CHAPTER 6

# Incorporating Indigenous Knowledge in Post-secondary Teaching

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This chapter describes a 'generative curriculum' approach that: (a) promotes active learning by encouraging students to participate in the construction of knowledge; and (b) ensures the relevance of curriculum by asking learners to investigate topics that arise from local social development goals. Three pilot projects, spanning two decades and three continents, are described here to illustrate this generative approach. All involve post-secondary training in areas of social science or human services. Rather than defining the relevant content of the curriculum in advance of the course, the pilot projects demonstrate a process-oriented, 'generative' approach: only part of the curriculum is pre-scripted and part of it evolves during the course through students' interactions among themselves and with representatives of their cultural communities.

*A key principle guiding the three pilot projects is that effective education begins with acceptance of a desire on the part of students to participate in identifying at least some of the content, choosing at least some of the activities, and participating in at least some of the assessment of their own learning.*

The projects are presented in the chapter in chronological order. The first project, located in Malaysia, is described briefly to introduce principles that have been substantially expanded in the latter two

innovations involving my colleague, Alan Pence, at the University of Victoria, Canada, and myself. The first project represented my first significant movement away from a didactic approach to a student- and community-centered approach that involved non-student community members and elevated the importance of indigenous knowledge. The second project, involving indigenous communities in Canada, is ongoing and has clearly demonstrated the benefits to students and communities of opening up the foundations of curriculum and teaching so that education is culturally sustaining and grounded in community development. The third case, located in sub-Saharan Africa, offers a preview of a project that will explore the principles of 'generative' curriculum with a networked cohort of learners whose interactions include technologically mediated discussion, face-to-face group work and community consultation.

The driving force for all of the projects is the hope of most communities and countries that education will make sense (that is, resonate with and be useful) to students and the local communities where they are expected to be of service.

> Having taught mainstream courses in two different colleges, I can say that doing the Generative Curriculum, where people representing the students' own cultures play a big role in the teaching, is wonderful. It's so engaging for the students to have that connection to their community right in the curriculum, and it increases their self-esteem to have their culture valued in that way. It gives the program that they're taking credibility, because they know that what they're learning is going to be relevant and it isn't just a canned curriculum brought in from somewhere else. When you're doing mainstream kind of teaching, it's that old approach of filling an empty vessel, and this level of meaning and credibility just doesn't tend to happen.

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A primary purpose of post-secondary education is to promote active exploration and experimentation with new ways of knowing, new criteria for analyzing, evaluating, and combining knowledge and innovative practice models. Yet, a persistent challenge for educators is the question of how to move substantially beyond teacher-directed transmission models, in which learners are passive and learning outcomes are limited, to learners' wholesale adoption of pre-conceived paradigms for producing, organizing and applying knowledge. Educators continue to struggle to find ways to promote

creative, critical thinking and to remove barriers to inclusion of non-traditional knowledge sources, including 'indigenous' knowledge. Since everyone is indigenous to somewhere and therefore all knowledge is indigenous with reference to some location, 'indigenous knowledge' for purposes of the present discussion is defined as knowledge that is embedded in a local geo-cultural community, that has evolved over a long period within that setting, and that is not knowingly imported from a 'foreign' geo-cultural context.

## Incorporating Indigenous Knowledge in Teaching and Learning

Post-secondary education reflects and engenders the culturally conditioned values and practices of those who design and deliver the curricula. This is especially evident in social science, teacher training, and other human service training. Many educators around the globe, especially outside of North America, have expressed concern about the lack of representation of non-Western values, content, and methods at all levels of education (Smith, 1999; Battiste & Barman, 1995; Ki-Zerbo, Kane, Archibald, Lizop, & Rahnema, 1997). There is growing concern among some observers of 'international' education and exchange projects in the majority, non-Western world about the harm that can and has been done by ethnocentric curriculum, programs of research and technical assistance presided over by Western educators (Ball, 1998; Dahlberg, Moss, & Pence, 1999; Ki-Zerbo, Kane, Archibald, Lizop, & Rahnema,1997; Shiva, 1997). This critique extends to the well-documented experience of cultural holocaust caused by the imposition of 'best practices' in Western education on traditional cultures, languages and communities of indigenous peoples in North America (Battiste & Barman, 1995). A concern with promoting an anti-colonial approach to education was a major impetus for my involvement in the three pilot projects described in this chapter.

