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Expanding Knowledge Systems in Teacher Education: Introduction

One of the driving forces for this special issue on *Expanding Knowledge Systems in Teacher Education* has been the recognition that many existing teacher education programs operate from an unmarked norm of privilege that has a “semblance of naturalness that in itself defends it from scrutiny” (Hurtado & Stewart, 1997, p. 300). This naturalness, which evades scrutiny, continues to be used as a way to avoid recognition and inclusion of “hot” knowledge generated by women, peoples racialized as non-white, and other groups historically marginalized. Our argument is that it is necessary to set the context for a reality that teaching is a cultural exercise, embedded in at least one particular knowledge system and one particular set of values. We believe that the experiences of students in our programs should be predicated on an inquiry process that explores the idea that the Western (Canadian) knowledge system represents only one way of knowing and being. Preservice students as teachers will encounter many other knowledge systems and ways of being among their students, peers, and future teaching colleagues. During their undergraduate years, students should be taught to recognize, articulate, and integrate a basic

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respect and acknowledgment of these realities into their own views and practices as successful contemporary teachers. For us, including such an approach would constitute a global perspective as well as introduce preservice teachers and students to the whole field of education, with K-12 schooling as one aspect of a rationalist scientific paradigm that has come to define Western ways of knowing.

We would expect preservice teachers to recognize that knowledge systems develop in specific places among specific groups of people. In some cases these knowledge systems have evolved through millennia of experience and thought. Knowledge systems that are tied directly to peoples and places such as national and international Indigenous epistemologies encompass varied logic systems, philosophies, psychologies, and languages. Without a sound rationale, it is no longer acceptable that our postsecondary education ignores the existence of these other systems of knowledge.

Indigenous knowledge systems are also related to issues of sustainability. Educator Orr (1994) suggests that the ecological crisis is about how we think and thus is fundamentally a learning issue: calling us to rethink the purpose of education; the epistemological and ontological roots of Western society as only one system of knowing and being; the nature of a good society; and deeply held notions about the meaning and quality of life, particularly those in which the living systems are nested. This compels us to engage those preparing to be K-12 teachers, administrators, and adult educators in a deep and transformative inquiry process. Such a process needs to examine the historical, intellectual, cultural, and material roots of what is called Western society, as well as the power relations that keep it intact. Becoming aware of the social patterns that are imprinted on us as we grow up amid a variety of economic, political, religious, racialized, and genderized social forces is vital (Merchant, 2005). It is also vital to understand the mechanistic world view that emerged in support of industrial capitalism with its ethic of managerial domination that has spawned these ideas about the natural world as commodity, a view that in Alberta we see in evidence every day. Educators and students need to be introduced to many other world views through an inquiry process that explores, values, and respects other knowledge systems for their complexity, wisdom, and inherent ethics.

By way of possibilities, much can be gained by exploring beyond traditional pedagogy as identified by Arendt's (1997) proposal that storytelling can be viewed as an alternative to impartial, detached reasoning as a way of constructing knowledge—a different kind of critical thinking from an argument. Rather than abstraction, she would argue that we need to be attentive to considered particularity and thus move toward enlarged thoughts. We believe that shifting understandings requires more than just the addition of content and adding to what students know: as importantly we need to complicate what they know and complicate the knowledge forms that they encounter. As Pike (2008) suggests, it is time to rewrite the legend, thereby shifting from a logic of supremacy over others and over nature.

In this issue we highlight 10 articles that push the frontiers of what it might mean to expand our existing knowledge systems in teacher education programs. Our selection of articles includes the empirical as well as the normative

aspects of expanding knowledge systems. Several move outside the boundaries of a Canadian environment to offer insights and illustrate how expanding knowledge systems relates not only to local concerns, but also to wider global issues. Our aim with this collection of articles is to offer starting points from which we might be able rethink how to interrupt current knowledge systems that reinforce an unmarked form of privilege.

Several of the articles articulate strong critiques of the existing epistemological and ontological framework that undergirds our present Western knowledge system. In particular, Abdi's article draws on a postcolonial perspective to argue for recognition of the adequacy of African philosophies and epistemologies in traditional African societies and for the need to contextualize Western epistemology/philosophy itself. Required, according to the author, are "knowledge and learning multicentricities that both theoretically and pragmatically rewrite the learning trajectories of the old colonized space and the new, still alienating multicultural classrooms."

