Population and needs analysis

In early April 1997, face-to-face meetings and interviews with teachers, student affairs technicians (SATs), guidance councilors and principals were conducted in the Cree communities of Oujé-Bougoumou and Mistissini. These professionals offered valuable input into the probable causes for the dangerous lifestyle choices being made by Cree youth and how they felt these issues may be addressed.

Observing student - teacher interactions showed preferred teaching methodologies to be teacher-centered with some team collaboration on worksheet activities. Classroom management and discipline problems are similar with those in mainstream schools. Most classroom seating is arranged in rows, student-teacher ratios are approximately 20 or 30 students to one teacher which is in part due to multiple grades in each class such as grades 2 and 3, or grades 4, 5 and 6 together.

Teachers were invited to actively participate in the curriculum development process. The PHM project coordinator distributed sample lessons from the Northwest Territories Health Curriculum to try with their students. Teachers were asked to provide feedback on the health education lessons they completed.

Feedback was obtained from teachers of secondary 1-5 who used eighteen health education lessons. Although the numbers of teachers and students is not available, the data for the health lessons used showed that: 1) the preferred teaching Methodologies are Question-Answer (15/18) and Brainstorming (15/18); 2) student Interest in the health themes was mostly Somewhat (14/18) which can be perceived as a positive or a negative response; and 3) for Appropriateness (of the topic) the response was fairly balanced at "Somewhat" (9) to "Very"(7). While this information can be read either positively or negatively, if students are not interested in the topic or learning activity, the learning experience will not be meaningful and the concepts forgotten.

Traditional First Nation teaching methods and research on student learning styles indicates that the question-answer approach is not recommended. Storytelling, role modeling, cooperative group activities were not used by these teachers even though research recommends this across most First Nations and in the history recounted by Cree Elders claiming that these are the traditional Cree teaching methods.

Visiting the community schools also revealed that each school has modern classrooms and technology such as fully equipped computer rooms, internet access, audio visual equipment (televisions, audio and video cassette players) and that television-conferencing equipment is available in each community. However, there was little indication that these resources played a major role in the delivery of education in these schools.

### 6.3 Curriculum design

A First Nation's concept of health involves an on-going education of the whole person at all stages of their life through wholistic education. This concept is represented in what is known as the "Circle of Wellness", which is also known as the "Medicine Wheel", the "Peace Symbol" or the "Sacred Circle". These symbols reflect the four interrelated categories of human potential - spirit, heart, body and mind.

This ancient symbol is recognized and used by most First Nations of North, Central and South America. It reminds people of their interconnectedness and interdependence, as well as the responsibility we all carry to maintain harmony and balance in ourselves, within our community and beyond. Since the 1970's, this foundational symbol (see Figure 4) has become a respected framework on which to design and develop First Nation educational materials in Canada (Regnier, 1995).

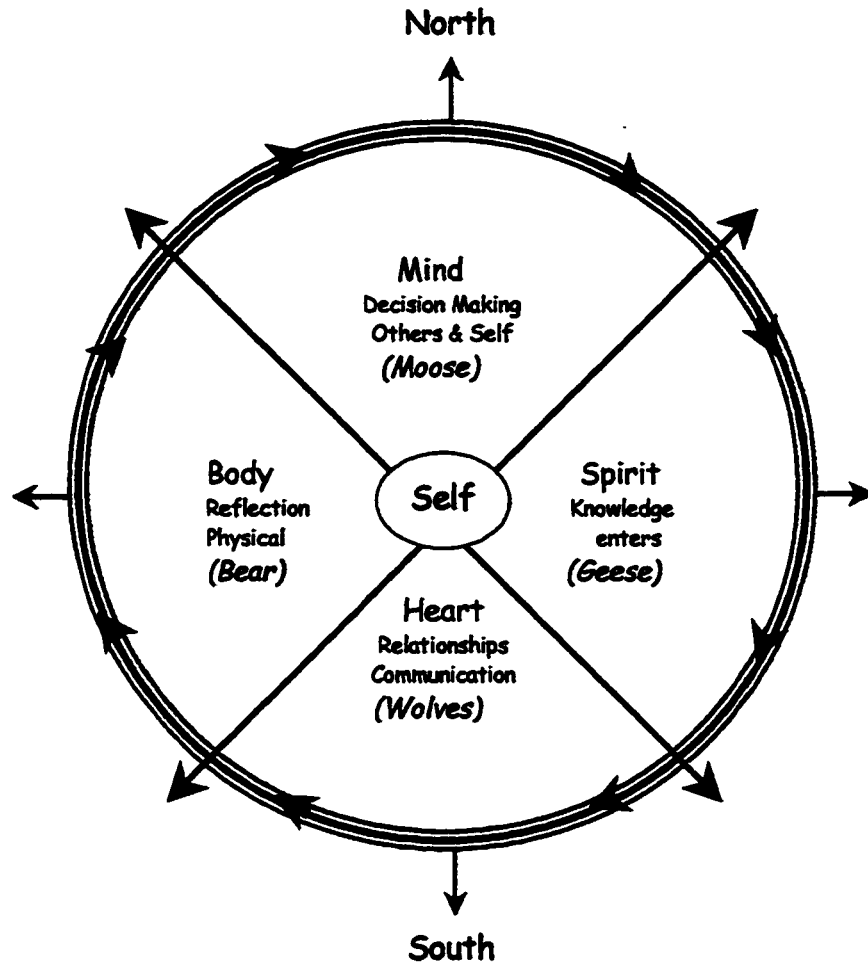


Figure 4: Medicine Wheel: Indicating the cardinal directionality and what each quadrant represents, the types of learning and different stages of human development in each.

The Miyupimaatisiiwin Curriculum is based on the formation and intent of the Medicine Wheel. It divided into four equal units representing the East, the South, the West and the North. There are four lessons per unit. Each unit and the health themes in them address the totality of the individual - spirit, heart, body, and mind (see Figure 5).



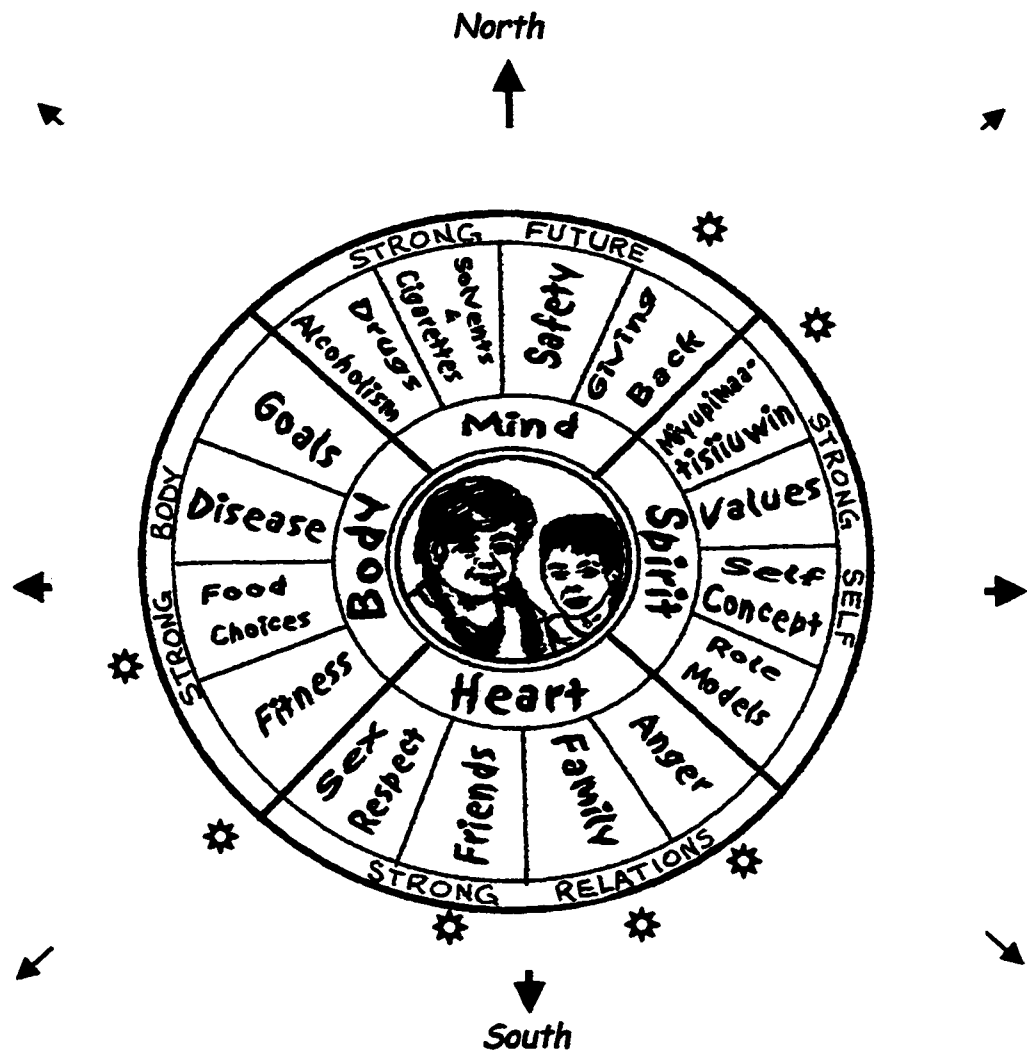


Figure 5: Curriculum units and themes based on the Medicine Wheel design. Starting at lesson #1, Miyupimaatisiwin, the author developed the seven themes indicated by stars.

Spiral in nature, the curricular themes reiterate each year increasing in complexity. The intention is to reinforce the main concept of Miyupimaatisiwin, or all that is implied in "being alive well" at all different stages in life and how it can be implemented in real life contexts.

#### **6. 4 Lesson development**

**Information gathered through the initial need's analysis, documented research, and already existing health curricula, indicated various health-related themes considered most relevant to Cree community needs. Of the sixteen themes selected, the author developed lessons in seven units for nine grade levels, K-8, as well as several lessons across the units and grades (see Appendix A for Author's role).**

**The layout of the individual lessons is also based on the Medicine Wheel. Lessons at every grade level are designed to begin with the focus in the East, the traditional direction from where new knowledge comes. The lesson then rotates around the circle into the South, where knowledge is experienced through interpersonal communication and interactive learning activities. The lesson then moves to the West, to allow time for reflection or building physical strength, then finishing in the North where knowledge gained is applied for making decisions as to how to “give back” to the community and share the knowledge.**

**As the concept of health involves the whole individual, Cree culture, values and traditions play an important part. Apart from the lesson title and teacher preparation instructions, the four key elements of each lesson appear as follows (see Appendix C for a sample lesson):**

1. **Wellness Message** – Philosophy to guide the focus of the lesson.
2. **Focus Attention** – In a Talking Circle, to introduce concepts through storytelling and discussion.
3. **Activity** – culturally specific, team & group work - visual, hands-on, concrete, spatial, kinesthetic, musical, inter and intra personal .
4. **Reflection** – In a Talking Circle or relaxed setting, reinforcement of concept through discussion, decisions about how to apply knowledge - "giving back".

Findings by McAlpine and Taylor (1993) indicate that the instructional preferences of Cree teachers are predominantly teacher-led, lecture-style and authoritarian. However, this is most likely due to the educational experiences these teachers had themselves. Some teachers lived through the residential school experience, others had always been taught by non-Natives and some also did their teaching internship with non-Natives.

To accommodate for this and introduce ways to integrate or apply traditional Cree educational methodology, a selection of mainstream pedagogical techniques and traditional First Nation methods are suggested. These include story telling, role modeling, observation, group or team work, talking circles, sharing, and giving back activities. Mainstream learning activities are mainly language based student worksheets.

Self-directed learning is supported as students are encouraged to express themselves artistically through visual art, theatre, music and dance as well as through research projects, information analysis and presentation. Each lesson also has alternative learning activities to be used in place of the activity embedded in the lesson or as enrichment. Although some health issues are difficult to talk about, students are provided the vocabulary to identify and communicate their feelings and opinions when ready.