## Participatory Teaching and Learning

A key principle guiding the three pilot projects is that effective education begins with acceptance of a desire on the part of students to participate in identifying at least some of the content, choosing at least some of the activities, and participating in at least some of the assessment of their own learning. We have learned from research the importance of student-centered teaching strategies that promote

'active learning' rather than passive receipt of provided knowledge at all levels (Ball, 1994). For most students, true engagement in learning requires a curriculum that is relevant and personally meaningful and that affirms the student's own identity and experiences, as well as classroom processes that empower students, giving them a sense of self-direction and self-efficacy (Freire, 1993; Giroux, 1992; Lockhart, 1982). These conclusions have been reinforced in my research evaluating the pilot project with indigenous peoples of Canada (Ball, 2001). A participatory approach is essential within an anti-colonial agenda.

## Teaching as if Students and Communities Mattered

In the three pilot projects described in this chapter, students, their communities, and institutional supporters have sought education that encompasses both locally generated knowledge and knowledge from established canons in Western academe. In the words of an indigenous educator involved in the pilot project in Canada: "We wanted to give students the best of both worlds, and enable them to walk in both worlds." All three pilot projects enable graduates to work in their local communities in ways that sustain and revitalize local cultures. At the same time, graduates acquire credentials and knowledge that have enabled them to develop careers beyond the local setting.

> The effectiveness of this approach would seem to depend less upon the size of the class and more upon the instructor. The instructor needs to be comfortable with not knowing all the answers, able to convey genuine curiosity and openness to thoughtful contributions from a wide variety of sources, and able to facilitate students' own critical analyses and creative constructions.

Across the three projects, instructors promote active learning by structuring high levels of student involvement. Students are asked to contribute their experience and ideas, critique the provided

curriculum materials, gather and discuss information from local sources and gather new data. Ultimately, they are asked to construct concepts and practice models informed by this generated curriculum. Instructors increase the personal relevance and social applicability of what is taught by recruiting large numbers of knowledgeable and respected members of students' local communities to generate curriculum content and learning activities, and to play an active role in teaching. Students ask community members both pre-planned and spontaneous questions about their academic subject matter. At the same time, instructors structure individual and small group learning activities and assignments that engage students with 'mainstream' textbooks and course manuals representing established Western knowledge on the subject. Instructors facilitate the evolution of a 'community of learners' in which students, community members, and the instructor engage in critical discussion, debate, expansion, and application of the indigenous and the university-based curriculum content.

## Example 1: Students Constructing Malay Mental Health

An opportunity to explore participatory pedagogy and to incorporate indigenous knowledge occurred during my decade of teaching in Malaysia when there were a number of partnerships between American universities and regional post-secondary institutions serving rural communities. Inspiration for the pilot project came from students enrolled in an American undergraduate program delivered in Malaysia. All of the students were Malay, Iban or Dayak. Most were devout Muslims from small rural communities. My role was to teach a psychology course that all students were required to take, using a curriculum prescribed by the American university. Students 'complained' that many of the questions that have preoccupied Western social scientists throughout the history of psychology were not important and sometimes had no meaning within their rural, Muslim, collectivist context. In essence, they asked how they could be expected to engage in learning about research and theory on child-rearing, family life, personality types, social behavior, and mental health among mostly white, middle-class people in North America. In particular, they noted that concepts, interventions and outcome measures described in their textbooks on the topic of 'mental health' had little or no applicability to the social structure, expectations and practices in their own communities. This was especially of concern,

since an education and social development priority in Malaysia at that time was to train young people for clinical, counseling and community mental health practice. The students sought and welcomed opportunities to undertake information-gathering assignments that would bring cultural and context-relevant information into an otherwise largely irrelevant curriculum. We decided to focus on the area of mental health with a fresh approach to teaching and learning.

