

Reviewer 1:

1. The additional information added to the introduction does help to provide a clearer rationale and novel/standalone aspect to this paper. Although, the paper discusses scientific information with uncertainty in the introduction (highlighting COVID\_19) and then also includes more specific information on geoscience and natural hazard data in the introduction/discussion. Does the context matter and if so how is the information on COVID\_19 relevant and what does that mean for expertise and audience who are interpreting the data? Arguably the cohort in this sample have a degree of familiarity with interpreting data (albeit not in the context) as students in Higher Education and this may not cover the spectrum of ability represented in the introduction and discussion as the audience to the COVID\_19 and non-specialists.

In line 74 the authors discuss the “desired outcomes of the communicator and the needs and abilities of the audience” and I think this information needs to be considered in the context of the participants and the figures presented in this study.

**Response: The point being made at the beginning of the introduction is that scientific information can be presented in several ways and the nature of the representation may be more or less familiar to an audience. COVID-19 was simply used a general example of this issue. It is mentioned once in the second sentence of the introduction and then not mentioned again afterwards. There is no attempt in the paper to state that COVID-19 is relevant beyond this.**

**However, there are generalities that can be drawn from previous research in scientific communication: context clearly matters, in terms of the information being communicated, and the audience being communicated to. As the reviewer mentions, these are all points raised in the introduction and discussion. We are careful throughout to state who our participants were and, given their areas of study, the differing levels of expertise that they clearly have when dealing with the materials we employ in the research reported. So, in this sense the findings we report are context dependent. However, we are careful to highlight what conclusions can be drawn from our findings that would apply to other contexts in the discussion. The key one being that anchoring lines draw the eyes and therefore attention and act to reduce cognitive load in decision formation.**

2. There are also some points of clarification in the results and discussion

- Results
  - o For example, in line 344 and 345 in section 3.2 - the wording ("In order to examine fixation to the key over different periods of the decision-making process") could be clarified and explained especially in relation to the sub heading of 3.2 title

**Response: This has been clarified to read:**

**"In order to examine how gaze parameters on the graph key change throughout the viewing period prior to the final decision, we extracted the number of fixations made to the key and their duration."**

3. Also in 3.3 the results section starts by explaining the results of the companion paper.

**Response: This is not an explanation of the companion paper, this is reference to Mulder et al 2020, an earlier paper – Not Mulder et al (2023).**

#### 4. Discussion

o In Line 417- 418 "More economically rational responses to the ship decision were made by meteorology students (greater level of expertise) during the most difficult scenarios"- a greater explanation for this finding is required, especially as eye movements did not change. In line 444 the authors refer to meteorology students "use their expertise". What expertise are they using and can this expertise be transferable or what else needs to be communicated to non-specialised audience to help with interpretation if expertise is context specific?

**Response: Metrology students made more economically rational decision as shown by the final section of the results (3.3 Does expertise affect accuracy of decisions?): Metrology students were more accurate in their choice of ship especially so when the task is a challenging one (50% probability of risk). Given the lack of differences found in gaze responses this suggests that information extracted from the graphs as a function of expertise differs in terms of how it is used by participants to inform their final decisions. We state this conclusion and discuss it on lines 441 onwards:**

**"Responses to the ship decision (small or large) based on economic rationality supports the importance of expertise as accuracy reduces dependent on the probability of ice thickness, with those with greater expertise being more accurate during more uncertain situations. While their accuracy was as low as others for 30% probability conditions, with a little less uncertainty (50% probability of risk) accuracy improved more so than the other groups. This suggests that they were able to use their expertise to understand the forecasts to inform their decisions more effectively than the other groups. However, expertise appears to have little impact on eye movement behaviour within our study...."**

5. Also the terms companion paper and the reference is used interchangeably throughout despite the text saying from X point it would be referred to as companion paper.

**Response:**

**The way the companion paper was referred to in the paper depended on the context of the text surrounding it. However, we have amended the manuscript to remove any mention of the companion paper as a reference alone.**

Reviewer 2:

1. Please add a graphic of the eye tracker II in the paper or supplement. The provided link is not working.

**Response:**

**We have checked and the link works fine. A direct click in the word document or a copy and paste from there takes us straight to the Eyelink II description page on the SR Research website. We are not clear why it has not worked in this case. We are happy to add an image if it would help and would value advice on this from the editor and the journal regarding the desirability of this.**