To start, teachers are given the lesson theme, which indicates the unit title, the type of learning activity and the relationship to First Nation world-view or value. This is followed by the lesson objectives and any particular notes deemed relevant or helpful as well as the preparation needs.

Each lesson starts with a "Wellness message" to introduce the health concept to the teacher, who then interprets it for the students at the beginning of the lesson. It is recommended that this be done in a Talking Circle where the teacher may tell a traditional or personal story. Using the traditional Talking Circle seating arrangement for this and all discussion activities is intended to allow students to ask questions or share their own story in what is culturally perceived as a non-threatening group environment. Here, students have the right to speak or not, uninterrupted, and no criticism is allowed.

**By actively participating in the story or reflecting upon it quietly, students steer their own learning.**

**This introduction may be expository in nature if the story told gives a clearly stated definition or explanation of the concept. However, many traditional stories are not always crystal clear, often contain more than one concept, and are intended to be considered carefully by the listener who may interpret the meaning in a very personal way. The choice of the story is left to the teacher who is expected to know the students and the specific community's culture best.**

**During the activity stage, students engage in learning conversations as they interact with each other and the concept through hands-on, group discussions and activities. These may take the form of artistic expression such as visual art or as explorations to community clinics or stores, the Peace-Keepers or the Band Council. In teams, students may engage in media analysis, such as television shows, advertisements, or popular songs, either provided or of their own selection. Members may then comment on the content through discussion, by designing their own version of an ad, by writing or performing their own version of a song. Research projects can investigate issues significant to the school population or the whole community.**

Elders or community members may be invited to talk about their experiences or show the traditional way to do something. After discussion of a concept, students may create a visual representation of how they would like to see their community in the future.

At the reflection stage, each group shares their interpretation of the concept with the rest of the class. Suggestions for how to share this new knowledge with the community as a form of "giving back" are then discussed and decided upon by the whole class. Families and community members may be invited to the class to see student work or research results and solutions may be presented to the band council. Students may put on a concert for the whole community or perform for their classroom guest.

## 6.5 Resources

To make the lessons as original and interesting as possible, AV and print-based materials such as books, videos, board and card games, and music were chosen that emphasize the selected health themes and that closely reflected the basic values inherent to Cree culture. Every effort was made to obtain Cree or other First Nation produced materials however few existed or were not available at the time. As the introductory notes to each teachers' manual encourages them to adapt the lessons to meet the specific needs of their students, it is hoped that whenever more appropriate materials become available they will be integrated or replace those selected.

All the resource materials selected are unilingual English, except some of the videos produced by the provincial and federal governments and the original music which was produced in both French and English. The reason for this is because the teacher's manuals were developed in English first and Cree and French translations language resource materials were not available at the time.

#### 6.5.1 *Miyupimaatisiiuwin: Let's Live Well* - tape and songbook

Music is a gift through which First Nation people heal and reaffirm themselves. Traditionally, being was manifested through the arts (Bomberry, 1997; Heth, 1997; Hill, 1996). As part of each culture's identity and celebrations, music can reinforce self-esteem, self-discipline and creativity, and it has been shown to improve students' skills in language and logic (Heth, 1996; Lazdauskas, 1996). Music is a universal language that cuts across cultural barriers, socio-economic status, and ability levels (Lazdauskas, 1996; Crinklaw-Kiser, 1996).

The author created eight original songs to be used as an integral part of the curriculum. Their content is based on the health themes and traditional Cree values. Two songs in particular, *Sharing* and *Miyupimaatisiiuwin* reflect traditional musical patterns in 4/4-meter, a descending melody ending on the lowest note, percussion instruments, and strong lead vocal. However, respecting modern First Nation musical

tastes, and keeping in mind the fact that these songs are intended for children aged 6-8/9, elements of commercial music - *In the Mirror, My Face, Boum Chaka*; country music - *People Just Like Me*, and reggae - *All of the People* are also used.

The eight songs were produced in English and French and form the basis for some of the grades 1-3/4 lessons. A multinational selection of children provided the vocal chorus. Métis musicians based in Montreal were engaged to record the instrumental tracks as funds were not available to import Cree singers and musicians from the communities. A Cree translation was requested by community teachers however funds were not available and time constraints were rigid. The translation, spelling and pronunciation of Cree words used in the songs were provided by Cree staff at both Montreal CSB and CBH agencies.

Many health risks in which Cree youth are engaged stem from low self-esteem, so it was felt that by introducing the health themes through music in grades 1-3/4, the younger students may more actively engage in learning the concepts. The earlier students acquire the knowledge and communication skills, the greater the possibility of developing the ability to make healthy life-style choices later.



As well as teaching the songs to the students, it was suggested that teachers play them as background music while students do other hands-on activities. It was also suggested that students perform these songs in a concert or as a "give-back" gesture to guests who come into the classroom to share their knowledge and experience. Students in older grades who are able to write and have a better grasp of Cree, English or French language are encouraged to translate the lyrics into Cree or create new verses.

#### **6.5.2 *Miyupimaatisiwin: 4Kids* activity book**

To provide the kindergarten level students exposure to the same health-related themes and concepts as the older grades, the author contracted a Cree artist to produce variations of the real-life images of the Geese, Wolves, Bear, and Moose. These are the same species used for the cover design and throughout the curriculum to identify each unit.

The pages of the students' *4Kids* workbook are completely language free while the teacher's manual offers ideas on how to discuss the health concepts with the students. Possible learning activities may be for students to draw the image in another form, create their own interpretation of the concept, or to practice writing the Cree syllabics for the concept in their own workbook. The *4Kids* workbook was also incorporated into some of the learning activities for grade one.

### **6.5.3 Miyupimaatisiwin: Solvent Abuse Prevention Activity Books- #1 & #2**

Two *Solvent Abuse Prevention Activity Books* were also developed separate from the curriculum but incorporated into some of the lessons on solvent abuse. As an alternative approach to addressing this issue, these booklets strongly emphasize Cree and other First Nation cultures, successful First Nation role models, traditional activities, awareness of toxic substances, and the possible consequences of healthy and unhealthy lifestyle choices.

With the focus on healthy lifestyle choices as an alternative to inhaling toxins, these booklets offer teachers a non-threatening way to approach the topic of solvent abuse with their students. They feature colouring and cutout activities, puzzles, mazes, and artwork based on First Nation culture and philosophy. A board game used with dice shows students possible consequences of using solvents. Positive lifestyle choice messages appear in Cree, English and French on each page. Cree staff at both CSB and CBHSS agencies Montreal and Chisasibi, as well as a translator with the Cree Magazine *The Nation* produced in Montreal provided the translation, spelling and pronunciation of Cree language used in the two workbooks

For the *Solvent Abuse Prevention Booklet #1*, the author contracted the same Cree artist who did the *4Kids* and curriculum artwork, and a graphic artist for the page layout

**work. For the *Solvent Abuse Prevention Booklet #2*, the author contracted the same Cree artist to create the real life images, did the bulk of the graphics work, obtained permission to use from sources and coordinated all phases of the printing and distribution to the communities.**

## **Chapter 5**

### **7. Evaluation Processes**

#### **7.1 Ongoing formative evaluations**

The PHM project coordinator mediated all initial communications between the curriculum development team and health professionals at the PHM and CBHSS. All feedback regarding the content accuracy of the preliminary draft lessons came through this individual. Three Cree staff of the CSB in Montreal and Chisasibi; two Cree staff at the PHM; and a Cree translator with *The Nation*, a Cree magazine produced in Montreal provided input and feedback for Cree language accuracy in the music and activity books. The PHM Cree staff members speak an inland dialect and the CSB staff members and the *Nation* translator speak a coastal dialect.

These dialectic differences between inland and coastal Cree indicated the need for two sets of materials however budget and time constraints did not allow for this. As such, a choice was made by the PHM project coordinator and Cree PHM employees to use the inland version for the few Cree words used in two songs and the coastal version for the *Solvent Abuse Prevention* activity books #1 & #2.

## **7.2 1997 - 1998 - Formative evaluation of the first draft**

The tape and songbook were finished mid-1997 and the first draft of the curriculum, titled the *Cree Wellness Curriculum*, was finished late in 1997. These were given to the PHM project coordinator to deliver to teachers in Oujé-Bougoumou and Mistissini. Teachers were asked to provide feedback after completing each lesson. Mistissini withdrew from the project so only Oujé-Bougoumou sent feedback for primary grades 1, 3, 4, 6, secondary 1 and 2.

Three teachers identified lessons they used and rated them by comment, letter or number. Variables considered were the ease or difficulty of the vocabulary, clarity of instructions and concepts, interest in or practicality of the learning activities, usefulness or information value and organization. Feedback indicated the need to clarify the instructions and concepts, to reduce activity time, and to simplify the vocabulary. Responses were all positive for interest, usefulness, information value and organization.

Feedback on the music from teachers, students, and CSB officials was positive. Students enjoyed or identified with the rhythms but some did not understand one Cree word used either because of dialectic differences or pronunciation. To avoid this problem, it was recommended in the introductory notes that teachers invite Elders to discuss the concept of *Miyupimaatisiiuwin* and thus provide an appropriate model.

### **7.3 1999 - Expert review**

The 2<sup>nd</sup> draft of the curriculum, titled the Miyupimaatisiiuwin Curriculum, was finished in late 1998. and delivered to the PHM project coordinator for distribution to all nine Cree community schools. To obtain internal and external subject matter expert (SME) feedback on the curriculum materials, an expert review process was initiated in February 1999.

Subject matter experts in health and education were contacted in four Cree communities and in Montreal. These experts included school principals, teachers, pedagogical advisors, SATs, curriculum developers, educational psychologists, nutritionists, diabetes consultants and health workers (see Appendix E for SME list). All accepted to review the curriculum for content accuracy, as well as cultural, thematic, age and grade level appropriateness. During the review process health and education professionals not originally contacted but equally qualified, came forward to participate as well in varying and limited roles. Curriculum materials were hand delivered to all participants and follow-up meetings were arranged to discuss feedback.

This broad range of feedback from a cross section of Cree and non-Cree health and educational experts proved to be valuable. The participants agreed that having an original, wholistic, Cree specific health education curriculum is beneficial for all. They

appreciates that the curriculum layout reflects a First Nation concept of health, that units address health issues relevant to Cree youth and that most lessons offer an innovative and culturally appropriate learning activities. However some modifications were strongly recommended.

Lessons were identified as needing revision due to: content inaccuracies or inappropriateness; conflicts with already existing health education materials or programs; failure to make clear links between concepts and important health issues such as nutrition and diabetes. Other important factors are the lack of specific materials in the communities and who would pay for them if they became available (see Appendix F for SME feedback).

The following summarizes the qualitative feedback received from the SMEs through face-to-face interviews, telephone conversations and the notes they wrote on lessons in the teachers' manuals

### 7.3.1 Internal SMEs

- School Principals - 4

Only one of the four principals recruited to participate in the expert review process actually examined the teacher's manuals and supporting materials. The reasons

given for this are many and can not be addressed here. The main concerns expressed by the active participant were about the inclusion of lessons on substance abuse and sex education. It was felt that these topics may prompt students to engage in these activities. It was recommended that more role-play activities be included in the lessons especially at the younger grade levels.

The other principals had not examined the curriculum materials and could not offer any input on their viability. Their solution to this problem was to recommend that their teachers review the lessons, try them with their students, then to provide feedback. This option was not immediately possible as the resource materials were not available in the communities and the two-week school holiday for goose break was coming up. Upon their return, teachers would have to start reviewing the materials covered during the year in preparation for the final exams.

- **Teachers - 25**

Teachers in three of the four communities - Oujé-Bougoumou, Chisasibi, and Eastmain – looked through the materials and expressed interest in using the curriculum with their students. Some wanted all the student copies of the seatwork for grades 1-3 to be language-free. They liked the music and lyrics and would like to have Cree versions



of the songs. This would require two adaptations of the eight songs to accommodate the Inland and Coastal dialects.

