Community science and environmental stewardship through an Inuit-led land based program

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Overview: We describe an Inuit-led land-based program, the Young Hunters Program, which embodies community science by blending Indigenous Knowledge Systems with tools of Western science, making it locally meaningful and empowering.

AUDIENCE: Administrators (K-12), District science coordinators, Environmental educators, Informal educators, Instructional designers, K-12 science teachers, Policymakers, Researchers/Researcher supervisors, Science education leaders, Outreach specialists, Secondary science teachers, Students, STEM educators.

KEY POINTS

- Importance of rebuilding relations and decolonizing knowledge systems and science practices.
- Need to move beyond assimilative educational practices and ideologies of one size-fits all.
- Community science is about a science that matters in light of local climate change challenges.
- Inuit-led land based programs like the Young Hunters Program are key towards the revitalization of cultural practices and Inuit self-determination and Inuit ways of doing science.
- Keenly observing and carefully making connections with the environment are key skills of community science and would benefit us all.

INTRODUCTION: We explore community-driven and owned science in the context of an Inuit-led landbased program called the Young Hunters Program, situated in Nunavut, Canada. Youth participants research challenges to community wellness and become stewards of the lands by applying Indigenous knowledge systems blended with tools of Western science. Our research questions were: (1) How did community-based science open up various learning trajectories and possibilities for young people? (2) How do the frameworks and approaches for community-driven science expand or challenge basic questions around what is meaningful, worthwhile, good, and just in science teaching and learning? We draw on an ethnographic research collaborative, committed to relationship building and ongoing accountability to relations. Shared narratives were crafted jointly from rounds of data collection and analysis through in-person meetings, dialogue circles, interviews, and joint-analysis and presentations of data.

FINDINGS The Young Hunters Program and its associated Goose Project immersed youth in environmental stewardship in ways deeply grounded in Qaujimajatuqangit, what Inuit have always known to be true or Inuit ways of being. Through land trips and lessons presented by Elders, youth became keen observers of their environments and could rebuild healthy relations with the land while reporting back to the community their results and thereby contributing to community well-being. By harnessing multiple technologies, youth also developed deep thinking skills and focused on finding solutions to community wellness caused by climate change. Community driven science brought the community together, centering solutions by revitalizing Inuit knowledge systems, beliefs, and values. The Goose Project implied assessing environmental devastation from goose overpopulation given climate change, but to then also asserting food sovereignty. Through multiple and diverse forms of participation and responding to ongoing and new lived challenges, community science is supportive of lifelong learning and the doing of science that is lived, heart-driven, and applied in relevant contexts.

TAKEAWAYS

The revitalization of Indigenous Knowledge Systems (IKS) is at the heart of community science projects that are locally meaningful, empowering, and a key to self-determination. Through participation in the Young Hunters Program and the Goose Project, the youth experienced lived science and could envision themselves as stewards of their lands in the future. Yet questions remain: how do we give recognition and validity to lived science within the communities and the educational system? How do we celebrate this purposeful learning and articulate it as a meaningful learning trajectory?

Full Title: Rebuilding relations and countering erasure through community-driven and owned science: A key tool to Inuit self-determination and social transformations