

Two Years of Youth-Driven Arctic Research in Mittimatalik: What Can the Learning-by-Doing Approach Teach Us?

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Inuit youth have the potential to succeed in pursuing careers in Arctic research, but are lacking opportunities to develop their research capacity.

During the last two years (2014-16), we developed a youth-driven research project offering an opportunity to a group of five young Inuit from *Mittimatalik* (Pond Inlet), Nunavut. The project involved researching and developing skills and competencies on a pressing community priority focusing on water quality, human health and adaptation in the context of climate change. We have been encouraged by community members, especially Elders, to address this priority issue based on observations of environmental changes and many residents complaining of gastro-intestinal problems.

In order to offer meaningful and long-lasting training experience to the team of young researchers, we explored novel approaches to the concept of training; approaches that depart from traditional school-driven ones (concepts and theory first), to an approach sensitive to and consistent with Inuit experiential approaches to learning (observation and experience first). The need for hands-on, experiential learning opportunities has been stated consistently by Inuit Elders and others in Arctic communities as it is critical to *inunnguiniq*; the making of a capable person.

Project leader (Tim Anaviapik-Soucie) worked full-time, during 2014-16, running research activities that included training a research team of assistants, coordination of the field work, lab work and interactions with community leaders, elders and residents of *Mittimatalik*. The project leader and his team received guidance, training, and continuous support from a team of research mentors at ARCTIConnexion, Dalhousie University, Université du Québec à Rimouski, University of Guelph, and the Nunavut Research Institute. Research training took place in Arctic community settings and in

southern partner academic institutions. Data logs, questionnaires and video interviews were performed with team members and mentors to record the project's progress.

The project leader and local researchers have made significant progress in: 1) developing a better understanding of the backgrounds, concepts and environments associated with Arctic research; 2) reframing the position of Inuit Knowledge and Scientific knowledge in Arctic research settings; 3) developing specific skills and competencies for the running of a scientific agenda; 4) building personal skills that promote self-esteem and self-empowerment, and; 5) communicating the concepts, experiences and outputs of their research at local and national scales.

Certain elements are key to the progresses made by students: 1) community and academic support contributed to a balanced reconciliation of Indigenous knowledge and scientific knowledge; 2) mentors' day-to-day support of the trainees maintained motivation and engagement in the research; 3) an emphasis on field work (hands-on) approach enabled the trainees to learn in an experiential way, and; 4) community-based work allowed the trainees to work close to their family members and support networks.

We have made substantial progresses in building capacity in northern communities by showing that Inuit youth have the capacity to drive a research agenda. This project can serve in providing insights to research and programs interested in developing new ways to do arctic research, build capacity, and to respect Inuit education and 'informal', 'life-learning' processes and Indigenous knowledge.