

NNA Research Experience: A Hybrid Research Experience Program for Connecting Alaska Undergraduates with Community-Informed Research

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The Navigating the New Arctic (NNA) Research Experience for Undergraduate Students is an annual program designed to connect Alaska undergraduates with community-informed Arctic research. The program has previously been offered virtually, spanning across multiple semesters in the first year and a single semester in the second. Based on feedback from the past two years, the 2025 NNA research experience was reformatted into a short, intensive, hybrid program.

2025 Program Structure

Two-Day Virtual Workshop

- Indigenous Ways of Knowing
- Nature of Western Science

Arctic Science Summit Week

- NNA Annual Meeting
- Arctic Science Summit Week (ASSW) conference sessions
- In-person networking

Team-Building

- Small group icebreakers
- In-person group reflections
- Informal group activities

Mini Research Projects

- Rain on Snow (Project Jukebox)
- Alaska Arctic Observatory and Knowledge Hub (AAOKH)

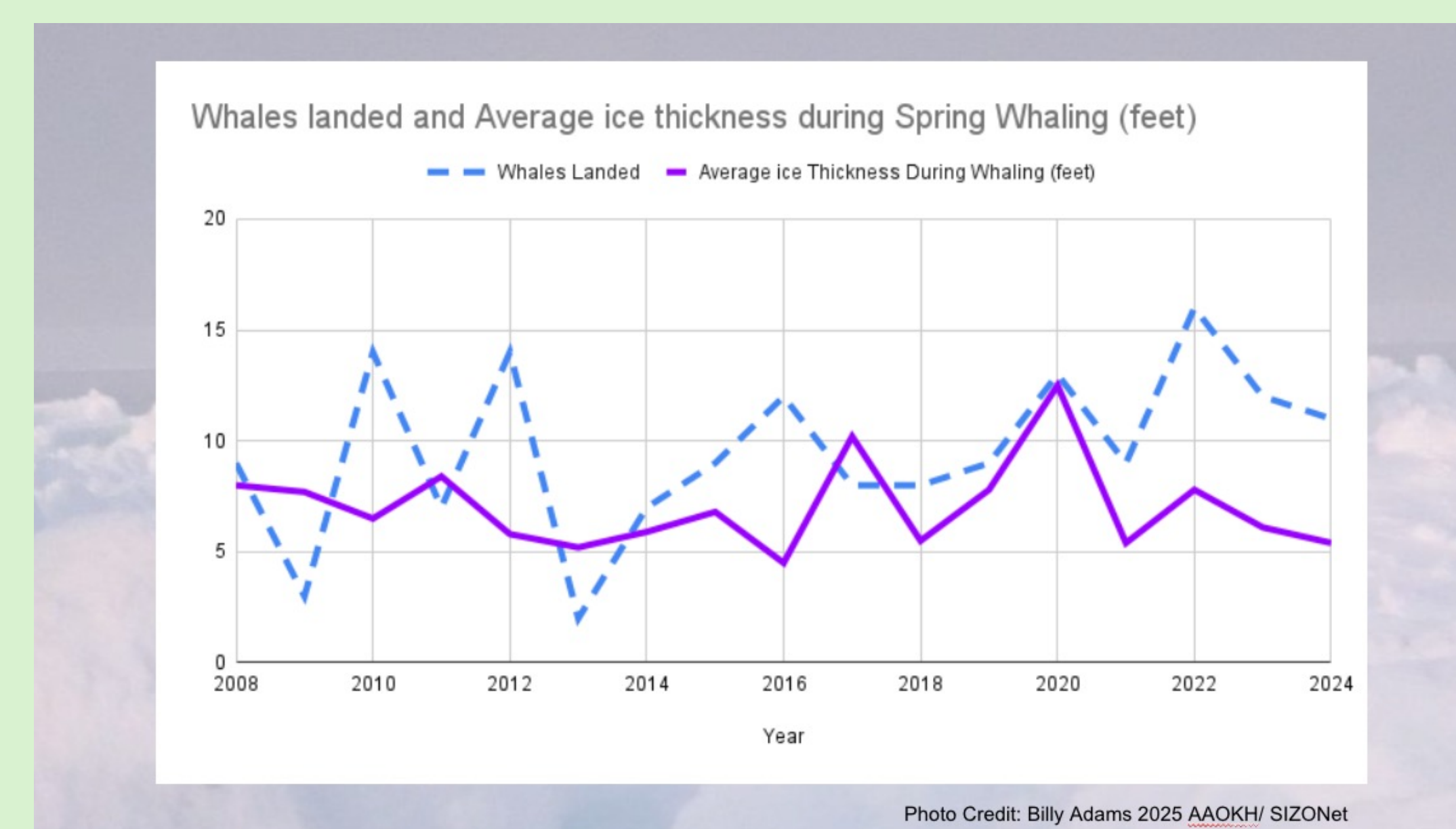
Major changes made to the program structure:

- 2023 – Three semesters, virtual
- 2024 – One semester, virtual
- 2025 – Two weeks, hybrid

Overview of Student Objectives

- Make an informed decision about whether to pursue a research career
- Analyze data collected in Arctic communities & learn how to ask questions relevant to Arctic communities
- Value Indigenous Knowledges & Western science as ways to understand the Arctic and to inform solutions to climate change
- Communicate research effectively to the NNA research community and local Arctic community
- Increase sense of belonging to the Arctic community and STEM fields