*Communities of learners can also create new knowledge that is culturally and contextually appropriate. Students can experience a high degree of agency in determining what they learn and how they learn it. Their education can reflect the settings in which they live and intend to work.*

The innovation, which came to be a regular part of the psychology course, was aimed at a student-driven elaboration of culturally consistent, community-appropriate concepts and practices for promoting 'well-being'. First, students and cultural 'informants' in the students' communities compiled, catalogued and critiqued local (*emic*) beliefs, concepts and prevalent practices to promote, protect and restore 'mental wellness'. Second, this 'community of learners' engaged in an exploration and critique of North American (*etic*) concepts, programs of research and 'best practices' pertaining to 'mental health and illness'. Finally, the learners developed a framework (*derived etics*) for their own inquiries and for applying a hybridized indigenous-Western approach to developing capacity for community service in the area of mental wellness (Ball, Muzlia, & Moselle, 1994).

This initiative yielded insights that guided my involvement in the two more recent pilot projects:

1. Ensuring the relevance and usefulness of curriculum across varying cultural and community contexts means more than being 'culturally sensitive' and acknowledging the possibility that what we teach may have limited generalizability. Rather, it means leaving

a significant space for the 'unknown' in course curriculum, where students can identify what they want and need to learn.

2. Similarly, being accountable to local supporters of education in order to meet local goals for social development means opening up the foundations of curriculum to include locally generated questions and the means for answering them using local resources. Together with local advisors, avenues for helping students to meet their own learning goals and broader social development goals can be found to bring to the fore context-relevant curriculum content.

3. Students will mobilize their curiosity, creativity, critical thinking and capacity for generating new knowledge when they are given significant roles in creating and constructing at least part of the curriculum.

4. Students, instructors and participating community members can experience transformative learning through teaching and learning processes that lead to the evolution of a 'community of learners' rather than the reinforcement of overly rigid and anachronistic expert-learner-layperson distinctions.

## Example 2: Demonstrations of a Generative Curriculum Model

The second pilot project that effectively combines participatory learning and incorporation of indigenous knowledge was initiated by indigenous communities in Canada. In Canada, the term 'indigenous people' currently refers to the original inhabitants of the land, and includes First Nations (formerly called Indian or native people), Inuit, Aleut and Metis population groups. In North America, mainstream training programs have yielded low rates of retention and completion among indigenous students (Assembly of First Nations, 1988; Battiste & Barman, 1995). As a result, indigenous people are under-represented in all professional and academic fields. There is increasing recognition that for many indigenous students, there is neither intrinsic nor extrinsic motivation to learn the overwhelmingly white, middle-class content or to engage in the types of learning activities found in mainstream post-secondary programs (Wilson, 1994). Many educators have argued that curricula need to incorporate indigenous philosophies, languages, and practices (Assembly of

First Nations, 1988; Battiste & Barman, 1995), and that pedagogical models need to be developed that ensure equity between 'insider' and 'outsider' knowledge frames (Lockhart, 1982).

The pilot project, which is ongoing, consists of the evolution and demonstration of a 'Generative Curriculum Model' for co-constructing and co-delivering a post-secondary program in child and youth development and care (Pence & McCallum, 1994). The project, housed at the University of Victoria, enables the delivery of post-secondary training in indigenous communities, through partnerships between indigenous community groups and the university (Pence & Ball, 1999). Over the past decade, there have been eight partnership programs using the Generative Curriculum Model. The programs have been delivered in very small, remote communities with just 10 students, and in larger urban centres with 23 students in a learning cohort. More information about this initiative is available at www.fnpp.org.

This pilot project started with the assumption that culturally valued and useful knowledge about childhood and child care is embedded within the community and that this knowledge needs to be afforded a central place in the development of training curricula. At the same time, indigenous community partners have asserted that there is value in considering the perspectives and knowledge yielded by Euro-Western research, theory and professional experience. This biculturally respectful stance has laid the foundation for 'communities of learners' to become engaged in co-constructing culturally grounded training curricula that combine the best of both worlds. A recently completed evaluation of this project yielded clear evidence of unprecedented successes for students, the partnering communities and the post-secondary institutions involved (Ball, 2001). The project is unique in Canada with regard to the extent of community involvement and incorporation of cultural knowledge.

## Inside the Generative Classroom

The Generative Curriculum Model places special demands on instructors. Generative curriculum development begins with ensuring that the privilege of knowledge is diffused. Inviting community members as collaborators in co-constructing curricula and placing culturally embedded constructs at the core—rather than at the periphery—of education has profound implications for educators. This approach affects the kinds of questions we ask about the roles of

teachers and students as agents of learning, cultural articulation and social development.

