

We, Together: Integrative Science and Two-Eyed Seeing

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Change is occurring to the historical picture of science education in Canada wherein curricula and pedagogy have ignored the traditional knowledges and ways of knowing of the many and diverse indigenous peoples of Canada, the First Peoples, whose traditional territories collectively cover the country's vast landscape. Most of this change (even though often slow) is occurring at the K-6 levels, fueled by the determined efforts of indigenous educators and scholars and allies. But what about the higher grades and also the post-secondary educational (PSE) levels: could they, too, become more inclusive as to how science is viewed and taught? As one "yes" answer to this (often highly contentious) question, Dr. Bartlett's presentation will provide an overview of "Integrative Science", an initiative that originated in the 1990s as a globally unique, 4-year degree program at Cape Breton University in Sydney, NS, in the traditional territory of the Mi'kmaq Nation. Integrative Science functioned successfully for several years during which time it saw several Mi'kmaq students earn NSERC-USRA awards and also many Mi'kmaq students graduate, benefitted from the research program of a Tier 1 Canada Research Chair in Integrative Science (with SSHRC, CIHR, NSERC, and CFI funding), and received a national award of recognition from the Canadian Council on Learning. However, by 2010 Integrative Science had collapsed. Dr. Bartlett's presentation will address the questions of "why was/is an inclusive approach to science education, such as that represented by Integrative Science, of interest for PSE in Canada?" and "what challenges manifest in implementing and sustaining such?". She will additionally talk about "Two-Eyed Seeing" which was the guiding principle for Integrative Science, brought forward in the early years by Mi'kmaq Elder Albert Marshall. While Integrative Science was functioning but also subsequent to its demise and ongoing to this day, Two-Eyed Seeing was/has been grown and extensively promoted across Canada within co-learning work conducted by Elder Marshall, his wife Elder Murdena, and Dr. Bartlett. An overall result is that Two-Eyed Seeing has gained traction in many different places and projects, as well as at the national level. For example, it was formally adopted by CIHR-IAPH (Canadian Institute of Health Research – Institute of Aboriginal Peoples' Health) in 2011 for various competitive research funding programs and then embedded in IAPH's strategic plan for 2014-2018. Significantly and most recently, Two-Eyed Seeing and Integrative Science were highlighted (p. 99) in the report "Investing in Canada's Future - Strengthening the Foundations of Canadian Research" submitted to the Government of Canada by the expert panel that undertook "Canada's Fundamental Science Review 2017" (released publicly on 10 April 2017).