

# Perceptions of Success: A Case Study from a Pilot Project of SAON

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contact: mhrudolf@alaska.edu

## Introduction

Co-production of knowledge projects requires integrating multiple perspectives of what constitutes the success of a project that is rooted in academic expectations, community benefits, decision-making processes, methodological paradigms, and worldviews. This case study investigates what success would look like in improving Arctic observing, as well as highlight the tensions that these perceptions can have in a project. The key outcome from this research project is to take into consideration the differences in perspectives and perceptions of success in designing efforts towards SAON ROADS that include researchers, policymakers, practitioners, Indigenous leaders, and community members.

## Food Sovereignty Working Group

The Food Sovereignty Working Group (FSWG), formally the Food Security Working Group, grew out of AOS2020 and is currently linked to the ad hoc AOS 2022 WG1. The FSWG's purpose is to support community-driven research processes, Indigenous sovereignty in policy and decision-making, and sharing of the Indigenous-led work on Indigenous food security in the Arctic. Currently, science and policy frameworks are not representative of the Indigenous relationship and responsibility to the land and waters, FSWG's goal is to facilitate change through spanning the boundaries and uplifting Indigenous governance, research, and leaders.

## RNA CoObs

Research Networking Activity (RNA) for sustained Coordinated Observations for Arctic Change (CoObs) is a pilot project for SAON ROADS that is in partnership with the Food Sovereignty Working Group (FSWG). RNA CoObs focuses regionally on the Pacific Arctic and topically on societal benefits for Indigenous food security. RNA CoObs funds three Indigenous liaisons to the FSWG, including authors Rudolf and Chythlook. Author Starkweather advises RNA CoObs and author Cody does GIS analysis in relation to RNA CoObs. To learn more about RNA CoObs, please see the AOS poster on the project by Eicken.

## Literature Review

Goal misalignment and communication challenges are common issues that are discussed within the CPK, team science, and transdisciplinary literature (Arnott and Lemos 2021; Daly and Dilling 2019; Stokols et al. 2008; Sarkki et al. 2015). Researchers are typically focused on the research, while their community partners are focused on the tangible community benefit. The funding structures also set up for a focus on research and typical research outputs, and not the time and resources needed to develop long-term relationships. The literature on Indigenous engagement (Ellam Yua et al. 2022; David-Chavez & Gavin 2018; Kalafatis et al. 2019) focuses on this goal misalignment, communication challenges, capacity issues, and tangible community benefits as an issue of equity and frame typical research practices as extractive to Indigenous communities. From convergence literature (Pennington 2016), coming to a shared understanding is an important step in any team science project. This project builds on this literature of the complexity of doing CPK with Indigenous communities, as well as works towards building a shared understanding between RNA CoObs and FSWG members. To learn more about co-production of knowledge, please see the AOS short statement authored by Rudolf.

## Research team - representative of the diverse perspectives

Margaret Anamaq Rudolf (lead) - FSWG, co-production of knowledge methodological approach  
Craig Chythlook - FSWG, community-based participatory research  
International Arctic Research Center, University of Alaska Fairbanks - Fairbanks, AK USA - Lands of the Lower Tanana Dene  
Sandy Starkweather - RNA CoObs, SAON ROADS and national coordination of AON  
Cooperative Institute for Research in Environmental Sciences, University of Colorado - Boulder, CO USA - Lands of the Arapaho, Cheyenne, and Nuu-ogha-tuvu-pu (Ute) people  
Ryan Cody - RNA CoObs, GIS Analyst  
University of Texas El Paso - El Paso, TX USA - Lands of the Lipan Apache, Mescalero Apache, Piro, Manso, Sumo, Jumano, Ysleta del Sur Pueblo, Piro/Manso/Tiwa Indian Tribe of the Pueblo of San Juan de Guadalupe, and Tartugas Pueblo.