The Cree language used in the *Solvent Abuse Prevention Activity Books* presented a problem also because of the different dialects. Although the Cree had been obtained from Cree translators from Chisasibi and Montreal, the inland communities felt their own translator would be more appropriate. It was also pointed out that the teachers need more support in terms of training and follow-up communications. This could be arranged through phone calls, e-mail and CMC. However, the teachers would have to be trained in how to use the e-mail and CMC systems for this purpose.

- Health workers - 7

Health workers in all four communities had never seen the curriculum materials but expressed an interest in knowing more about them. After looking over the lessons, on Nutrition, Sex Education, Substance Abuse and Safety, they had concerns about the time required to participate in the suggested classroom activities, the cost of some lesson materials and who would pay for these items. They also said that parents would have to approve the sex education materials before they could be used in class.

CHRs address health issues such as nutrition, cigarette smoking, alcohol and STDs, in monthly, one-hour, school presentations. The CHR usually does this alone, in Cree, while the teacher is not present. While there are benefits to having the health-related information delivered in Cree, it was suggested that team-teaching this subject may help reinforce the issues on a more frequent basis and with active student participation.

### 7.3.2 Semi - external SMEs – 5

Feedback from these experts was mixed. Those that completely supported the implementation of the curriculum appreciated its wholistic nature and flexibility. They felt that by offering this comprehensive, Cree specific approach to health education in the classroom on a weekly basis, student behaviors and learning outcomes may improve. Ideally an improvement in these areas would carry out into the community over the long term. There is some concern that the classroom is the only place some students can learn about health related issues. If they are not talked about in the community or at home then students only have the CHR presentation once a month to acquire important information.

Major concerns expressed by those who did not wholly accept the curriculum were that it would replace the already existing nutrition education materials, and that it is the local CHR's job, not the teachers', to deliver health education. Other concerns were:

content inaccuracies; questionable pedagogy; lack of funds to acquire materials and thematic appropriateness, inconsistency and inappropriateness of some language used; the lack of hygiene and safety of some of the activities; and the unrealistic degree of involvement required of the outside health workers (nurses, CHRs).

While diabetes, extra weight, heart disease and mercury poisoning are serious health concerns in Cree communities, these issues were not prominently identified in the lessons. Also using the Body Mass Indicator is inappropriate for youth and there is concern that focussing on body weight in the classroom may lead to anorexia and bulimia. This feedback prompted a total rewrite of the Nutrition component for all grade levels.

It was suggested that, to ensure that this curriculum is accurate in terms of content and appropriate in terms of culture and education levels, more community experts from areas of health and education must be involved in the development and implementation processes. A clear and detailed plan must be drawn up on how to proceed to the next stages. It would be important to present this plan at a meeting of all health and education professionals so as to involve as many end-users as possible.

### 7.3.3 External SMEs - 6

These experts felt that the curriculum is an excellent health education tool as it addresses the important health issues First Nation youth face daily and emphasizes building self-esteem through reinforcing traditional values and culture. The curriculum needs to be pilot tested over a period of three years to test its viability. Change in student behavior as well as the successful integration of new educational materials into the community schools can only be done effectively over time. At the same time, pilot testing the materials would allow teachers the opportunity to adapt the lessons to their students' needs.

As the themes reoccur throughout each grade level and learning activities accommodate diverse learning and communication styles, Cree students may participate more actively and gain the important knowledge to make critical lifestyle decisions. Lessons that address issues of self-concept, values, anger management, relationships, and goals are excellent tools for helping students build self-esteem, communication skills and the notion of consequences for behavior. Some lessons with a heavy emphasis on discussion could be adapted to accommodate adolescent students' reluctance to verbalize. However, by starting the curriculum now, using the strategies as they are, the potential exists for younger students to be better able to defend and verbally express themselves as

adolescents. By helping students build self-esteem and communication skills early they may avoid the problems of substance abuse, peer pressure, teen pregnancy and suicide.

Basing the curriculum and lesson delivery on the First Nation philosophy of health is unique and valid. Using a variety of technologies to present the themes from a First Nation perspective has a greater potential for success than mainstream materials addressing the same issues. Emphasizing First Nation world-view and the Medicine Wheel helps students as well as teachers who themselves may be products of residential schools or non-Native educational experiences.

## **8. Revision**

**As pointed out by Bernard and Schnackenberg (2000), educational materials are not simply finished once they have been printed, packaged and delivered. The materials need to be tested over time to ensure they maintain relevancy to the context. Approaches to information delivery and technology may need to be up dated to current standards.**

**The expert review process revealed the need to rewrite the Nutrition lessons, the removal of the BMI activity in the Fitness lessons, changes to Solvent Abuse activities deemed inappropriate, the incorporation of 'Cree values' into the Values lessons, and some activity sheets were re-designed to reflect Northern Quebec Cree images. The Introductory notes, the scope and sequence chart, the curriculum circle and the Contents page for each teacher's manual were changed (see Appendix F for SME feedback).**

**Criteria for incorporation of all feedback included accuracy of health related facts, cultural relevancy, thematic, age and grade level appropriateness. As time constraints limited the amount of revision only the most important changes were made. These were all based on the feedback obtained from experts and were further recommended and approved by the director of the PHM Cree Region.**

- **The unit on Nutrition was rewritten to avoid conflict with already-existing Cree-developed health education materials, to reinforce the links between food choices, intake and diabetes, to incorporate references to local, Cree-specific eating habits and to compare them with the Canada and Northern Food Guides, to ensure safety and sanitary conditions in the classroom during learning activities and to eliminate dependency on costly or hard to acquire materials. The unit was renamed Food Choices.**
- **All references to the BMI chart were removed from the fitness lessons. These were replaced with more research oriented body awareness activities such as measuring different body parts using tape, string, hand, or fingers as this is a traditional method for measuring things (see Appendix C, "Measuring Me" activity sheet).**
- **Sex education lessons were not changed but need to be approved by parents and any information they receive should be in an appropriate format, not simply a copy of teachers' lessons. Teachers felt this idea would compromise their ability to successfully teach the theme.**
- **The Solvent Abuse Prevention Activity Books #1 and 2 replaced any inappropriate lessons on this subject.**

- **A previously unavailable list of Cree values as set down by Cree Elders replaced the original values created for the Values lessons. An activity sheet used in a lesson on Safety was redrawn by a Cree artist to reflect a Cree youth performing a typical activity. Another activity sheet used to introduce students to the concept of multiple intelligences was redesigned to reflect Cree people in a Cree community (see Appendix C, "All Kinds of Minds" activity sheet).**
  
- **All the reference materials consulted throughout the development process were acknowledged in the introductory pages along with the participants who helped with the revision process**



## ***Chapter 6***

### **9. Conclusion**

The Miyupimaatisiiuwin Curriculum is by no means a completed work. It is concluded that a greater involvement of Cree people in all aspects of this venture would be time and cost effective. More end-user involvement is in accordance with the stated needs of Cree people to control the education of their students.

To determine the overall return on investment, in depth evaluations conducted over time could show what, if any, learning gains are achievable; if the materials, concepts and teaching approaches are accepted and integrated; if there are changes in student attitudes and lifestyle choices. These would be apparent in a reduction in unhealthy life-style risks, improved student grades and long-term health as well as community prosperity

### **10. Recommendations**

Based on an analysis of the feedback obtained from the evaluation processes, the following recommendations outline possible next steps in the Miyupimaatisiiuwin

**Curriculum development and implementation process. Completion of the suggested tasks by qualified Cree would facilitate an initial trial implementation of the Miyupimaatisiiuwin Curriculum in the four communities visited or all nine. This would enable greater Cree involvement in the development of their own educational materials and provide a more accurate assessment of the curriculum's viability.**

- Establishment of an on-going communication link between the PHMCR - Montreal, the CBHSSJB, and the CSB education services professionals in Chisasibi in order to share ideas and information regarding teacher training and CSB curriculum requirements (Immediate). This link could take the form of a CMC as the most cost-effective strategy.**
- Correlation of all MEQ competencies with objectives outlined in the Miyupimaatisiiuwin Curriculum (Immediate). This could take a month to complete.**
- Translation of the teacher's manual into French so that those teachers working in French community schools can use the materials as well (Immediate).**
- Make all grades 1 – 3 student seatwork materials language-free (images only) and Cree specific. This would involve the services of the Cree artist and if the inclusion**

on teacher copies of Cree syllabics is preferred, it would be necessary to involve the Cree translator.

- **Adaptation and recording into Cree of the Miyupimaatisiiuwin song tape for grades 1-3. The time-frame to complete this would depend on the Cree artist(s) selected, their speed at adapting from one language into another, and the availability of studio time to overdub Cree singers.**
  
- **Illustration and translation of the adapted Miyupimaatisiiuwin song book lyrics. This would involve, and depend upon the availability of, the Cree artist and translator.**
  
- **Deliver revised teachers' manual and support materials directly to teachers and discuss curriculum.**
  
- **Educate teachers in how to use the curriculum in the classroom (dependant upon availability – pedagogical days).**
  
- **Establish an on-line communication system (CMC) between the community schools and the PHM - Montreal, to support all teachers and obtain feedback / comments from them on viability of the curriculum materials.**

- **Formatively evaluate the Miyupimaatisiiuwin Curriculum with teachers using the CMC facilities and printed evaluation forms. In the short-term, the information will serve the CSB in terms of student learning outcomes. In the long-term, this information will serve the CBHSSJB for research purposes into disease, mental health and accident prevention.**

**A possible time-line for completion of these tasks and writing of the report would be one year. Cree university students and professionals could be hired to carry out these tasks. To keep all interested parties informed of progress made, time and expenses involved, detailed progress reports would be submitted to both the CSB and the CBH every 60 days.**

**An official, full-scale pilot-test of all grade levels of the Miyupimaatisiiuwin curriculum is necessary to obtain a true perception of the viability of these new materials. Communities selected could be Oujé-Bougoumou, Chisasibi, Nemaska, and Eastmain as they have already been visited yet other interested communities would be welcomed.**

**As the CHRs do not enter the schools until October or November, teachers would have time to deliver units one and two, which address issues of self-concept and**

interpersonal relationships, without interfering with the already existing educational materials on Nutrition, Dental Hygiene, Disease and Substance Abuse.

For this pilot test, the curriculum could be packaged as 4 separate units as it is designed. This could enable coordination of topic delivery across the communities thus facilitating receipt of feedback and making the adjustments where necessary. As soon as one unit of 4 lessons is completed, the teacher will be able to complete the feedback forms and return them. A unit could be completed in two - three weeks. Feedback obtained for these units can provide valuable information for future coordination with the topics already addressed by the CHRs and NNAADAP workers.

Prior to the start of the new school year, it would be necessary to meet teachers, CHRs, NAADAP workers, SATs, Principals and Cree Culture teachers. The purpose of this meeting would be to present all the curriculum materials, discuss the educational philosophy underlying the design, demonstrate instructional delivery where necessary, reinforce the need for community collaboration, and explain the various ways users (teachers and students) can provide feedback and contribute to the on-going development process. Where accepted, explain the value of the CMC system and train participants how to use it correctly.

To successfully launch any new product, a widespread promotional campaign would help introduce community members and professionals to the concept of health and the new educational materials. Successful implementation of the curriculum will only be achieved if health programs are coordinated and supported at every level in each community.

The involvement of all community Public Health Officers (PHOs), Coordinators of Student Affairs, Student Affairs technicians (SATs), Cree Culture Advisors and Elders, the Coordinator of Health Education Programs & Planning, Public Health Module Director, Project Coordinators, Educational Services Pedagogical Counselors & Designers, Community Health Representatives (CHRs), NNAADAP workers, school Principals and teachers. Their awareness of the curriculum and involvement in its implementation and evaluation are vital to the success of this effort.

As we have already seen over the course of this project, if Cree people are not involved at all stages of the design, development, implementation and evaluation of any educational endeavor, feelings become hurt which impedes that process. While it may not appear, from a non-Cree perspective to be appropriate, or time and cost-effective to involve all the above-mentioned people, it is the only way to ensure acceptance of the Miyupimaatisiiuwin curriculum by Cree people.

