

A Pedagogy of Place: Promoting Relational Knowledge in Environmental & Sustainability Education

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As a small 4-year direct entry teacher education program, we are interested in the possibilities of an educational program based on the principles of “place-based education” that assists teacher candidates to become better able to learn from an environmental & sustainability educational curriculum of place. Our program focuses on the application of place-based learning through field experiences, inquiry projects and integrated in-school seminars.

The design of our curriculum of place, housed within the four-year Bachelor of Education program at Mount Royal University (Calgary, Alberta, Canada) might be best characterized as a pedagogy that is responsive to local conditions and the cultural, social, economic and environmental traditions of the educational context (Cajete, 1999; Kincheloe, 2001; Wattchow & Brown, 2011). Focusing on theory and practice links, our program integrates ESE field studies and inquiry-based projects utilizing a place-based approach that puts considerable onus on ecological field studies and longitudinal environmental assessments. Through a social-constructivist lens, in-school seminars, integrated weekly within 5-week (3rd year) and 16 week (4th year) practicums, each involving cohorts of 8-12 teacher candidates from three partner schools, are facilitated by teacher educators to develop a sense of community (Lave & Wenger, 1991; Wenger, 1998) and support teacher candidates to reflect upon their teaching and develop responsive environmental & sustainability educational practices and adaptive expertise (Beck & Kosnik, 2006; Loughran, 2002).

Place-based Education

Our B.Ed. science and math program is also deeply informed by Indigenous interpretations of Place:

In a curriculum of place the activities in which we engage children are the very activities they need to dwell in this place, to be nourished by the place and to nourish it. In a curriculum of place, young people or novices grow into knowledge through engagement in hand-on activities learning side-by-side with masters of the crafts. This knowledge enables people to find their way in that place where they dwell and this knowledge and these skills endow them with identity. (Chambers, 2008, p. 120)

The delivery of our ESE teacher education programming might be best characterized as the pedagogy of place (Blood & Chambers, 2006; Gruenewald, 2003): the integration of the student into their home school (practice) and the reinforcement of the essential links between the student, their peers, and place through targeted course work (theory). Through this integrated process, teacher candidates make connections between their experiences in the schools and the theoretical course work and in doing so learn to trust the authority of these integrated sets of experiences.

As part of their science and math course work, 3rd and 4th year students take part in a wide variety of place-based activities, often in the company of scientists and educators who have been working in a related field. They take part in intensive field studies that involve science inquiry and community activities conducted in a range of settings. Most of the activities involve environmental monitoring and most are longitudinal in nature as they span over a period of years. The community issues students address during their time in the science and math program are typically characterized as place-based educational initiatives. The ability to infuse an outdoor activity with related environmental field studies benefits the whole educational enterprise (Cajete, 1994, 1999; O'Connor, 2009). The linking of environmental field studies with an outdoor pursuit gives both the study and the activity additional educational value and meaning (Kawagley & Barnhardt, 1999; Smith, 2007; Woodhouse & Knapp, 2000). In addition, field studies reinforce both labs and lectures in specific subjects, addressing a traditional education problem: integrating theory and practice [Dewey, 1938]. Courses such as geography, survey biology, quantitative chemistry, ecology and environmental studies are often integrated and lend themselves to field studies that link to a range of outdoor activities. The field studies approach often takes on the mantle of place-based education since many of the field studies are centered on responding to community concerns, studying and collecting data and proposing possible responses to the community-defined problem. Addressing 'real' topics and finding ways to apply the prescribed learning outcomes to these studies have proven to engage students in ways that secure knowledge and strengthen positive community attitudes (Sobel, 2004). In this respect, including field studies with outdoor pursuits has been proven to be a successful educational approach (Louv, 2005; O'Connor, 2010; Raffan, 2003; Woodhouse & Knapp, 2000).

The ultimate goal of these place-based pedagogies is to have the teacher candidates not only see the relevance and importance of their studies, but also reflect critically since those studies have immediate causal effect on their present pedagogical context as professional teachers and, ultimately, the well being of themselves and their students.