Working Together in the Shadow of the Mistakis: Indigenizing Science Education at the University of Calgary

Oki! Salut! Greetings! I am a Métis academic and educator originally from the place where the Bow and Elbow rivers meet and the mistakis¹ could be seen in the west on a clear day. It has been my sincere pleasure to return home this summer to join the Faculty of Education at the University of Calgary as part of an initiative to enhance Indigenous education on campus, in the community and beyond. I will be working alongside four other new Indigenous scholars in e-learning, educational psychology, literacy and leadership; the mandate of my appointment is to develop and deliver courses, conduct research, and build community partnerships in Indigenous science education and related fields.

One of the first questions that people often ask when I tell them about my new appointment is, “What is Indigenous science education?” My typical response is that there are several interpretations of this term. One interpretation of Indigenous science education is the promotion of successful theories and practices for teaching Western science to Indigenous learners. This is an important aspect of Indigenous science education, because it involves supporting Indigenous learners’ increased success in Western learning environments.

¹ The Blackfoot word mistakis denotes the western horizon line, which is traditionally used for navigation and map-making, created by the Rocky Mountains when viewed from the foothills (Binnema 2001).
Another interpretation of Indigenous science education might involve more of a paradigm shift for those steeped exclusively in Western science. This view involves considering Indigenous philosophy and knowledge of how the world works on its own terms as another form of science (Snively 2009, 34). Considering Indigenous science through this lens also allows us to consider its relationship to Western science, and this brings the two into a dynamic dialogue for the benefit of Indigenous and non-Indigenous students alike.

One way to enact this second form of Indigenous science education is in a standard classroom or laboratory setting using Western methods. However, taking this one step further involves engaging with Indigenous science through traditional Indigenous pedagogical approaches, such as learning through experience and demonstration on the land under the guidance of elders and other knowledge holders (Armstrong 1987; Simpson 2002). In my experience, the most effective contemporary educational initiatives bring together both approaches, resulting in a rich and fulfilling experience for all those involved.

In this spirit, please do not hesitate to contact me if you are interested in collaborating on a study or initiative, or would simply like to exchange ideas or resources.

References


Gregory Lowan-Trudeau

Gregory Lowan-Trudeau, PhD, is assistant professor of Indigenous science education in the Faculty of Education at the University of Calgary. He can be reached at gelowan@ucalgary.ca; his website is www.kichigami.com.