At present, all the student seatwork is kept at the end of the teacher's manual and must be photocopied before each lesson for students to use. This is time consuming for the teachers, expensive and dependent upon photocopiers. Also students get copies of the master sheets containing English language unless teachers remove it by hand themselves.

It would be more economical and neater for the students and teachers if students had their own workbook or binder. This would make it easier to monitor their progress and see what lessons and learning activities work best. This information could be valuable research material for future studies. Updated materials could be incorporated as they become available over time.

All seatwork materials should be made Cree-specific. This would involve drawing and / or embellishing the existing worksheets to reflect Cree people and culture. It has been requested that there be copies of the student worksheets for grades one to three that are language-free or have Cree syllabics. Translations would have to respect the two dialects - Inland and Coastal.

Another way to allow parents a greater role in the health education of their children would be if students were able to bring the letters and seatwork home in an organized package. This would help parents stay informed of what health-related topics

are being addressed in class. Topics can then be discussed in the home, in the first language, in various relevant contexts. Costs for the illustrations and translations would be determined upon consultations with the artist and translators.

As the Miyupimaatisiiuwin songbook and tape are in English and French, CSB officials, teachers and students have requested that the songs be adapted into Cree for grades one to three, Cree Culture and Cree language classes. As there are two main dialects, two adaptations must be made - one Coastal and one Inland.

The adaptations would need to be written into the songbook and the lyrics should be illustrated into images as well. This would help those students who process information better visually as well as reinforce the health concepts in the songs. All costs would be determined upon consultation with the artists.

## 11. Constraints

Restricted communication between the curriculum design team and Cree health and education professionals limited the amount of involvement from these subject matter experts. The need to produce drafts within tight time frames resulted in avoidable omissions and content inaccuracies. Money was spent prematurely on product



packaging that could have been used to involve more Cree experts or university education, health, translation or fine arts students.

Although a respectable looking and generally adequate final product was developed and delivered in a very short time, and well under the cost of producing other health curriculum materials such as the Mokakit and Northwest Territories Health curricula, key players in the Cree communities have not yet fully embraced the curriculum. As a result, funding was not obtained to carry out the recommendations listed and presented to the PHM director. This resulted in the curriculum not being pilot tested in the communities that requested it.

To avoid similar problems from occurring in the future it would be important to establish and maintain an environment of transparency and open communication between concerned parties from the beginning. While achieving consensus becomes more difficult the more people there are involved in the process, this is a First Nation way of arriving at decisions and effecting change. Keeping all concerned parties informed throughout the process may result in a lot more time needed to achieve consensus, but at least Cree people would play a more active role in decision-making, product development, implementation and evaluation. That would reflect Cree ownership of their own education products and programs.

## References

Adelson, N. (1991). *"Being Alive Well": The Praxis of Cree Health*. In Circumpolar Health 1990. Postl BD et al. (eds.). University of Manitoba Press, Winnipeg.

Armstrong, T. (1988). *Learning Differences – Not Disabilities*. From Principal. vol. 68, no.1, p. 34-36. National Association of Elementary School Principals.

Nelson-Barber, S. & Trumbull Estrin, E. (1995). *Bringing Native American Perspectives to Mathematics and Science Teaching*. In Theory into Practice. Volumes 34, number 3, summer. College of Education. Ohio State University.

Bennett, C. I. (1990). *Comprehensive multicultural education, theory and practice*. Allyn and Bacon. Boston, Mass., U.S.A.

Berkes, F. (1989). *Cree Trappers Speak*. James Bay Cree Cultural Education Centre. Chisasibi, Quebec

Bernard, R. & Schnackenberg, H. (2000). *Text Design for Instructional Designers*. Concordia University, COPIBEC Publications. Montreal, Canada

Black, S. (1997). *Picture of Health. Can schools teach kids to be healthy? Comprehensive health education programs are the ideal, but not yet a reality*. In The American School Board Journal. October 1997, Vol. 184, No. 10. Alexandria, Va.

Bopp, J., Bopp, M., Eagleday, J. (1989). *Recreating Native Education: A Case Study in Program Evaluation and Design*. In The Four Worlds Development Project. Lethbridge, Alberta.

Bopp, J., Bopp, M., Lane Jr., P. (1984). *A Wholistic Curriculum Can Contribute to Health: Discussion Paper Seven*. In The Four Worlds International Institute for Human and Community Development. Adult Education Series. Lethbridge, Alberta.

Boyd, G. M. (1993). *Educating Symbiotic P-individuals through Multi-level Conversations: From the Integrity of Concepts to the Symbiosis of Cultures*. In Systems Research. Vol. 10, No. 3, pp. 113-128.

Carey, J. W. (1975). *Canadian Communication Theory: Extensions and Interpretations of Harold Innis*. In G. Robinson and D. Theall (Eds). Studies in Communication. McGill University. Montreal, Quebec.

Dingman, S.M.; Mroczka, M.A; & Brady, J.V. (1995). *Predicting Academic Success for American Indian Students*. In The Journal of American Indian Education. V. 34, #2, Winter.

Ennamorato, J. (1998). *Sing the Brave Song*. Raven Press. Schomberg, Ontario.

Flagg, B. N. (1990). *Formative Evaluation for educational technologies.*: Lawrence Erlbaum. Hilldale, New Jersey

Fowler, C. (1989). *Recognizing the role of artistic intelligences*. In Music Educators Journal. (77 (1), 24-27.

Gall, M.; Borg, W.; Gall, J. (1996). *Educational Research. An Introduction*, sixth edition. Longman Publishers. N.Y., USA.

Gardner, H. (1993). *Multiple Intelligences: The theory in practice*. New York: Basic Books. New York, U.S.A.

Geis, G. & Smith, M. E. (1987). *The Function of Evaluation*. In Stolovitch, H. & Keeps, E. (1992). Handbook of Human Performance Technology. San Francisco, Jossey-Bass.

Goddard, J.T & Shields, C.M. (1997). *An Ethnocultural Comparison of Empowerment in Two Districts: Learning from an American Indian and Canadian First Nation school district*. In Journal of American Indian Education. Winter, vol. 36, no. 2.

Guba, E. G. & Lincoln, Y.S. (1981). *Effective evaluations*. San Francisco : Jossey-Bass. In Gall, M.D.; Borg, W.R.; Gall, J.P. (1996). Educational research : An Introduction. (6<sup>th</sup> ed.) Longman Publishers, White Plains, N. Y.

*History of Cree Education*. (1997). Grand Council of the Cree. Quebec. [Online]. Available: <http://www.gcc.ca/education/history-education.html>

Jasmine, J. (1996). *Teaching with multiple Intelligences*. Teacher Created Materials Inc. Westminster.

Kandaswamy, S. (1980). *Evaluation of instructional materials : a synthesis of models and methods*. In *Educational Technology*. (June) pp.19-25.

Kifer, E. (1995). *Evaluation : A General View*. Educational Policy Studies and Evaluation, University of Kentucky : Lexington, Kentucky. In Anglin, G. J. Instructional Technologies. Englewood, Colorado.

Knudtson, P. & Suzuki, D, (1993). *Wisdom of the Elders*. Stoddart Publishing. Toronto, Canada

Lalonde, D. (1995). *Multiple Intelligences : Why active learning meets learning needs*. In FWTAO/FAEO Newsletter November/ December. Ontario, Canada.

Matthews, R. (1997). *Robbie Matthews speaks on Education*. Interview by Rhonda Sherwood. [On-line]. Available: <http://www.gcc.ca>

McAlpine, L. & Taylor, D. M. (1993). *Instructional Preferences of Cree, Inuit, and Mohawk Teachers*. In Journal of American Indian Education. Fall.

McCaskill, D. (1987). *Revitalization of Indian Culture: Indian Cultural Survival Schools*. In Indian Education in Canada. Volume 2: The Challenge. Nakoda Institute Occasional Paper No. 3, University of British Columbia Press. Vancouver, Canada

Metha, A. & Webb, L.D. (1996). *Suicide Among American Indian Youth: The Role of the Schools in Prevention*. In The Journal of American Indian Education. V. 36, #1, Fall

- More, A. J. (1989). *Native Indian Learning Styles: A Review for Researchers and Teachers*. In The Journal of American Indian Education. August. pp.15-28
- Pask, G. (1969). *Strategy, Competence and Conversation as Detriments of Learning*. In Programmed Learning and Educational Technology. Vol. 6, pp. 250-267.
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods (2<sup>nd</sup> ed.)*. Sage Press. Newbury Park, California
- Perkins, D. N., & Salomon, G. (1989). *Are Cognitive Skills Context-Bound?* Educational Researcher. January / February.
- Regnier, R. (1995). *Bridging Western and First Nations Thought: Balanced Education in Whitehead's Philosophy of Organism and the Sacred Circle*. In Interchange. Vol. 26/4, 383-415. Kluwer Academic Publishers. Netherlands.
- Rhodes, R.W. (1990). *Measurements of Navajo and Hopi Brain Dominance and Learning Styles*. In The Journal of American Indian Education. V. 29, #3, May.
- Roth, L.; Valverde, C.; Robinson, E. (1994). *Miyupimaatisiiuwin : Promoting Health and Cree-Well-Being on Cree Radio*. Northern Quebec Module Public Health Unit, MGH; Montreal, Quebec.
- Right Brain/Left Brain. (2000). *Learning Styles, Culture & Hemispheric Dominance*. [On-line]. Available: <http://www.mathpower.com/brain.html>
- Rossett, A. (1987). *Training needs assessment*.: Educational Technology Publications. Englewood Cliffs, New Jersey.

Rothwell, W. & Kazanas, H. (1992). *Mastering the Instructional Design Process : A systematic approach*. San Fransisco : Jossey-Bass Publishers.

Stake, R.E. (1991). *Retrospective on The countenance of educational evaluation"*  
In M. W. McLaughlin & D. C. Phillips (Eds.). Evaluation and Education: At quarter century (pp.67-88). Chicago: University of Chicago Press.

Swisher, K. & Deyhle, D. (1992). *Adapting instruction to culture*. In J. Reyhner (Ed.). Teaching American Indian Students. (p. 81-95). University of Oklahoma Press.

Swisher, K. (1994). *American Indian Learning Styles Survey : An assessment of teacher's knowledge*. In The Journal of Educational Issues of Language Minority Students. v. 13, pp.59-77, Spring. [On-line]. Available:  
<http://www.ncbc.gwu.edu/miscpubs/jeilms/vol.13/americ13.html>

Tessmer, M. & Wedman, J. (1993). *A Layers-of-Necessity Instructional Development Model*. In ETR&D. Vol.38, no. 2 (pp. 77-85).

Valaskakis, G. G. (1992). *The Other Side of Empire: Contact and Communication in Southern Baffin Island*. In Communication, Culture, and the Interdisciplinary Perspective. Concordia University. Mtl. Quebec.

Van Hamme, L. (1996). *American Indian Cultures and the Classroom*. In The Journal of American Indian Education. v.35,#2, Winter.

Weistche, R. (1997). *Chairman's Message*. In the Cree School Board Annual Report 1997. Beesum Communications. Montreal, Quebec.

Weston, C. B. (1987). *The Importance of Involving Experts and Learners in Formative Evaluation*. CJECE, Vol.16, no.1, pp.45-58. Winter.

Weston, C.B.; Le Maistre, C.; McAlpine, L.; Bordonaro, T. (1997). *The Influence of Participants in Formative Evaluation on the Improvement of Learning from Written Instructional Materials*. Instructional Science. Vol. 29, pp. 369-386. Kluwer Academic Publishers : Netherlands.

World Health Organization. (1999). *The Jakarta Declaration On Leading Health Promotion Into The 21<sup>st</sup> Century*. In The Jakarta Declaration [On-line]. Available: <http://www.who.int/hpr/hpr/documents/jakarta/english.html>

World Health Organization. (1999). *What Is A Health Promoting School?* The Global School Health Initiative. [On-line]. Available: <http://www.who.int/hpr/school/what.html>

Zwick, T. T. & Miller, K. W. (1996). *A Comparison of Integrated Outdoor Education Activities and Traditional Science Learning with American Indian Students*. In Journal of American Indian Education. Winter, vol. 35, no. 2.



