

Making Education Inclusive

From exploring traditional knowledge in Manitoba's North to sharing career possibilities with residents of Winnipeg's inner city, Dawn Sutherland is known for bringing unique perspectives together for a common goal: making education inclusive.

Named Canada Research Chair in Indigenous Science Education on July 19, 2006, Sutherland explores the relationship between culture and science education in indigenous communities, in particular in her home province of Manitoba. She wants to see the teachings of Aboriginal culture incorporated into school curricula so that science education is more meaningful, interesting, and relevant for Aboriginal students.

Profile

Dr. Dawn Sutherland is an Associate Professor in the Education Program of the University of Winnipeg. Among her research interests are the development of understandings related to building capacity and resilience among traditionally under-represented groups in science, and connections between indigenous peoples' traditional knowledge and modern science teaching/learning. Dawn holds a doctorate in science education from the University of Nottingham in England and has worked on a number of key curriculum projects undertaken by Manitoba Education, Citizenship and Youth in recent years. These include *Current Topics in the Sciences* at Grade 11, Senior Years biology, and the Kindergarten to Grade 12 Science Curriculum Steering Committee. Dawn enjoys spending joyful times with her young daughter as they explore the world hand in hand.



Currently, Canada's Aboriginal students are significantly under-represented among those who pursue studies in post-secondary mathematics, applied science, or physical science. But by teaching them science in a way that is culturally relevant, Sutherland, an education professor, believes the doors to higher education and science-based careers will swing wide open. "The idea is to make science learning relevant and interesting—to put it into a context that students are exposed to day to day," says Sutherland. For some students, this means developing creative techniques, such as

incorporating the indigenous knowledge of trappers, Elders, and Aboriginal community members who live off the land, to help students engage with the science curriculum.

In her research, Sutherland is collaborating with colleagues from around the world to develop an academic framework for teaching science that teachers can follow in their classrooms. This includes using a consensus-building strategy that will have science education scholars from indigenous settings develop a statement that reflects a global understanding of indigenous science knowledge.

Recently, Sutherland has been exploring the decision-making process curriculum developers, administrators, and teachers use when developing culturally relevant learning experiences for their student populations. Graduate student Natalie Swayze from Winnipeg and Nisichawayasihk Neyo Ohtinwak Collegiate (NNOC) principal Natalie Tays are reflecting on the process they used to develop and implement programs for Aboriginal students in their own settings. These

two individuals will then be travelling to Costa Rica to explore the curriculum development and programming decisions made in an indigenous school. The research will help educators understand the importance that a "sense of place" has on the teaching and learning of science.

For further information, contact

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