

Below, we respond (in black) to the comments by reviewer 2 (in blue):

## Overview

This is an interesting and valuable paper on the design and evaluation of a public engagement activity focusing on sea level rise. The manuscript is very well-written, engaging, and easy to follow. It presents a thoughtful approach to addressing the important topic of climate change, specifically in relation to sea level rise in the Netherlands. There are, however, a few areas where further clarification or expansion could enhance the overall impact of the paper, particularly around the framing of the audience, some methodological choices, and the conclusions.

We thank the reviewer for this positive assessment and agree that these comments will help us further improve the paper.

## Major Comments

1. **Clarifying the audience in the abstract.** While the abstract is well-crafted, it would benefit from more specific details about the target audience, particularly the Netherlands context. Additionally, it would be helpful to mention the recommendations from your findings and how (or whether) these could be broadly implemented elsewhere, along with any potential limitations.

We agree that this will improve the clarity of the abstract, and will amend it according to your suggestions.

2. **Section 1.1: Climate change and sea level rise.** The introduction does an effective job of setting the scene, but the rapid transitions between statistics for different countries could be more cohesively presented. Consider linking these statistics together more fluidly and clearly highlighting why the focus of this project is on the Netherlands, addressing the specific challenges faced in this region.

Thanks for your suggestion. We will add a few sentences to explain why we are referring to studies from other countries (we weren't able to find any recent studies about Dutch attitudes to sea level rise), and clarify that we use these ones from other countries as inspiration, even though the results might not be directly applicable to the Netherlands.

3. **Clarifying 'the public' in Section 1.2.** Throughout the manuscript, there is frequent reference to 'the public.' It would be more accurate to acknowledge the existence of multiple publics, as there is no homogeneous 'general public.' I recommend reworking this terminology throughout. For further context, I discuss this concept in my paper 'A spectrum of geoscience communication: from dissemination to participation' (Illingworth, 2023), but feel free to reference other relevant literature instead. The key point is to ensure you are capturing the diversity of audiences.

Fully agreed, thanks for catching this. We will update the text accordingly.

4. **Rationale for choosing a board game in Section 2.** The design process is excellent and will be very useful for others working in the field. It would strengthen this section if you explicitly explained why a board game was chosen as the public engagement format over other

possible methods. Additionally, a discussion of the strengths and limitations of this approach, as well as how they were realised in practice, would be valuable.

We thank the reviewer for this comment. In the revised version, we will better explain how we came to the decision of a board game, and the consequences of this choice.

5. **Interpreting statistical analysis in Section 4.** The statistical analysis is well-explained and contextualised, with observational data effectively supporting the analysis. However, I would have liked to see more interpretation of what these results mean, particularly in relation to the 'success' of the game and its potential implications for future development. Expanding on how useful these results were in informing your conclusions would add depth to this section.

While we also interpret the statistical results further in Section 5 (Conclusions and discussion), we agree that some interpretation in this section will also help the reader understand the results better. We will add a paragraph in Section 4 to clarify the statistical results.

6. **Audience biases.** It would be beneficial to reflect on the potential biases or limitations of the audience sampled, for example, acknowledging that participants attending an open day for prospective Bachelor students may have higher levels of science capital and interest compared to other publics. This consideration could help further contextualise your findings.

We discuss this in Section 5.3 (Limitations and future directions).

7. **Conclusions and recommendations.** While Section 5.1 on limitations is particularly strong, the conclusions could be more robust. I would recommend strengthening the final section by tying it back more explicitly to the initial research questions. Including clear, actionable recommendations for other researchers or practitioners based on your work would also be a valuable addition. These recommendations could also be incorporated into the abstract to give the reader a clearer sense of the broader applicability of your findings.

Good suggestion! We will further strengthen the conclusions by tying it back to the research objectives and offering more concrete recommendations, both in this section and in the abstract.

8. **Ethical considerations.** The ethical statement provided is excellent. However, I suggest integrating aspects of this statement into the main body of the text in Section 2, particularly a discussion of the risks and benefits identified during the ethical review process conducted by Utrecht University. This will provide a more holistic view of the study's ethical considerations.

We thank the reviewer for this positive comment and the suggestion to elaborate on the ethical assessment in Section 2, and will do so in our revised version.

## Minor Comments

1. **Subheadings in Section 1.** While Section 1 provides a very solid introduction, the number of subheadings may make it feel somewhat fragmented. Consider consolidating some of these sub-sections to provide a smoother reading experience.

We will consolidate some of the subsections in the revised version of our paper.

2. **Captions.** The captions are generally clear but could be expanded so that the figures can be interpreted independently of the main text.

We will expand the captions in our revised version of the paper.

3. **Figure 5.** The quality of Figure 5 is somewhat blurry. It might be more effective to present the information as text within the main body of the paper rather than as a figure.

Agreed. We will fix this in our revised version of the paper.

## References

Illingworth, S.: A spectrum of geoscience communication: from dissemination to participation, *Geosci. Commun.*, 6, 131–139, <https://doi.org/10.5194/gc-6-131-2023>, 2023.