*Appendix - A*

*Author's role*

*Project timeline and activities*

## **Author's Role**

**As this thesis relates to a collaborative work, the author's specific role in the design, development and evaluation of the Miyupimaatisiiuwin Curriculum was as follows:**

- 1. Starting January 1997 - attendance and active participation in all decision-making meetings.**
- 2. Examination of Northwest Territories and Mokakit: Freedom of Choice Curricula, MEQ, guideines, ETR, Rediscovery: Ancient Pathways, New Directions, Keepers of the Earth, National Native Role Model Program, Sex Respect: The Option of True Sexual Freedom, Nutrition Education Program for Cree Populations, Kanahwake Diabetes Prevention Program, The Indian Health Services Diabetes Program and the Ristra Curriculum**
- 3. Travel to Oujé-Bougoumou and Mistissini to observe teachers and students using health education materials and to attend a meeting of principals, vice-principals, SATs and guidance councilors to discuss the current climate in the schools, serious health risks and possible solutions to these problems.**
- 4. Face-to-face and telephone interviews with SMEs.**
- 5. Selection of specific books and audio-visual resources around which lessons were developed.**

6. Engagement of Cree artist and coordination of all artwork completed by him.
7. Design and development of lessons in 7 of the 16 curriculum units:
 

<ul style="list-style-type: none"> <li>➤ Unit #1 Miyupimaatisiwin</li> <li>➤ Unit # 5 Anger</li> <li>➤ Unit #6 Family</li> <li>1. Unit #7 Friends</li> </ul>	<ul style="list-style-type: none"> <li>➤ Unit #9 Fitness</li> <li>➤ Unit #10 Food Choices</li> <li>➤ Unit #16 Giving Back</li> </ul>
--	--

  - Selected lessons in Units 2, 12, 13, 14, and 15 (due to necessary rewrites)
8. Proof read all 16 lessons for 9 grade levels prior to printing(s).
9. Production, composition, arrangement, performance on recording of eight original, bilingual songs to accompany the grade 1-3 / 4 lessons.
10. Examination of all feedback obtained from teachers for purposes of curriculum modification.
11. Travel to four communities to meet with health and education professionals to discuss the 1998 revision -2<sup>nd</sup> draft. (the expert review process)
12. Presentation of the curriculum to teachers in Chisasibi and Eastmain
13. Revision of 1998 draft - based on feedback from expert reviewers
14. September 1999 - attended meeting with CSB decision-makers to discuss necessary next steps.
15. Based on CSB decision-makers' requests, drew up a new list of recommendations for necessary next steps to curriculum trial implementation and presented these to the PHM director.

## **Project timeline and activities**

**1996**

### **Information gathering**

- **The PHM project coordinator gathered information from education and health workers in the nine Northern Quebec Cree communities.**
- **A proposal was drawn up to obtain funds from the CSB to develop a comprehensive school health curriculum**

**1997**

### **Start-up**

- **A three-member team was hired to develop Cree-specific health education materials for teachers and students in the schools that would address the serious health issues occurring in the nine Cree communities. (Suicide, substance abuse, violence, diabetes, etc.)**

### **Research**

- **Examination of the already-existing and available First Nations oriented and mainstream health education materials: Northwest Territories Health Curriculum and Mokakit: Freedom of Choice - Health Curriculum.**
- **Examination of existing research into health issues in Cree communities.**
- **Examination of the MEQ guidelines for PSD and MRE program outlines to ensure the Miyupimaatisiiuwin, then called the Cree Wellness Curriculum (CWC) would adhere to these requirements.**

### **Data gathering**

- **Interviews were conducted with teachers, student affairs technicians (SATs), guidance councilors and principals in Mistissini and Oujé-Bougoumou to obtain their views on the lifestyle choices of their students, probable causes**

for the risky behavior and how they felt these issues could be effectively addressed.

#### **Expert participation**

- Selected teachers in the communities received copies of sample lessons from the Northwest Territories Health Curriculum to try with their students. Feedback on the usability of these types of materials and themes was obtained via questionnaire.

#### **Curriculum design**

- It was decided to base the structure and flow of the curriculum on the First Nations' sacred symbol of the Medicine Wheel, the importance of colour and directionality. Four animals significant to Northern Quebec Cree (Moose, Bear, Geese and Wolves) were selected to distinguish each unit.
- The curriculum was designed around 16 lessons divided into 4 units. Each unit was divided into 4 lessons and each lesson had 4 key elements all respecting the circular flow around the Medicine Wheel:
  1. Wellness Message – First Nation philosophy to guide the focus of the lesson
  2. Focus Attention – usually conducted in a Talking Circle to introduce concepts, encourage discussion and storytelling.
  3. Activity – culturally specific, usually group work, most often based on the right brain learning style (visual, hands-on, concrete, spatial, kinesthetic, musical, inter and intra personal)
  4. Reflection – often conducted in a Talking Circle or in a relaxed set up to encourage reinforcement of concepts learned through discussion.
- Introductory notes were designed to inform teachers of the reasons for the development of this curriculum and its underlying educational philosophy,

how to use the lessons, seatwork and resource materials, and to encourage their involvement in the ongoing development process. (Author and one designer)

#### Resources

- The author composed and coordinated the recording and packaging of eight original and bilingual (Fr. Eng.) songs based on the curriculum themes and to accompany the lessons for grades 1-4. The music notation was produced using a music program. This was bound with the lyrics into a songbook for the teachers and students. (*Author alone*)
- Videos, posters, books were obtained to support some lessons.

#### 1<sup>st</sup> Draft

- The first draft of the CWC was printed and bound with a cover from a poster representing Cree community members engaged in healthy and culturally specific activities. These were distributed to selected teachers in Oujé-Bougoumou and Mistissini.

1998

#### Feedback

- Feedback was obtained on the 1<sup>st</sup> CWC draft from a few teachers in Oujé-Bougoumou and a dental hygienist. (*Mistissini was experiencing serious problems which closed the school temporarily and so could no longer participate.*)
- Another First Nation curriculum designer examined the unit on sex education for content appropriateness. A face to face discussion was conducted to obtain feedback. Results were shared with the team. (*Author alone*)

### **Research (*Author's work*)**

- More research was done into existing First Nations oriented educational materials to allow for a more “First Nations’ approach” to information delivery and learning.

### **Resource selection**

- New books, videos, music and games were researched and acquired to incorporate into the curriculum and serve as the basis for lessons.

### **Revision**

- Where deemed appropriate and, or necessary based on expert and teacher input, the curriculum was modified.
- A Cree artist was contracted to design appropriate images for use on the cover and on student work sheets. (*Author found artist and coordinated all work*)
- The text format and package were changed to incorporate art by the Cree artist. The curriculum name was changed from the *Cree Wellness Curriculum* to the *Miyupimaatisiiuwin Curriculum*

### **2<sup>nd</sup> Draft**

- The 2<sup>nd</sup> draft of the curriculum (green cover) was printed, bound and given to the PHM coordinator to present to community principals, Council Commissioners and CSB directors at a meeting in the fall.
- Copies of the 2<sup>nd</sup> draft of the curriculum were produced for distribution to each community school and council commissioner as well as the CSB pedagogical staff in Chisasibi.

1999 (*Author's work alone*)

**Expert Review (formative evaluation)**

- Education and health subject matter experts (SMEs) from the CSB, CBHSSJB, four communities as well as from Montreal were contacted to review and comment on the Miyupimaatisiiuwin Curriculum. Those interested in supporting the project received copies of the materials and were requested to examine them for thematic, cultural, age and grade level appropriateness. To allow for the most and unrestricted nature of their views it was suggested they write their comments directly on the materials.

**Meetings**

- Meetings were arranged with principals in four communities to obtain input regarding the viability of using the curriculum in their schools. Three principals had not received the curriculum and only one took the time to look over some of the lessons.

**Presentation**

- The curriculum was presented to teachers in three schools as they had never received their copies. After close examination of the materials, most teachers wanted to receive a copy to use with their students.

**Feedback**

- Feedback was obtained from all SMEs and examined for appropriateness.

**Research**

- It was necessary to examine more already-existing FN educational materials on nutrition and diabetes prevention as the feedback from SMEs on some lessons indicated content inaccuracies.(see curriculum references)



## **Revision**

- **Lessons: Extensive modifications were made to lessons on nutrition, safety, and solvent abuse based on the expert feedback and recommendations suggested in the existing materials. Some modification was made to lessons on values to include an already-existing list of Cree values previously unavailable.**
- **Some student seatwork was modified by the Cree artist and the author to reflect more culturally specific images.**
- **Changes were made to the scope and sequence and to the subject wheel in the introductory notes to reflect changes in lesson titles.**

## **3<sup>rd</sup> Draft**

- **A 3<sup>rd</sup> draft of the lessons was printed and delivered to the director of the PHM.**
- **A meeting was attended by decision-makers from the CSB, the PHMCR director and the designer to discuss the 3<sup>rd</sup> draft and how to proceed towards full implementation of the Miyupimaatisiiuwin Curriculum.**

*Appendix - B*

*Education and research materials*

## **Educational and research materials consulted**

**Already existing health educational materials and research reports examined prior to and during the development of the Miyupimaatisiiuwin Curriculum.**

**Bachman-Carter, K. (1992). *You Can Make a Difference: Developing Comprehensive School Health Education Programs in American Indian Communities*; Indian Health Service Diabetes Program, Albuquerque, New Mexico.**

**Barss, Peter. (1998). Injury Prevention Series : *Drowning Deaths Among the Cree of Eeyou Istchee*, Québec, Canada - A Ten Year Study : CBHSSJB and Régie Régionale de la Santé et des Services Sociiaux de Montréal-Centre, Direction de la santé publique.**

**Barss, Peter. (1998). Injury Prevention Series. *Suicide in Cree Communities of Eastern James Bay – A 10 Year Study* : CBHSSJB and Régie Régionale de la Santé et des Services Sociiaux de Montréal-Centre, Direction de la santé publique de Montreal-CentreQuébec, Canada.**

**Berryman & Breighner, K.W. (1994) *Modeling Healthy Behavior: Actions and Attitudes in Schools*; ETR Associates: Santa Cruz, California.**

**Brackenridge, B.P. & Warshaw, H. (1995). *The Healthy Eating Food Guide For Diabetes: A Nutrition Education Tool For Native Americans*; Indian Health Service Diabetes Program, Albuquerque, new Mexico.**

Caring Together: Board Game designed, developed and evaluated by the Native Physicians Association of Canada. (Dr. Tookenay)

Crinklaw-Kiser, D. (1996). Integrating Music with Whole Language through the Orff-Schulwezk Process. In Young Children. July

Harrington, G.G. (1998). *Considerations for School Suicide Prevention Programs*. In SIEC ALERT – Suicide Information & Education Centre, Calgary, Alberta. (October #32)

Harrington, G.G. (1998). *Trends in Canadian Suicide*. In SIEC ALERT -Suicide Information & Education Centre, Calgary, Alberta. (June #30).

Hill, R. (1997). Introduction to the Akwe :kon Journal, NMAI.

Henley, Thom. (1996). *Rediscovery: Ancient Pathways New Directions*; Lone Pine Publishing, Edmonton, Alberta, Canada

John, Rosa, et al. (1994). *Inside the Circle: Kehewin Native Education Manual* by Kehewin Performance & Resource Network. Canada. Ottawa, Ontario

Kids and Alcohol: Facts and Ideas About Drinking and Not Drinking: National Council on Alcoholism. Canada

Lazdauskas, H. (1996). *Music makes the School Go 'Round : Music Abilities : are you fostering them?* In Young Children. July.

Leclerc, Lucie. (1998). *CBHSSJB Nutrition Education Program: Adapted to the James Bay Cree - Kindergarten to Grade 6*; Chisasibi, Quebec.