Elliott's article reinforces the overall critique presented by Abdi and extends his analysis to a specific classroom subject, arguing for making Western science and Indigenous knowledges congruent, specifically with respect to teaching science. The author provides some useful background about differing epistemological and ontological assumptions and then continues to a discussion of Indigenous research methodologies and in particular metaphoric meaning-making. Like Elliott, Asabere-Ameyaw, Dei, and Raheem discuss how local populations reach a synthesis of traditional science (as in Indigenous medicine) and Western science (as in modern medical practice) and assert that the implications of including local or Indigenous knowledge in science programs and curricula of school and communities is worthy of further academic investigation and that Indigenous knowledge is also science. Both articles recognize the key position of educators in bringing rigor and credibility to the study of Indigenous knowledge and ensuring its place in the school and in society.

In presenting an argument that Eurocentric knowledge systems need to acknowledge and allow the promotion of other ways of knowing, both Abdi and Elliott relay the prevalence of Western ideology as miseducation. Bai, Scott, and Donald's article highlights what they identify as "different traditions of contemplative philosophy and practice (Buddhism, Daoism, Raja [Ash-tawnga] Yoga)" to place at center stage questions about the limits of current educational practices. Their argument is that existing curricular and pedagogical practices need to shift out of the instrumentalist mindset that perpetuates the current epistemological, axiological, and ontological disconnect and alienation. Taking up the theme of how Indigenous knowledge in Ghana informs everyday practice and social action about national health prevention, diagnosis, and cure of ailments, Asabere-Ameyaw et al.'s goal is to explore such cultural knowledge and knowledge systems for wider educative purposes in their communities. They identify conceptual and methodological issues related to the collecting and archiving of local medicinal scientific plant knowledge, ownership of cultural knowledge, and intellectual property rights. Knowing who and what the appropriate sources are in these endeavors to acquire particular forms of Indigenous knowledge is critical. As with most of the authors in this issue, Asabere Ameyaw et al. show how the ties of Indigenous

knowledge systems to peoples and lands are visible in languages and cultures; in people's ways of being and knowing; and in their systems of rationalities, philosophies, psychologies, histories, and spiritualities. An underlying premise of their work is that community development is education and that Indigenous processes of health and education cannot be separated. They highlight local perceptions of the use of traditional plant medicine in everyday health, but move beyond traditional pharmacology to a nuanced interpretation of the meaning of health and Indigenous knowledge. The article demonstrates, albeit somewhat implicitly, that knowledge systems can be set apart in their epistemic and philosophical emphasis, as well as in how power dynamics shape their production, interrogation, validation, and dissemination, both internally and globally.

Pedagogy is paramount in enabling preservice students to complicate existing knowledge systems and realities. Storytelling emerges as an important component of a reconceptualized pedagogy across a number of the articles as an alternative to impartial detached reasoning. In the articles by Sockbeson and Iseke, we have a chance to view how metaphor and aesthetics can be applied to the analytic as both scholars draw on their wealth of Aboriginal experiences to reinterpret existing racialized situations that they have encountered. In a ground-breaking article, Sockbeson presents her thinking on how the Waponahki intellectual tradition of weaving baskets embodies a theoretical framework and foundation for understanding Waponahki policymaking and research. The educational policy examined in the article outlines some of the challenges and opportunities in the process of designing and implementing Legislative Document (LD) 291 and how this document functions in practice as an educational policy that works toward anti-racism education and decolonization. Iseke draws attention to strategies and practices of challenging misrepresentation through the use of Indigenous media in education. Her article examines the challenges in changing institutional climates of teacher education in order to encourage discussion of how Indigenous knowledge and people can be full partners in educational institutions. Continuing with an examination of Aboriginal experiences, Ragoonaden, Cherkowski, Baptiste, and Després have a timely article that relates to the importance of the language for passing on Okanagan knowledge through storytelling.

