

Reponse to Editor – June 2025

The current manuscript is vastly improved and has answered Reviewers' comments. Before final acceptance, please address the following to ensure clarity and consistency:

Thank you for taking time to read the manuscript and provide additional clarifications. We appreciate your quick turn-around time in this too. We have made the final changes and uploaded a new tracked version, with just the newest amendments highlighted, so that they can be seen amongst the larger changes which took place in the previous review.

- Line 18 To make clear the analytical framing (and the scope) of the study, change to: “This study evaluates the main educational activities and the best practices of the Arctic Frontiers E&O programs from the last decade, to highlight a number of possible programs which can be run in other Arctic regions.” This change replaces “outlines” with the more analytical “evaluates” and specifies the focus on Arctic Frontiers E&O programs.

Changed, thank you.

- Line 23 add a more recent reference to Gibney, 2016.

We have now included a reference in the introduction and discussion. Thank you for this suggestion.

- Line 78 space needed “challengesand best practices”

Amended.

- Table 1 is too far from referencing text, it is called well-before Fig. 2 but comes after
Moved under Figure 1.

Results: two organizational tasks remain:

1. Please move all reflective judgments and contextualizations (e.g. Line 263 starting with “Therefore, Science for Schools is successfully increasing” and all others e.g. line 277, 352-3, 409) to Discussion. Keep Results to only reporting statistics, but without interpretation or evaluation.

We have done this now, thank you.

2. Linked to this, remove all singposting to the Young Program’s aims and move these to Discussion, to relevant points in the narrative. Section 4.3 especially heavily references aims and should be formulated in neutral terms e.g. “Quotes related to career outcomes”

also note details like Table 3 caption, revise away from aims and consider “career interest” or other appropriate term. Consider moving Line 391 “The quotes from participants reveal a positive impact” to discussion or revise: “Quotes from participants included predominantly positive language”

Thank you for specific examples and rephrasing – we have now changed these.

- Lines 235-236 Consider a more results-focused phrasing such as:
“The following section presents the results in line with the three research questions outlined in Section 1.” -also note there are not four RQs.

Changed. Thank you.

- Line 239 section 4.1 should then start directly with “In its latest phase” in line with the above recommendations to avoid discussing aims here

Changed. Thank you.

- Lines 252 and 254: delete repeat calls to Figure 3 (already called on Line 248)

Removed.

- Line 349 section 4.2 should start with “Qualitative data from participants” as preceding sentences are interpretive (move to Discussion)

Changed. Thank you.

Discussion:

The current Discussion does well to take a broad, thematic perspective and this tone should be preserved. It is already organized in a way that can map well to a structure, it just lacks subheadings. This can be fixed easily and will greatly improve clarity without demanding a rewrite:

- Organize the Discussion section using thematic subheadings. Use revealing titles that reflect your key findings e.g. 4.1 Shifting Participation: Gender, Geography, and Inclusion. While these themes should ultimately respond to the three research questions, the structure does not need to follow the RQs directly. Please preserve your current narrative flow, but clarify it with meaningful subsection headings that guide the reader through your interpretive insights.
- As you move your connections with aims from Results to here, use simple signposting in parentheses (A1, A2), avoid fully restating aims. The task is not to rewrite the Discussion, rather to ensure the Discussion section meaningfully absorbs and reflects the interpretive statements being moved out of Results. Ensure that each of the four aims is ultimately linked to relevant findings.

We've taken these suggestions into account and clarified some sections, whilst including sub-titles which reflect the flow of the existing discussion.

Ethical statement: consider moving to Methods. ES are usually presented in the beginning

of the Methods section as a first step of data collection in participatory studies. Note that the ES switches between past and present tense, please harmonize.

The template for the layout of the publication was provided by the Geoscience Communication journal, so we have kept the Ethical Statement in the place they want it. The tenses have been changed though.

General comments:

- Please do a final check that all Figures, Tables and Supplementary figures and tables are called.
- Avoid repeated stating of aims and research questions beyond the introduction. Shorthand reference (RQ1, A1 etc) is sufficient.

Changes have been made. Thank you.