Les compétences essentielles liées à la santé et au bien-être à intégrer au curriculum des enfants de l'éducation préscolaire et des jeunes du primaire et du secondaire au Québec, 1998;

Minister of National Health and Welfare Canada. (1988). *Promoting Healthy Weights : A Discussion Paper*. Health Services and Promotion Branch Health and Welfare Canada; Ottawa, Ont. Canada.

Minister Of National Health and Welfare. (1995). *Native Foods and Nutrition: An Illustrated Reference Manual*, Medical Services Branch Health Canada, Minister of Supply and Services Canada. ISBN 0-662-23218-6

Ministère de l'Éducation, (1995). *Personal and Social Education*. Direction générale des programmes. Gouvernement du Québec. Bibliothèque nationale du Québec. Québec, Canada

Ministère de la Santé et des Services sociaux and ministère de l'Éducation. (1993). *Health and Social Services in Schools: Guide to ensure concerted action between CLSCs and School Boards*; ISBN 2-550-23586-;

Mokakit Education Research Association. (1992). *Mokakit - First Nations Freedom: Curriculum of Choice: Alcohol, drug and substance abuse prevention: Kindergarten to Grade Eight*. Winnipeg, Canada.

Morkill, M; Saad-Haddad, C. Skye-Delaronde, W. (1997) *Kateri Memorial Hospital Centre Health Education Program for Kahnawake Schools Diabetes Prevention Project*; Community Health Unit, Kateri Memorial Hospital Centre.

Moyer, K. C. (1991). *Kids and Conflict: Teaching creative conflict resolution skills to grades 7 & 8*; *The Network: Interaction for Conflict Resolution*; Conrad Grebel College, Waterloo, Ontario.

Northwest Territories School Health Program (198 ) Government of the Northwest Territories Ministry of Education.

Odawa Child Care Manual (199 ). *unknown*

Petawabano, B.H. (1998). Cree School Board / Cree Health Board Protocol: *Partnership in Health – Executive Summary and Recommendations*.

Post, J. (1996). *Comprehensive Health for the Middle Grades: Family Relationships*; ETR Associates: Santa Cruz, California

Post, J.(1996). *Comprehensive Health for the Middle Grades: Violence*; ETR Associates: Santa Cruz, California

Raphael, D. (1993). *Self Esteem and Health – Should it be a Focus?: In Issues in Health Promotion Series*. Centre for Health Promotion and ParticipACTION, University of Toronto, Canada

Reano, L. et al. (1996). *The Ristra Curriculum: Developed by: Community Health Education Program; Albuquerque Area HIS.*

Safer Sex and Me (199?) *unknown*

Mast, C. K. (1997). *Sex Respect – The Option of the True Sexual Freedom.* Respect Incorporated. Bradley, Illinois

Tarbell, Regina. (1999). *Fetal Alcohol Syndrome and Effects.* In In Touch: The National Indian & Inuit Community health Representatives Organization Publication; Winter, Vol. 11.

Turning Into Health & Building the Pieces Together. The Alcoholism Foundation of Manitoba;

*Appendix - C*

*Lesson sample*  
*- grade 2*

*Student activity sheet sample*  
*- grades 4 & 7*

## Lesson 7

### “doing things together”

#### Theme

Strong Relations / Friends / Caring

#### Objective

To identify the importance of helping and sharing

#### Preparation

- Invite Elders, mothers, aunts to come make something, traditional or not, with the students
- Let's Live Well Songbook and Tape: Track 1 "Sharing"
- "Who Will Help Me" Activity Sheet 2.7.1

#### Procedure

##### 1. Wellness Message

When people help each other they are sharing of themselves because they care.

##### 2. Focus attention

Ask students how they help other people (at home, in school, in the bush, etc.) How do other people help them or each other?

- older child helps younger child
- teacher helps student





- nurses help someone who is sick
- parents help grandparents

Tell the story "Who Will Help Me" on Activity Sheet 2.7.1. Ask students how they think the mother must have felt when no one wanted to help.

Play the "Sharing" song (Track 1). Help students learn to sing along (see lyrics in the Songbook). After the song, ask students what they think the Wellness Message is this week.

### 3. Activity

Invite mothers and / or Elders from the community to class to help make something. Explain that the guests have come to share their time, knowledge, culture, love. Prepare bannock in small groups with one adult per group. Before the guests leave, students sing the Miyupimadtjiiuwin songs they have learned. Emphasize the idea of sharing what they have learned with others.

### 4. Reflection

Ask students what it was like working together. What did they have to share? End by singing the "Sharing" song again.

### Extension Ideas

- Divide students into pairs and have each pair do a different activity together, e.g.:  
In class: build a puzzle, clean the chalk board, stack the book shelf...  
Outdoors: clear an area of snow, collect garbage, play ball...  
Each pair of students share a piece of paper and draw the things they did together.



- Make a class collage about "Doing Things Together". Let students make their own decisions on how to produce the collage. Discuss the collage. Ask students how they decided to make it. Was it easy / difficult? Why?
- Students have a three-legged race (outdoors). After the race, ask them what difficulties they had. Point out that they had to move at the same time. They had to help each other.

Sharing

Barbara Roney

Musical notation for the song 'Sharing' in G major, 4/4 time. It consists of two systems of a vocal line and a guitar accompaniment line. The first system is marked 'A' and the second 'B'. The lyrics are: 'My family shares the meat so that we all can eat. At home we share our love and helps to keep us strong.' The guitar accompaniment uses chords G, D, E, and D.

Song Form: 1) AAB 2) AAB 3) AAB

# Sharing

Muscle & Lyrics: B. Roney

1 My family shares the meat  
So that we all can eat.  
At home we share our love  
That's what helps keep us strong

Chorus: Ay yeh. Ay yeh. Ay ee ee ee ee.

2 We all help out at school  
Sharing the jobs we do.  
I share my toys with you  
'Cause it makes me feel good

Chorus: Ay yeh. Ay yeh. Ay ee ee ee ee.

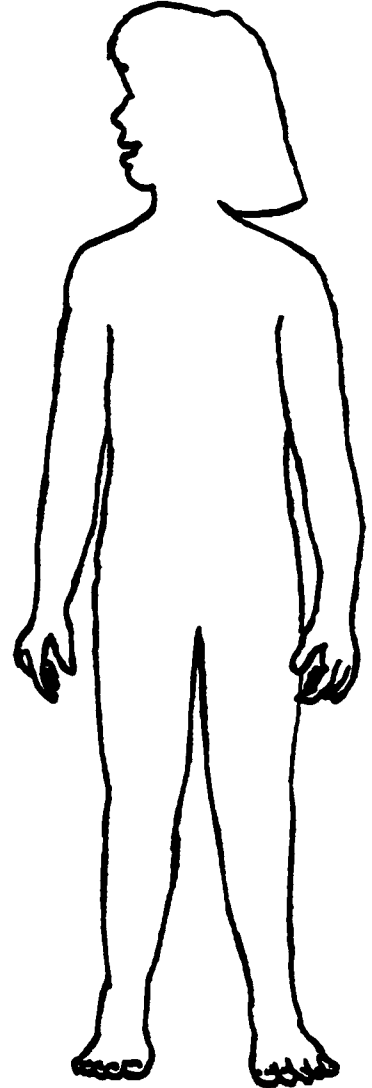
3 Elders tell stories of  
Eeyou (a) long time ago  
Sharing so we grow strong  
Teaching where we come from.

Chorus: Ay yeh. Ay yeh. Ay ee ee ee ee.



# Measuring Me

1. Head: around \_\_\_\_\_
2. Forehead to chin: \_\_\_\_\_
3. Shoulder to hips: \_\_\_\_\_
4. Elbow to fingertips: \_\_\_\_\_
5. Nose to fingertips: \_\_\_\_\_
6. Across the shoulders: \_\_\_\_\_
7. Shoulder to elbow: \_\_\_\_\_
8. Knee to floor: \_\_\_\_\_
9. Hip to floor: \_\_\_\_\_
10. Foot: width = \_\_\_\_\_  
length = \_\_\_\_\_
11. Hand: width (4 fingers)= \_\_\_\_\_  
length = \_\_\_\_\_
12. Thumb: tip to 1<sup>st</sup> knuckle = \_\_\_\_\_
13. Around the waist: \_\_\_\_\_
14. Neck: \_\_\_\_\_
15. Height: \_\_\_\_\_