2025 Student Outcomes



Investigation of effect of sea ice thickness on spring whaling using the AAOKH database (Kristen Reece)



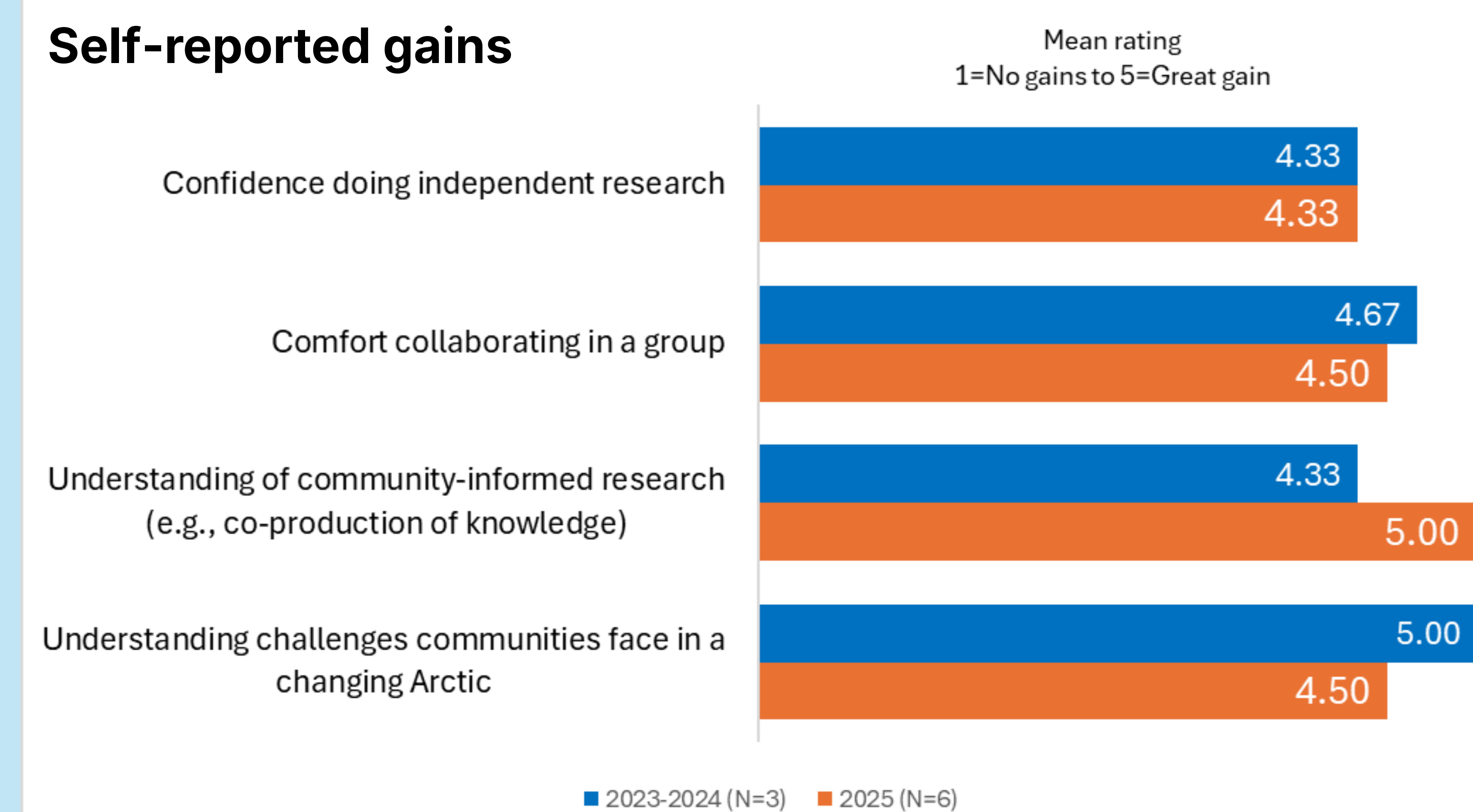
2025 cohort.
Ares McGlynn
Myrick, Noah
Valade,
Katherine
LeBlanc,
Chariety
Moler, Kristen
Reece,
Roberta Miller

"The activities and conversations I had genuinely helped me both gain important real-world skills but also gave me knowledge on what to consider regarding my future path."

"Completing a research project in three days was challenging in addition to attending the NNA meeting, ASSW Conference, social events, and coursework for my studies. However, I have learned how far I can push myself as a researcher and learned how to interpret information and data from a different perspective."

"I have learned a lot about myself and how I would like to continue my research in working with Indigenous communities. I enjoyed the NNA meeting and having the opportunity to attend the ASSW conference."

Self-reported gains



Self-reported gains related to program goals, measured via pre- and post-surveys. Both program formats show good to great gains on average in each area.

Findings & Lessons Learned

- Hybrid format improved completion rate from first two years' virtual programs (Year 1: 50%, Year 2: 62%, Year 3: 100%)
- The program positively impacted students' future academic and career plans
- Students reported being more likely to pursue a career in research after the experience
- Students appreciated the connections they made, hands-on experience, collaborative environment, and working with research mentors
- Suggestions for improving the hybrid program included interviewing applicants during the selection process, extending the research project time, and providing more support for first-time researchers

Acknowledgments:

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