How do instructors facilitate the development of a curriculum that is co-constructed with community members? In the evaluation of this project, 19 instructors, each of whom taught in one of the partnership programs, offered accounts of their experiences using the Generative Curriculum Model. Their accounts underscore how their teaching differs from how they were trained to teach and from prevailing teacher-driven approaches to post-secondary pedagogy. They emphasize that their ability to diverge is essential to realizing the generative and transformative potential of the Generative Curriculum Model. As a way to capture these differences, the instructors were asked to formulate 'advice' for future instructors aiming to teach generatively. The following is what they listed.

1. Respect the cultural and historical experience of community members as valuable sources of knowledge, rather than affording authority only to Western theories, research, and practices.
2. Become familiar with the priorities, practices and circumstances of the community, without becoming involved in them. In the pilot projects, the university-based partners and the instructors did not seek or presume to become experts or insiders of the cultures or social life of the community partners.
3. Respond flexibly to expressions of students' and community needs regarding the program.
4. Ground teaching and learning in consideration of many viewpoints, rather than relying principally on the modernist approach of 'universal' truths and 'best practices' in human services. Instructors need to be self-critical and willing to jettison the 'excess baggage' of their own mainstream training and their own cultural 'blinders'.
5. Be receptive to what the community brings to the project, although these contributions may come in unfamiliar forms and at unexpected times.
6. Accept 'not knowing' where an informed discussion might lead, rather than maintaining the colonialist presumption of 'knowing' what is true and best for all people and relying on pre-packaged curricula developed by 'experts'.
7. Avoid 'doing' when non-action would be more productive of student agency and community participation. Assume an encouraging, non-directive stance while waiting.

8. Be prepared to join in the 'community of learners' as an authentic participant, and be receptive to being transformed as thoroughly as are the students.

Using the Generative Curriculum Model, what is taught and what is learned takes a different shape each time a curriculum is taught, reflecting the unique knowledge that resides in the local community and the experiences of the students.

> It [the Generative Curriculum Model] highlights the importance of the learning process, collaboration, and participation. The result is a holistic experience, grounded in the social context.
>
> Instructor, Nzen'man' Partnership Program

For most instructors in the pilot project, it is the first time they experience working with an indeterminate curriculum and it is challenging.

> When the classes started, I felt like an experienced "rookie". I had never taught generatively before and I felt like I was sitting backwards at my desk.
>
> Instructor, Meadow Lake Tribal Council Program

Each course has a scripted "course pack" created by a university-based team, representing about 50% of the course content. Since context-specific indigenous knowledge is usually not available in written form, instructors rely on participation in curriculum development and teaching by respected cultural informants recruited from the community. Their contributions are often the catalysts for the creative development of new ways of uncovering, organizing, generating and testing knowledge that is relevant to the program context. In most indigenous communities in Canada, Elders are the traditional teachers of younger generations and they are the main repositories of cultural knowledge. Thus, in the partnership programs, Elders contribute significant portions of the content of each course. In some partnerships, curriculum is also generated by younger, respected community members who have first-hand experience with the culture, language, and social practices of students' communities.

> Elders were invited to co-instruct and help with the Generative Curriculum process. They brought with them their wisdom from the accumulation of their lifetime experience and knowledge. We learned together. Each Elder had his or her own special knowledge. We had an Elder who coordinated

the Elders' participation. He knew which Elder to ask for which days of the course, based on who had the most cultural knowledge and experience about the topic we were covering.

*Instructor, Meadow Lake Tribal Council Program*

Instructors report staying alert in every course for opportunities to: (a) involve Elders and other knowledgeable community members in teaching activities (b) integrate teachings gleaned from community members into the course work and (c) encourage students to reflect on the words of community contributors throughout their class discussions, assignments, and practicum activities. In addition to course content, the Elders usually model ways of storytelling and listening, encouraging sharing and facilitating the elaboration of ideas and action plans that are themselves expressions of indigenous cultures.

> It started out that the Elders sat at the front of the class and all the students were at their tables and the Elders kind of chatted to us from up there. The students took notes and it was very much like a classroom situation. Then the Elders said: 'This isn't the way we do this. We don't talk this way, as us and them. And it's disrespectful while we're speaking for peoples' heads to be down like this and writing. We talk in a circle. There's all these tables between us and there's no interaction, there's no real connection happening there.' It was a turning point for our class. We made changes that created more of a sharing kind of situation and it really began to feel like a learning community.