Miyupimatisiwin Activity Sheet

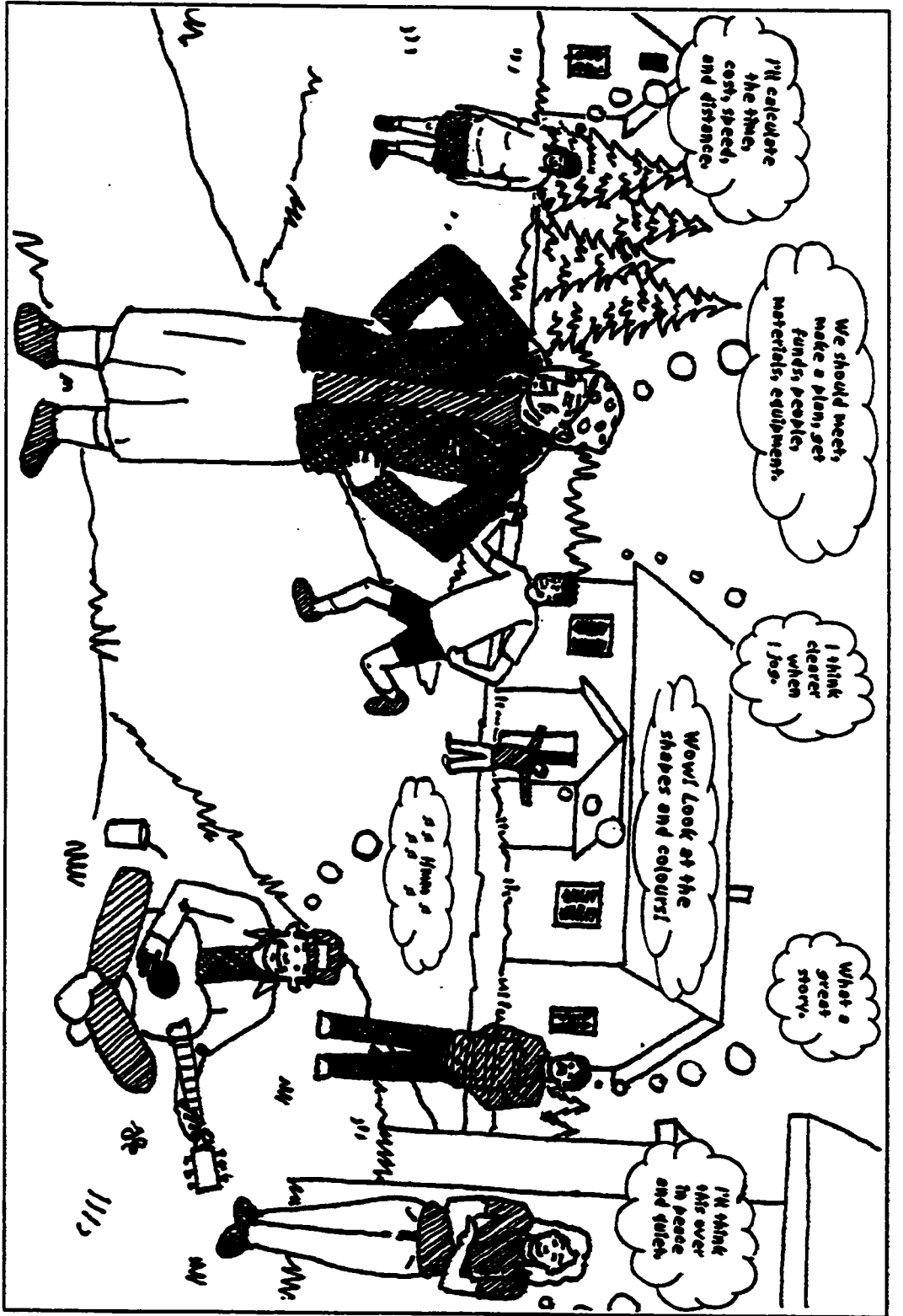
**Times:**

16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_

**4.9.1**

Measuring Me

# All Kinds of Minds



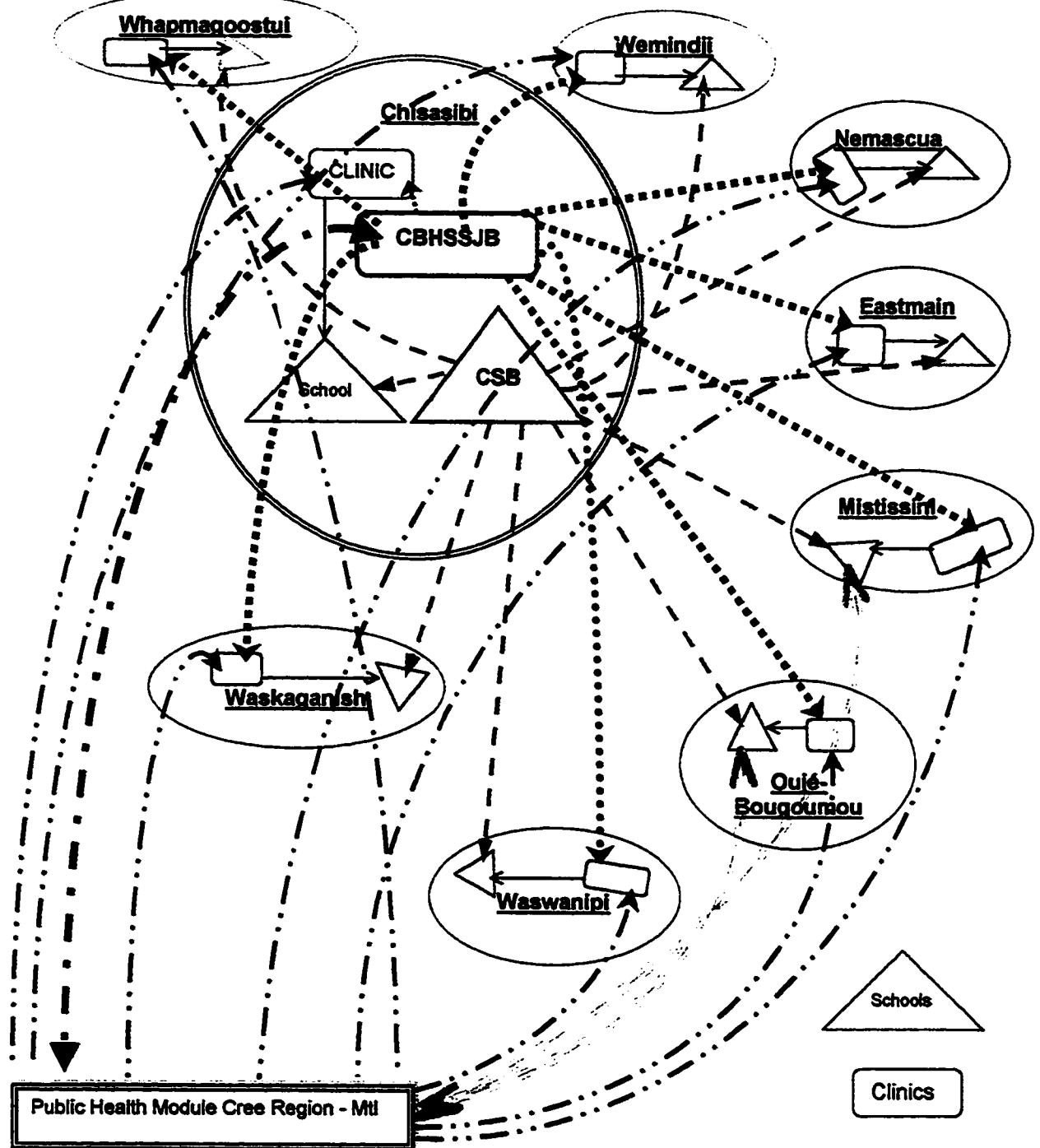
Mlyupimaatisiliuwin Activity Sheet

7.3.8

*Appendix - D*

*Communication routes between PHM and  
Cree communities*

Communication routes between PHM and Cree communities



PHMCR-MTL	← - - - - - →	CBHSSJB head office Chisasibi
PHMCR-MTL	- - - - - →	9 community clinics;
<u>PHMCR-MTL</u>	← - - - - →	<u>Oujé-Bougourou, Mistissini Schools (1997 - Schools initially</u>
		<u>agreeing to review, test, provide input for and feedback on the new health education lessons)</u>
CSB	- - - - - →	9 community schools
CBHSSJB	· · · · · →	9 community clinics
Clinics	— — — — — →	Schools (CHR's monthly presentations on health issues)

*Appendix - E*

*Expert review process letter*

*Review process communication routes*

*List of Subject Matter Experts*

**Expert review process letter**

**Barbara Reney  
Curriculum designer  
Public Health Module Cree Region  
Duke Street,  
Montreal, Quebec  
February, 1999**

**Dear \_\_\_\_\_**

**Thank you for participating in the expert review of the Miyupimaatisiiwin Curriculum. Your comments and recommendations will help ensure the content is accurate, as well as thematically, culturally, age and grade-level appropriate.**

**Please take your time to examine the materials carefully and feel free to write any concerns or recommendations you have directly on the curriculum page(s) you wish to comment on.**

**I will contact you within the next two weeks to arrange an appointment for us to discuss your views. Your input is vital and greatly appreciated.**

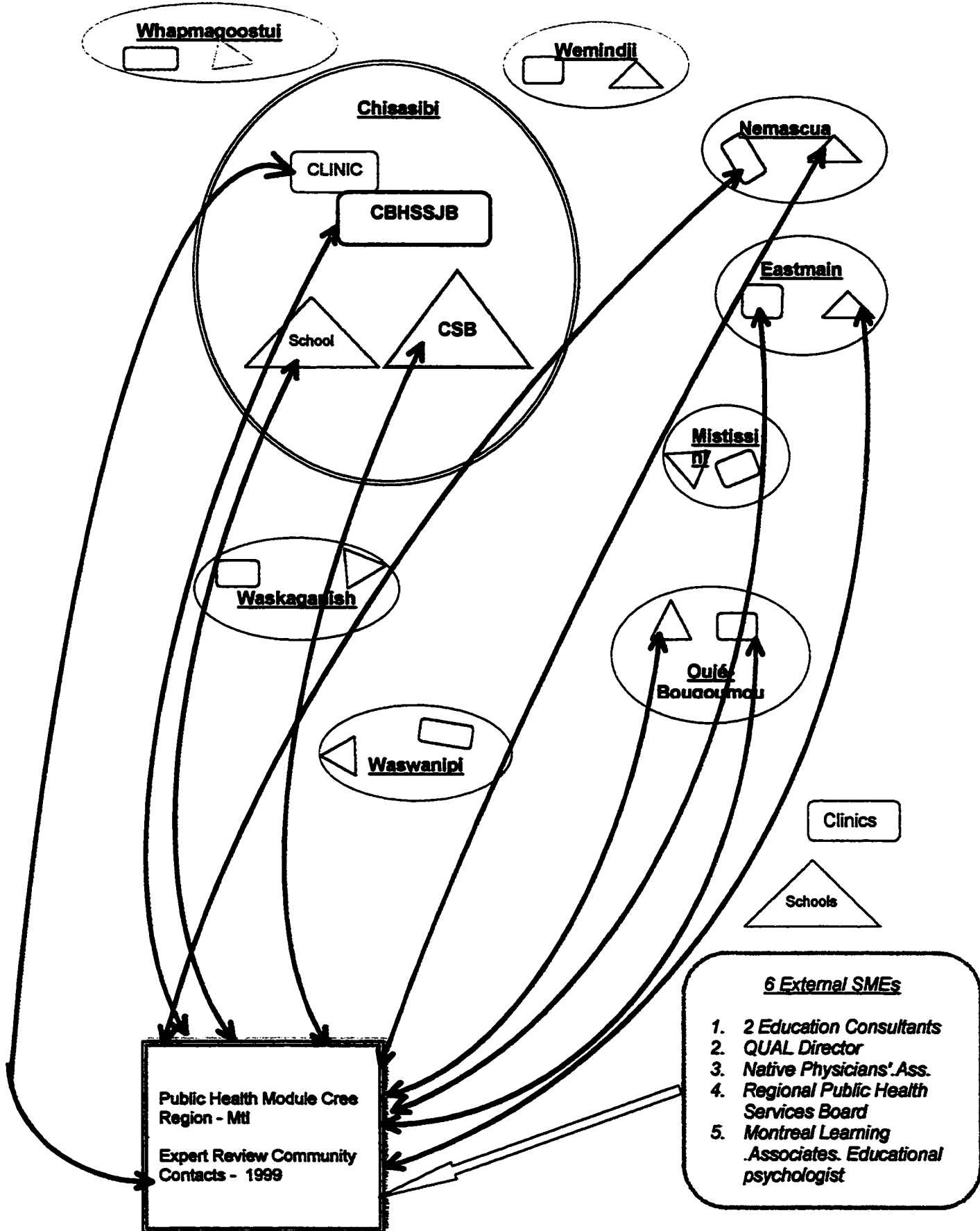
**Thank you again**

**Truly**

**Barbara Reney**



Expert review communication routes



## **List of Expert Reviewers**

The following is a list of subject matter experts (SMEs) who voluntarily reviewed the indicated portions of the 1998 version of the Miyupimaatisiuiwin Curriculum between March and June 1999. All participants were selected from health and education professionals who have current or recent past experience working with learners, teachers, educational services staff and health workers in Northern Québec Cree Communities. All SME's were first contacted by phone to determine their interest and availability to participate. Copies of the materials with an explanatory letter were delivered to those who were willing to review the curriculum and comment on its viability.

### **Education SMEs**

1. Principal, Oujé-Bougoumou School.

⇒ Reviewed Lessons #s 9, 12, 13, 14, and 15, grades K-8, for thematic, age and grade level appropriateness.

2. Grade 7 and adult education teacher at Oujé-Bougoumou School.

⇒ Reviewed Lessons #s 8, some 7, and 11, grades K-8, for content and age and grade level appropriateness.

3. Student Affairs Technician, Oujé-Bougoumou School.

⇒ Reviewed Lessons #s 1, 2, 3, 4, 5, 6, 7 and 16, grades K-8, for Cultural and thematic appropriateness.

4. Coordinator of Student Affairs Technicians, Chisasibi

➤ Reviewed the Introduction and Lessons #s 1, 2, 3, 4, 5, 6, 7, and 16 for cultural appropriateness.

5. Cree Culture Coordinator, Chisasibi

⇒ Reviewed the Introduction and Lessons #s 1, 2, 3, 4, 5, 6, 7, and 16 for cultural appropriateness.

## **Health**

### **6. CHR, Oujé-Bougoumou Healing Clinic.**

⇒ Reviewed Lessons #s 10, 11, 13, 14, and 15, grades K-8, for accuracy of content, thematic appropriateness, compatibility or interference with already existing health related program materials, cultural appropriateness and suggested reference to CHR involvement in the lessons.

### **7. CHR, Nemaska Health Clinic**

⇒ Reviewed Lessons #s 8 and 10, grades K-8, for accuracy of content, thematic appropriateness, compatibility or interference with already existing health related program materials, cultural appropriateness and suggested reference to CHR involvement in the lessons.

### **8. NNAADAP worker, Nemaska (temporary replacement)**

⇒ Reviewed Lessons #s 13, 14, 15, grades K-8, for accuracy of content, compatibility or interference with already existing health related program materials, cultural appropriateness and suggested reference to NNAADAP worker involvement in the lessons.

### **9. CHR, Eastmain**

⇒ Reviewed Lessons #s 8 and 10 for accuracy of content, thematic appropriateness, compatibility or interference with already existing health related program materials and suggested reference to CHR involvement in the lessons.