## Homogenous focus groups with scientists in RNA CoObs and members of the Food Sovereignty Working Group on perceptions and metrics of success in improving Arctic observing

## Preliminary Results

### Themes of Success in Improving Arctic Observing

- Coordinated
- Sustained
- Used/reused
- Long-term funding
- Accessible/engaged non-scientists
- Inclusive
- Broadening participation
- Benefits society
- Partnerships
- Community engagement in the process
- Flexibility/Agility
- Monitor change
- Iterative/continued improvement
- Interoperability
- Transparency
- Development of best practices/community of practice
- Supporting next generation
- Systemic change
- Local to global scales
- Continued growth
- Support infrastructures

### Tensions in the Perceptions of Success

#### In Common

Coordinated, sustained, inclusive, trust, transparency, flexible, used/reused, long-term funding, accessible/engaged non-scientists, community engagement in the process, broadening participation, development of best practice/community of practice, supporting the next generation, monitoring change, and systemic change

#### Indigenous

Focus on the process, local scales, community-driven approach, Indigenous-led, equity in decision-making power, distribution of funds/resources, long-term partnerships, fix extractive/token practices, institutionalizing ethics and engagement standards, scientists having cultural awareness, funding for relationship building, reciprocity, respect Indigenous sovereignty, data sovereignty, capacity building in communities, science as an industry, co-production of knowledge, Indigenous methodology, boundary spanners, impacting policy and regulatory management, inclusion of Indigenous Knowledge Systems, Indigenous-led examples, and internet/connectivity issues

#### Scientist

Focus on the deliverables, coordinating and use of existing assets, local to global scales, open science, scientist-led examples, iterative/continued improvement, research to long-term monitoring, designing and requirements for the user, maximize societal benefits, interoperability, ability to predict, continued growth, and data centers

Those in coordinator roles also focus on the process, ethics, and partnerships within the scientist group.

## Methods

This project uses co-production of knowledge (CPK) in combination with the Rapid Qualitative Inquiry (RQI) approach (Beebe 2014). RQI is a team-based approach to gain insider perspectives on a topic. The four-person research team was selected to represent the perspectives of the RNA CoObs and FSWG members. The research team held eight homogenous focus groups with two to six members from either RNA CoObs or FSWG, in addition, the research team captured their own ideas in a self-facilitated focus group. The focus groups had only one question prompt: "What does success look like in improving Arctic observing?" The prompt was intentionally written in plain language to not create a barrier for Indigenous community members. Following RQI methodological approach, the open-ended prompt allowed for the groups to focus the discussion on topics relevant to them, e.g. data management, Indigenous community benefits, community-based observing networks, usable products, impacting policy, etc. RQI assumes the participants will contribute topics on what they consider most important, making it a good initial inquiry that can be expanded into a larger research project. The focus groups were transcribed and analyzed by the four-person research team using content analysis coding to develop themes. The analysis focused on two questions: 1) what are the themes of success in improving Arctic observing and 2) what are the tensions in the perceptions of success between RNA CoObs and FSWG members. During the creation of this poster, the research team is still iterating and converging on the two analysis questions. Once the initial analysis is done, the results will be presented back to the participants for feedback following the CPK approach.

## Next Steps

These themes of success will be presented back to the RNA CoObs and FSWG members for feedback. The themes along with tensions will be published as a case study of the complexity of doing CPK with Arctic Indigenous communities. The themes will be used by RNA CoObs and FSWG as they move forward in their collaboration. It is also expected to inform the SAON ROADS process. This case study is an initial look at themes of success for SAON ROADS and Arctic observing, further research is needed to create a more comprehensive understanding both within the Pacific Arctic and internationally.

## Acknowledgments

We acknowledge this poster is being presented in Sápmi and recognize the importance of the self-determination of the Sámi as an Indigenous People. The underlying purpose of our research is to support Indigenous self-determination. We continually strive to create inclusive space for Indigenous Peoples and their leadership. We would also like to acknowledge those RNA CoObs and FSWG members that contributed to this work. This material is based upon work supported by the National Science Foundation under Grant No.1936805. Any opinions, findings, and conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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# What does success look like in improving Arctic Observing?