*Instructor, Meadow Lake Tribal Council Program*

Instructors often encounter differences in how understandings are created and the process by which understandings are tested and generalized.

> Knowledge, as I have experienced it, is often derived from outside myself; that is, information is objectified, logical, and provable. Listening to the Elders and other community members, knowledge for them appears to be generated from within oneself, and set within the context of their reality.

*Instructor, Meadow Lake Tribal Council Program*

For most instructors, it is the first time they put the knowledge and experience of students, Elders, and other community members at the forefront in class discussions.

> With the indigenous way of learning, you always try to go from local to national to international. It was important for the

students first to know about the topics from an indigenous viewpoint, and then learn about national policies and programs, and then learn about international programs of research, theories, and practice models.

*Instructor, Nzen'man' Program*

Instructors make an effort to 'lead with the local' knowledge first. Knowledge provided in glossy textbooks often has an intimidating effect on students and community members, who may feel that their words can never be as worthy as the words on the printed page imported from abroad.

> I've always thought of adult learners as being contributors, but never quite so much as being contributors first - asking what they know first and then going to the textbook or other type of material second.

*Instructor, Meadow Lake Tribal Council Program*

Instructors, who are usually not members of students' cultural communities, do not attempt to become 'experts' in indigenous ways of knowing.

> An instructor from outside the culture that the students are from can never really know what the students' experiences have been like, or the experience of living in their communities. You can visit, you can work there every day, and still not have awareness of many things. It is really important to be aware of not knowing and to be open to learning from the students.

*Instructor, Tl'azt'en Nation Program*

Instructors play a key role in facilitating the discussion of various perspectives and sources of knowledge.

> What I wanted for human services as an instructor was probably less important than what the Elders and other members of the students' own communities were saying to them and what their own ideas were. We integrated all those ideas. We didn't all envision the same things, but they were all valuable things for them to consider in becoming effective human service workers.

*Instructor, Meadow Lake Tribal Council Program*

Instructors do not sift, censor, evaluate, or attempt to modify knowledge contributed by students and community contributors. In

order to teach 'generatively,' instructors need to be open to realities that differ from their own and they need to value the knowledge and experience of students.

> I spent the first 3 months learning how to listen, how to provide a climate of trust—a safe place where esteemed community members could feel respected and appreciated for the knowledge they imparted, and a safe place where students could learn new information and assess the value of that information in the context of their own life experiences. As an instructor, I too felt empowered by this process.
>
> Instructor, Cowichan Tribes Program

Instructors typically report that they become more open, reflective, and responsive in their teaching styles.

> The key thing that improved me as an instructor was I learned to wait. I learned not to expect immediate answers, immediate feedback, and to give things a chance, wait for the relevance to emerge. Sometimes people would say something that didn't seem relevant to the discussion and then I would figure out later on that it was really relevant and that the students could quite often see this relevance before I could. I learned to look for messages in different ways too. Sometimes students would use humour to give me a message that something was not relevant for them or that what I thought an Elder had intended to communicate was not what they understood from the same communication.
>
> Instructor, Cowichan Tribes Program

The Generative Curriculum Model requires the instructor to help students make connections in the 'space between' the emergent, indigenous curriculum and the university-based, scripted curriculum.

> Quite often the students would feel like what the Elder said had contradicted something I had been teaching. So, then it was up to me to put it all together on my feet. You really had to be listening in the Elders' teaching session and be thinking as you went, anticipating what this is going to turn into by the next morning. I needed to be ready for my class because those would be the moments when you could really help students to make the connections and comparisons between the indigenous knowledge and the research-based knowledge.
>
> Instructor, Meadow Lake Tribal Council Program

The Generative Curriculum Model involves a 'lived' learning. Providing information and knowledge alone would not produce the breadth of learning that the generative, community-inclusive approach provides.

