

What is research?

Should I be doing research? How do I do research?

In this session of the Research CA\$H workshop we will broadly explore four big questions:

- What is research?
- Should you be doing research?
- How do you do research?

This guidance document introduces questions that researchers should ask themselves when thinking about developing a research project to ensure research is being used ethically and responsibly.

What is research?

“Research is defined as the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings.”

- Government of the Northwest Territories, Knowledge Agenda: Action Plan 2019 -2024

There are two main reasons to conduct research:

1. To find **solutions to known problems, or to help us make better decisions when facing a problem** (sometimes called applied research).

Examples:

- Is solar energy a feasible option to meet the power demands of the town of Inuvik?
- Is there an unsafe concentration of arsenic present in garden produce grown around the Giant Mine?
- What are the impacts of the Government of the Northwest Territories “Drop the Pop” campaign on youth sugar consumption?

2. To **add to our collective knowledge** about a subject, by helping to **understand the world** around us. This can include why things or processes work the way they do.

Examples:

- How do local food sharing networks in the NWT operate?
- How do plants adapt to growing in extreme cold?
- What local knowledge exists about the Northern Lights?

“More than ever we require research and knowledge to understand ourselves and our environment, to describe and solve increasingly complex problems and to improve the quality of our day-to-day lives. Knowledge is also critical to our ability to innovate and prosper.”

- Government of the Northwest Territories, Knowledge Agenda: Action Plan 2019 -2024

Should I be doing research

Before spending lots of time and resources working on a funding proposal, you need to find out if the research you want to do is **new** (has not been done before) and **needed** (a research priority for stakeholders).

It is important that the public funds dedicated to research are used responsibly and that studies do not duplicate existing research. Research that requires participation from community members should be considered carefully because people in the NWT have been over-researched. Every time researchers collect data in a community, it can contribute to research fatigue, where participants become less likely to volunteer their participation after being asked over and over.



Ask yourself:

- Has this research already been done before? What is new/innovative about my idea?

To avoid duplicating work and spending resources needlessly, do a search to find out what similar research projects have already occurred using the following links:

- Google Scholar: <https://scholar.google.ca/>
 - Aurora Research Institute NWT Research Database: <https://data.nwtresearch.com>
 - Hotii ts'eeda NWT Health Research Database: <https://nwtspor.ca/projects>
- Do other people besides me care about this? Is this important for Northwest Territories people or environment?

In the NWT, research is subject to review and approval by communities to ensure that research is addressing local priorities. This is part of an ongoing effort to reinforce local self-determination in NWT communities and give communities authority over the research that is conducted on their lands and with their people.

Designing your research project to answer or contribute to the priority areas of local organizations is a good step towards building a relationship, developing support for your research, and strengthening your research funding application.

Resources on NWT Research Priorities:

Hotii ts'eeda Research Priorities: <https://nwtspor.ca/resources/research-priorities>

GNWT Knowledge Agenda: Northern Research for Northern Priorities (2017):
https://www.ntassembly.ca/sites/assembly/files/td_406-182.pdf

NWT Water Strategy Research Priorities (2017):
https://www.nwtwaterstewardship.ca/sites/water/files/resources/wss_implementation_workshop_summary_of_research_priorities_2017-2018_1.pdf

GNWT Health and Social Services Research Priorities: <https://www.hss.gov.nt.ca/en/services/health-and-social-services-research-nwt>

Gwich'in Renewable Resources Board Research Priorities 2018 –2023: <http://www.grrb.nt.ca/research.htm>

Indigenous governments, community groups, renewable resource councils, hunters and trappers associations, and other organizations will often share their regional research priorities.

- Will I be able to do this? Do I have support to do this as part of my role at work or in the community? Do I have sufficient time and resources to accomplish my project? Do I have the expertise to manage and report on funds? Does my organization?

When you commit to conducting research with community partners or by submitting a funding proposal, you will want to be sure that you can follow through on your commitments. Research is a significant time commitment and many people outside of universities and colleges do not have the time and support to conduct research. If you can, consider asking for support to do your research as part of your job or volunteer with a local organization who can support you.

- Do I have the skills and background for this? Do I know someone who does? Do I know how to collect an environmental sample correctly? Do I have the expertise to safely get to a field site? Should I budget to hire personnel to help with fieldwork?

To be successful, you do not have to know and be able to do everything! Search within your community and networks for someone to read your proposal, someone to do data analysis, lab facilities to analyze your samples. Plan to hire local people or contractors as necessary, particularly for Indigenous language translation, traditional knowledge collection and analysis, and any other support you will need to do your research well.

How do I do research?

Research starts with **exploration and discovery**. Once you have a good research question and you have funding for your project (the goal of this workshop series!) the next phase of the research process is **testing your ideas**. This involves gathering and interpreting data.

It is important to remember that research does not always go according to plan! Often research designs must be changed, for example if local events make it impossible to collect your data or your community partner asks you to answer an additional question that you had not planned for.

Historically, research in the Northwest Territories has largely been done by southern researchers and based on southern priorities and interests. The priorities and areas of importance to NWT residents were often over-looked and underrepresented.

Community feedback can, and often does, influence a research question. It can also help shape the desired **benefits and outcomes** of a research project. By solving an everyday problem, a research project may have to ask several new questions in the process. The diagram below provides a short overview of the 'scientific method', which is critical to your research.

“In the past, research undertaken in the NWT has often been driven by the scientific curiosity of southern research institutions and the interests of southern-based academics. This has resulted in some high quality investigations, but it has also meant that many areas of importance to NWT residents were overlooked or under-represented. Research results were often inadequately reported back to the northern communities and, in general, inadequately integrated into policy development at many levels of government. Notably, traditional knowledge-based research has typically been under-represented in all areas of policy development and decision-making.”

- Government of the Northwest Territories, Knowledge Agenda: Action Plan 2019 -2024

Ask yourself:

- What else do I need to do to get my research project started?

All research taking place in the NWT requires a valid research licence; it is recommended to apply for your research license at minimum 3 months before your proposed start date.

- Does my research involve humans?

You may need to be approved by a research ethics board (REB) at a university or college.

- What other permits and approvals will I need? Land use permits? Research in a Parks Canada area? Wildlife export permit?

- Does my project require travel? Should I budget for that?

Getting around the NWT can be challenging. Investigate your needs in advance and consider the high costs of traveling in the North.

This has been a brief overview of things to consider when deciding whether your research can and should be done. The upcoming sessions will provide more detailed guidance for working through many of the question above, if you have decided that your research is *new* and *needed*.