Although many of the articles are related to classroom practices, two in particular examine classroom experiences directly and offer alternative models for teacher preparation and classroom teaching. Assessment, a well-recognized cornerstone of naturalizing discourses that reinforce Western knowledge systems, is tackled in a forthright way in Fleet and Kitson's discussion of assessment in an Indigenous-specific program in Australia. In a similar vein and using literature focused primarily on an Africentric theoretical framework, Mwebi and Brigham examine the benefits derived from an overseas cultural immersion experience (Kenya) by a cohort of white female Canadian teacher education students. Their work explores potential ways to challenge Eurocentrism and open student teachers and consequently their students to diverse perspectives.

There are threads on which are hung the multicolored concepts and articulations that represent the voices that are tied to the eyes of these *seers* in

contemporary teacher education programs. Their observations pull together various elements, and a synthesis evolves in the minds of the readers as one whole that speaks to the shared experiences of educators and researchers who are Indigenous to a place and a knowledge system that has for the most part been ignored, buried, or silenced from the classrooms of primary school to the lecture halls of academies of higher knowledge. Higher knowledge, we say, but we know that this can be recognized as higher only by those who have risen beyond the level that is immediately below them. Therefore, we are led to recognize that what we refer to as *higher knowledge* can be considered higher knowledge only by those who have exceeded that level of knowledge and understanding and are, therefore, already beyond what we refer to as *higher knowledge*.

Is it any surprise, then, that Indigenous scholars hunger for the time and the words of their own traditional knowledge teachers? Their teachers speak to a knowledge that is beyond what is termed higher knowledge in the academies where they are the learners. Most of these teachers have surpassed the Western system of higher knowledge and are already engaged in thinking in the stratum of knowledge that has not yet been recognized in the academy or by most of its teachers. The knowledge at this level is the inheritance of Indigenous students; their challenge is how to work with it during their time in the academy. It is not for simple reasons that they are referred to in their own languages as the warriors of today.

Bai et al. articulate in unison with other authors the significance of relationality and interconnectedness for recognizing an ontological wholeness in learning and growth as a human sensual experience. Sensing or recognizing presence is more than an objective observation that science claims to make, but moves into a relationship that is "sacramental in confirming the unique essence of its members." This is the thread of connection, of respect, of integrity, of honoring every knowledge system represented in one's classroom, of being the teacher who lives and loves and is connected to places and persons. Bai et al. distinguish secular and nonsecular meanings through their use of specific terms. They use a secular vocabulary, *indwelling*, to describe the process of returning attention to the sensing organism, but also state that in a nonsecular context, the word *spiritual* would be used to talk about the same subject. She references Lilburn (1999) as suggesting this sense as "a growing familiarity, an increasing sense of feeling at home, a loving dwelling in or with a place, a river, stone, cityscape, and their inhabitants" (p. 37). We go into what Lingis (1994) calls "the depths of the organism and the world." This is again a significant thread that winds its way through this collection of articles on other knowledge systems in teacher education, pointing to the human need to know the self, a need that is usually ignored in contemporary schooling and educational processes. Yet when we look at ancient Indigenous knowledge systems, which are also largely ignored in contemporary education, we note that to know the self is at the heart of most of them.

A primary thread in Ragoonaden et al.'s article is storytelling, and this takes us toward a form of education that has evolved from an Indigenous knowledge system. Descriptions of story help readers to understand a form of knowledge expression based on orality that is rarely a part of a Western educational

experience. Yet when we read the words, we realize that they represent a movement of life through time, a location of life in place, and a relationship with life within life. Ragoonaden et al. elucidate an aspect of the Okanagan knowledge system and weave around it a discussion about the challenges and issues of Okanagan language education. "Stories are how we find out who we are, where we came from, and where we are going."

When we talk about knowledge systems, we recognize that each person has a reference point to a particular knowledge system. Stories, say Ragoonaden et al., are the heart of the Okanagan knowledge system. They speak with a familiar passion, one that peoples whose knowledge systems have been silenced or marginalized will recognize and hold close. "The stories are like DNA chromosomes that are constantly turning, spinning, and embedding our life-ways into our children and our children's children, coming from eons past into the present to the future." As educators, we have an important part in keeping the stories and knowledge systems alive, and we do this so that their people may also live.

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