> What began to happen was an awareness that instruction isn't just here in the classroom. This learning is having an impact on lives, and lives were outside of the classroom. Learning is not neutral and information is not neutral. It has impact, it has meaning, it has motion. The instructional process is far more than a kind of radio beacon: it's not simply the transmitter and the receiver operating independently.
>
> Alan Pence, University of Victoria,
> Pilot Project Co-Coordinator

After considering the scripted course content and the contributions of community members and students, each student is free to select, blend, integrate, or reconstruct perspectives in order to create their own unique perspective. However, they are expected to be able to provide a compelling rationale for their choices, informed by content that has come into the generated curriculum through the inputs from the university, community, or student body.

> One of the things that really struck me is the ability of the students to think analytically and critically. Not only did their academic skills, in terms of their reading and writing and confidence increase, but they also became willing to pick things apart, examine the elements, and reconstruct things in often creative and useful ways. You could see the wheels turning all the time. And what we hear now from the students who are at a 4th-year level, working on their degrees, is that they are influencing the mainstream classroom, and modeling how to critique concepts, bring in culturally based knowledge, and start creating new forms of knowledge. I think that we just challenged them so much to think about theory in terms of its relevance to their own communities and so they became very skilled.
>
> Instructor, Cowichan Tribes Program

Overall, many of the behaviors and attitudes that instructors emphasize are also emphasized in research on effective education. Several investigators have attributed student satisfaction and success to teaching strategies that allow students to have a voice in making curriculum decisions and in sharing their experience and knowledge (Battiste & Barman, 1995; Steffe & Gale, 1995). Investigators have

reported greater gains in learning and performance when instructors are facilitators of learning rather than disseminators of knowledge (Robertson 1996). There is increasing interest among investigators in strategies of educational program delivery, such as the 'community of learners' approach pioneered by Rogoff (1990), that are inclusive of the broader community.

The pilot project with indigenous communities in Canada has involved cohorts not exceeding 23 students. However, if instructors are skilled in the use of cooperative learning, such as described by Jacobs and Loh in chapter 10 of this book, it is feasible to use the Generative Curriculum Model in education programs with larger groups. The effectiveness of this approach would seem to depend less upon the size of the class, and more upon the instructor. The instructor needs to be comfortable with not knowing all the answers, able to convey genuine curiosity and openness to thoughtful contributions from a wide variety of sources, and able to facilitate students' own critical analyses and creative constructions.

## Example 3: Early Childhood Development Virtual University in Africa

The third pilot project explores 'generative curriculum' with a slightly larger student cohort. It also explores the use of learning technology as part of an array of teaching and learning strategies. Initiated by my colleague, Alan Pence, this project is a post-graduate program to support the development of African leaders in early childhood development and care. More information about this project is available at http://www.ecdvu.org.

A cohort of 33 specialists in social education and health policy and programs in 11 African nations are enrolled in the first pilot of this project, which has just begun. Courses combine virtual learning, face-to-face seminars, and community consultation in Africa. A primary goal of African and international sponsors of this initiative is that leaders will emerge with capacities to direct policy and program development that is responsive to local contexts and informed both by indigenous knowledge bases and by findings from Western research and practice.

Following principles of 'generative' teaching and learning, instructors (including myself) engage students in individual and group-based learning activities that involve: (a) structured and systematic student-led uncovering of sources of information and ways of knowing about the determinants of child development in

their own eco-cultural work contexts (b) consideration of Western theories, research methods, findings and practice models pertaining to child development and (c) creation of new knowledge about child survival and development in specific geocultural regions in Africa. A program of research will assess the degree to which this innovative approach achieves its 'generative' goals.

## Concluding Comments

The pilot projects described in this chapter suggest the value of an indeterminate, generated approach to curriculum that invites multiple perspectives on a subject matter and especially emphasizes indigenous knowledge and experiences. Participatory teaching practices that encompass the broader social community can create new communities of learners who are encouraged to study and evaluate various sources of knowledge with respect to their potential applicability in local contexts. Communities of learners can also create new knowledge that is culturally and contextually appropriate. Students can experience a high degree of agency in determining what they learn and how they learn it. Their education can reflect the settings in which they live and intend to work. The first two pilot projects have demonstrated successes in terms of student performance and contributions to social development goals. The projects suggest some guidelines for educators interested in securing the relevance and meaningful productivity of programs in tertiary level institutions and development assistance programs within a larger postmodernist, anti-colonialist agenda. Dennis Esperanz, an indigenous educator who played a key role in implementing one of the partnership programs in Canada, commented:

> We educators have to be visionaries, but when we talk curriculum, we also have to consider the vision of people in our communities—what their goals are. The Generative Curriculum Model contains a larger vision of how to bring the two different visions together—the one that academics see and the one that guides people out there in the communities. So we've learned a new approach to making what we do here [in this institution] meaningful and effective for all parties. People are just starting to understand what this is all about.