### **10. NNAADAP worker, Eastmain**

⇒ Reviewed Lessons #s 13, 14, 15, grades K-8, for accuracy of content, thematic appropriateness, compatibility or interference with already existing program

materials, cultural appropriateness and suggested reference to NNAADAP worker involvement in the lessons.

**11. Nurse & Diabetes Specialist with the Public Health Module Cree Region.**

⇒ Reviewed Lesson # 10, grades 1-8, Nutrition, for accuracy of content, feasibility, and relationship to diabetes.

**12. Nutritionist, Chisasibi.**

⇒ Reviewed Lesson #9, grade 1 and #10, grades K-8, Nutrition, for accuracy of content, consistency with existing instruction on nutrition, compatibility or interference with already-existing programs on Nutrition.

**External Reviewers**

**13. Educational Psychologist, Learning Associates of Montréal.**

⇒ Reviewed Lessons #s 2, 3, 4, 5, 6, 7, & 12, grades 1-8, designed to address issues of self-concept, self-esteem, communication skills, interpersonal relationships, peer pressure and goal setting.

**14. President of the Québec Association for Adult Learning and former teacher and curriculum designer in Chisasibi.**

⇒ Reviewed the Introductory notes.

**15. Director of Health Promotion, Regie Regional de la Sante Publique.**

⇒ Reviewed the Introductory notes.

**16. Educational Consultant, Dreamcatcher Educational Service**

⇒ Reviewed Lesson # 8, grades K – 8, designed to address the topic of sex education.

**17. Educational Technology Consultant**

⇒ Reviewed the Introductory notes. and lessons

*Appendix - F*

*Review process feedback*

## **Qualitative data from expert reviewers**

The following has been compiled from comments and recommendations regarding content accuracy, cultural, age, grade level and thematic appropriateness of the lessons in the 1998 version of the Miyupimaatisiiuwin Curriculum. All feedback was provided either as notes or comments written directly on the lessons or from direct face-to-face and telephone conversations with the health and education professionals listed above.

### **1) Introduction**

- Put the already existing list of "Cree Values" in the introduction. (Cree developed)
- Reinforce the concept of this being a curriculum offering a "holistic" approach to health and well being.
- Include reference to the Kahnawake Schools Diabetes Prevention Program, the Nutrition Education Program (1998), Indian Health Service Complications Series Diabetes Curriculum, Indian Health Service Diabetes Program (1995), Ristra Curriculum (1996)
- All units should have a list of the educational objectives for the four lessons in relation to: Personal & Social Education (Health), Cree / English / French L1/L2, Natural Science (Health), Art, Music, Fitness / Gym,

### **Unit 1**

#### **2) Values**

##### **Grade 2, Lesson #2, All I See Is Part of Me**

- Focus Attention:** How do you encourage students to "see different things"? Will the teacher be able to understand this? Translate into Cree?

### Grade 4, Lesson #2, Secret of the Peaceful Warrior

- **Activity:** Asking students to take written notes at grade 4 may be too difficult (i.e. writing / language skills, second language).

### Grade 6, Lesson # 2, Dreambirds

- **Focus Attention:** How will "value words" be explained?
- **Suggestion:** The already existing Cree Values could be used in these lessons.  
\* Another visual, art-based activity that would explore Cree-specific values, relevant to each student was suggested. This could be written into an existing lesson as the activity.

## **Unit 2**

### **3) Friends**

#### Grade 3, Lesson #7, Friends Care

- **Activity:** Would they be able to develop this without the teacher's help?
- **Suggestion:** After each group has shown their sketch, ask the students what it was that would make them most want to be friends with this group.

#### Grade 4, Lesson #5, Eye to Eye

- **Reflection:** Written language skills may not be adequate for this activity. Add on another way for the students to create their own poem - taped, filmed, drawn, danced, acted, teachers or older students from another class can write them.

### **4) Sex Education lessons**

#### *Specific*

#### Grade six: Lessons #7, #8, #11

- It was felt that these lessons would be more appropriate at the grade seven, secondary I level. There was concern that the content and approach used for these lessons at this

age may give students the "idea" of having sexual relations. It was suggested that the focus should be more on "good relationships", how to deal with "peer pressure" in general. Also, the person did not have the video "Postponing Sexual Involvement" in order to get an accurate sense of the lesson

- These lessons appear appropriate for the students. It would be better to use texts that visually reflect First Nation's people.

### *General*

- All Sex Education materials must be accepted by the Parent's Committee of each community before the teachers will be allowed to deliver these lessons. So it was strongly recommended to have a meeting with this group and have teachers meet with the parents to discuss the content.
- The sex education lessons package designed for the Cree parents needs to be redone. As these people are not teachers, they shouldn't have teacher's lessons. The whole content of the Parent's package, from Kindergarten to grade 8, could be put onto a couple of pages.

### **Unit 3**

#### **5) Fitness - Lesson #9**

### *General*

It has been strongly recommended that all references to the BMI chart and related activities should be removed. This instrument was developed based on a Caucasian model. This is not used with young children and can have an adverse effect on youth entering puberty. These are the age ranges covered by the curriculum - 6 years to 15/16 years old. It would be better to research for other models, redesign these lessons if they are BMI-dependant, leave the use of the BMI to health professionals.



## **6) Nutrition - Lesson #10**

A lot of concern has been expressed about the accuracy of the content, language, costs and availability of materials, and feasibility of these lessons. As the comments from the Nutritionist are extensive, all are not entered here.

### **Kindergarten: Lesson #10**

**Suggestion:** Add the reasons why food is or is not good to eat - to grow bigger, for a healthy body, to be able to learn, play, sleep well. What is good about different foods - taste, look, smell and feel. This can help develop students' communication skills and offer them opportunities to communicate feelings about non-threatening topics such as "bannock" and "moose tongue" or "berries" and "rice crispies".

### **Grade 1: Lesson #10**

- ❑ **Preparation time?** This appears to take too much time to prepare. Who will pay for the fresh fruit to make the snack? Is this food ever available in the communities or at least when the teacher would want to do this lesson? Who will collect materials - fresh or pictures?
- ❑ Explain concepts of "healthy snack", variety, quantity, quality, moderation, positive attitude, feeling good about self.
- ❑ **Language:** fuel - analogy =car + gas, Energy thieves?, vitamins or building blocks instead of nutrients, (re-do W. message).
- ❑ **Activity:** white flour is not always a characteristic of non-healthy food (i.e. most bannock is made with white flour and appears on the Traditional Native Food Guide.
- ❑ **Extension:** Chewing food 32 times? Is this realistic for grade 1? What is the link to the lesson?
- ❑ **If actual food is involved in the lesson:**

i.e. introduce using the 5 senses to develop knowledge of food

(a) *eyes* - look at the size, shape, colour of foods;

(b) *nose* - smell the apples, carrots, bread, etc.;

(c) *hands* - feel the different food textures;

(d) *ears* -listen to how foods sound when being eaten - apples, crackers, carrots, etc.;

(e) *taste* - take time and enjoy, describe - sour (green apples), sweet (dates), dry (crackers), chewy (?), etc.

- **Seat work:** Why are images repeated?, Where are the names to more easily identify items as some aren't clear, lettering on 1b is sloppy, focus should be on food being good for us, helping us grow
- Is this lesson truly feasible? Would it not be more appropriate to have nice pictures pasted on cardboard representing the fruit?
- **Where is the link between food guide / choices and diabetes?**

#### **Grade 2: Lesson #10**

- **Language:** Go, Glow, Grow? Level of language.
- **Inconsistency:** Grade 1 had "Energy Thieves" now grade 2 has "Surplus Foods"
- **Content:** Go, Grow, Glow - The information is incorrect? The items are in the wrong order.
- **Extension:** Use pictures, easier to handle and less costly.
- **Where is the link between food guide / choices and diabetes?**

#### **Grade 3: Lesson #10**

- **Preparation:** Traditional / Native Food Guide, Canada Food Guide.
- **Activity:** p. 29 -Distribute copies of Traditional Native (& Canada) food guide(s).
- Show how Cree traditional foods fit into the 4 basic food groups. Show the comparisons.
- **Link between food guide / choices and diabetes?**

#### Grade 4: Lesson #10

- **Preparation:** Copies of the Traditional Native Food Guide
- **Activity:** Ask students what they ate today, yesterday, at Christmas, summer, etc. Talk about different things we eat every day.
- Ask what 4 food groups are? Show 4 groups on the board - list some foods eaten today into each section.
- Ask St. to name traditional Cree foods, what food group they fit into on the food guide.
- Compare the two guides.
- Ask St. to name some traditional treats, non-traditional treats, where they fit on guide(s)
- **Where is the link between food guide / choice and diabetes**

#### Grade 5: Lesson #10

- The fry pan in the classroom was seen as a potential fire hazard and too complicated - who brings it in? who operates it?
- Who will pay for the materials? (\$, quantities)
- If the lesson is dependent on the frying pan, what happens if something occurs to prevent the use of it in the classroom? (i.e. forgets to bring, no electric frying pan available, power failure)
- **Where is the link between food choice and diabetes?**

#### Grade 6 Lesson #10

- **Preparation:** Tums, etc.

Why bring in medical preparations like Tums, Preparation H? - There is a risk of misinterpreting the concept of "aids to digestion" and sickness? These items are used when one is sick. Emphasis should be on other ways we can ensure our digestive system functions properly.

- **Activity:** sickness medicines - Tums, Alka-Seltzer, etc. Are you teaching them how to use which medicine for specific problems? Are you approving the use of these substances for health? (i.e. What if a student ingests something toxic and takes Alka-Seltzer? Who will be responsible?)
- **Overhead transparency:** How does the heart aid digestion?, Where's the pancreas?(i.e. Diabetes link), Differentiate between large and small intestines.
- **Extension:** - There is no butcher in the communities.
  - Bringing the digestive parts of an animal into the classroom is considered unsanitary.
  - If a Hunter would do this, the ability to so is also dependant on the time of year, availability, proximity of the Hunter to the classroom / students.
- **Where is the link between food choices and diabetes?**

#### **Grade 7: Lesson #10**

- **Use of the BMI chart is strongly discouraged**
- **Suggestion:** Ask biology teacher to borrow plastic digestive system model for this class.
- **Activity:** The reference to "Diabetics usually don't make enough insulin" is incorrect. First Nations people make too much insulin and the focus should be on "using or absorbing" it adequately.
- **Extension:** Language: "Sticky Surplus Treats' considered too childish for this age group (13,14,15)
- **Computer use:** Access, time available, skills?
- **Link between food choices and diabetes?**

#### **Grade 8: Lesson 10**

- **Activity:** Topics should have more information given.

- 1) Shopping - for what?, why? How many (family of 2, 4 12)
- 2) Preparing - What? vegetables, meat, dairy, fruit, cereals, How? In a healthy way.
- 3) Body Image - what is it, what can a healthy one do that an unhealthy one can not do? What is the influence of heredity on it?
- 4) Eating - how much, how often, for what purposes, differences of eating habits for different age groups, lifestyles.
- 5) Exercise - what role does exercise play in determining eating habits, quantities, compare diets for athletes, babies, sedentary, Elders.

## **7) Goals**

### **Grade 3. Lesson #12. Changing Directions**

**Activity:** Do all grades constantly review previous lessons?

**Suggestion:** Teachers should encourage students to establish achievable, short-term goals.

## **Unit 4**

### ***General comment***

The possibility of having the younger students do more role-play in the lessons was suggested. For example: having students take the roles of parents, adults and youth they know. A lot can be revealed about life outside the classroom during these types of activities. Also the children can learn more through observation of appropriate behavior and compare it to appropriate behavior.

- ❖ The suggestion for incorporating more role-play activities may also work well for the lessons on Anger, Family, Friends, Self-concept, and Values.

## **8) Solvents & Tobacco**

### **Grade 1: Lesson #14**

**Activity:** Putting a sock over a car tailpipe, turning on the car and then smelling the sock after is considered extremely inappropriate and dangerous behavior for students of any age and especially the very young ones of ages six and seven.

**What teacher would do this? How would parents perceive this activity? What is the risk of children doing this outside of school?**