# References

Assembly of First Nations. (1988). Charleston, G.M. (Ed.) (1988). *Tradition and education: Towards a vision of our future* (2 vols). National Review of First Nations Education. Ottawa, Canada: Assembly of First Nations.

Ball, J. (1994). Strategies for promoting active learning in large classes. *Journal of Teaching Practice, 2*, 3-11.

Ball, J., Muzlia, S., & Moselle, K. (1994). Cultural influences on help-seeking for emotional problems in Malay communities. In G. Davidson (Ed.), *Applying psychology: Lessons from Asia and Oceania* (pp. 97-112). Carlton: Australian Psychological Society Press.

Ball, J. (1998). Identity formation in Confucian-heritage societies. In P. Pedersen (Ed.), *Multiculturalism as a fourth force.* (pp. 147- 165). Philadelphia: Taylor and Francis, Bruner/Mazel.

Ball, J. (2001). *First Nations Partnership Programs—Generative Curriculum Model. Program evaluation report.* Victoria, Canada: University of Victoria.

Battiste, M., & Barman, J. (1995). *First Nations Education in Canada: The circle unfolds.* Vancouver, Canada: UBC Press.

Becker, J., & Varelas, M. (1995). Assisting construction: The role of the teacher in assisting the learner's construction of preexisting cultural knowledge. In L. Steffe and J. Gale (Eds.), *Constructivism in education* (pp. 433 – 446). Hillsdale, N.J.: Lawrence Erlbaum.

Dahlberg, G., Moss, P., & Pence, A. (1999). *Beyond quality in early childhood education and care: Postmodern perspectives.* London: Falmer Press.

Freire, P. (1993). *Pedagogy of the oppressed* (M. Bergman Ramos, Trans.). New York: Continuum.

Giroux, H. (1992). *Border crossings: Cultural workers and the politics of education.* New York: Routledge.

Ki-Zerbo, J., Kane, C.H., Archibald, J., Lizop, E., & Rahnema, M. (1997). Education as an instrument of cultural defoliation: A multi-voice report. In M. Rahnema & V. Bawtree (Eds.), *The post-development reader* (pp. 152-160). London: Zed Books.

Lather, P. (1991). *Getting smart: Feminist research and pedagogy within the post-modern.* London: Routledge.

Lockhart, A. (1982). The insider-outsider dialectic in native socio-economic development: A case study in process understanding. *Canadian Journal of Native Studies, 2*, 159-162.

Pence, A., & Ball, J. (1999). Two sides of an eagle's feathers: Co-constructing ECCD training curricula in university partnerships with Canadian First Nations communities. In H. Penn (Ed.), *Theory, policy and practice in early childhood education* (pp. 36-47). Buckingham, UK: Open University Press.

Pence, A., & McCallum, M. (1994). Developing cross-cultural partnerships: Implications for child care quality, research, and practice. In P. Moss & A. Pence (Eds.), *Valuing quality in early childhood services: New approaches to defining quality* (pp. 108-122). New York: Teachers College Press.

Robertson, D. L. (1996). Facilitating transformative learning: Attending to the dynamics of the educational helping relationship. *Adult Education Quarterly, 47*(1), 41-53.

Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context.* New York.: Oxford University Press.

Shiva, V. (1997). Western science and its destruction of local knowledge. In M. Rahnema & V. Bawtree (Eds.), *The post-development reader* (pp. 161-167). London: Zed Books.

Smith, L.T. (1999). *Decolonizing methodologies: Research and indigenous peoples.* London: Zed Books.

Steffe, L.P., & Gale, J. (1995). *Constructivism in education.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Wilson, P. (1994). The professor/student relationship: Key factors in minority student performance and achievement. *Canadian Journal of Native Studies, 14* (2), 305-317.

http://www.ecdvu.org (accessed Nov. 2001)

http://www.fnpp.org (accessed Nov. 2001)

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