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Comment on gc-2020-50

Anders Doksæter Sivle (Referee)

Referee comment on "Marine meteorological forecasts for coastal ocean users – perceptions, usability and uptake" by Christo Rautenbach and Berill Blair, Geosci. Commun. Discuss., <https://doi.org/10.5194/gc-2020-50-RC1>, 2021

Overall, I like the manuscript. For example, I think it is a good idea to use an earlier study as a starting point, and compare with those results, as well as a comparison between two different countries on two different continents. I also like connections drawn between the perceptions and cultural similarities/differences, and I think some of the discussions related to these issues are new and interesting. Further, I like the idea of having a workshop with metervices to discuss topics and questions when preparing the study/survey. I do think that such a paper fits within the scope of the journal and will be interesting to readers of Geoscience communication as well as to the wider meteorological society. However, I also have some issues that I think the authors need to sort out before the manuscript is ready for publication (major revision required). Below you will find my comments. They are numerous, but you should not be scared; I'm not negative to the manuscript, I'm just engaged in the topic and want to contribute such that it can make a higher impact.

General comments

- To me, and others unfamiliar with the methodology used in the study (I assume many from the meteorological services are), it would be good to get a better idea of the concept/method earlier in the manuscript. There are many paragraphs and sections mentioning "CCA" and "(shared) knowledge", but I don't really understand what it is before late in the results section when more concrete examples are given. Perhaps the authors could consider including an example of the result and which knowledge they are talking about already in the abstract. Now the abstract is describing the methodology, but little is said about the results or impact of the study, so including an example of a result could strengthen the abstract anyway, I think. The same can be

said about the results section, which is interesting, but is a bit technical or abstract to people not familiar with CCA. Actually, it is not really before I read section 4.2.2 I started to understand what this actually was about. Then it also connected better to the research questions, than earlier in the results section. Again, it would help the reader better understand if there were some concrete examples of knowledge types/impact factors/questions etc. early on and/or throughout the manuscript, to make it easier to read and understand.

- Related to this is another issue, I think the manuscript would become stronger if there is a better connection to the research question throughout the whole manuscript. My impression through the title, the aim section, and the research questions in 3.1, is that the study is mainly about forecast perception and factors driving uptake of information. This fits quite well with the topics discussed in the introduction. However, section 2, which I find interesting, is more about cultural dimensions, naturally the same with the methodology section (CCA) and discussion. Also, parts of the results (especially 4.2.1) are a bit technical and focus differences between groups and demographics, whereas the research questions are much more concrete about perceptions and usage - section 4.2.2 is more like what I expected to read. There might be something I miss out, or need to read more carefully, but at the moment I am wondering if the authors could consider to better connect what I believed the study was about (perceptions and uptake) and what I think part of the study is focusing (culture and differences between groups) such that it become more coherent. Maybe it needs some restructuring, or maybe it just needs to make it clearer through the title, introduction of research questions.
- There are recommendations about how to provide information, but they are quite general (easy navigation, few clicks, accurate forecasts etc.). Hence, I am not sure how useful they are to service providers developing platforms. How many clicks are few clicks? What is easy navigation, and for who? What is an (in)accurate forecast? This makes me wonder who the study is for, operational people or researchers? If the study is aimed at operational meteorological services, to improve value of metocean forecast information, perhaps the study would have a bigger impact if more concrete recommendations can be suggested (if possible, given the data the authors have), and (as explained above), more examples related to the CCA is made throughout the manuscript. I am also wondering if it is possible from Table 2 to see which one is more important to the participants (is it related to the percentages)? e.g. visual experience and number of clicks can be leading the service provider in the same direction, but it can also be a contradiction or dilemma, and which one should they then focus?

Specific comments

- This relates to the survey or the questions. When I read, some data/results come a bit surprising, because I couldn't see the questions or topics being mentioned explicitly earlier. For example, in line 442, it says that the participants were questioned about their trust of their own NMHSs. Where can I see that question? Is it part of table 2.2 (are all questions asked there), or are additional questions also asked but not shown? That should be made clear in the manuscript.
- I am a bit surprised that uncertainties related to climate change are part of the research questions. The title and introduction does not really give an impression that

climate change is a topic, and I find little about that in the results as well, I think (until the end of section 4.2.2). Still, it is part of the discussion and conclusion. I think it needs to be clearer in the introduction that this topic is part of the study, since it does not directly relate to the perceptions and uptake of forecast information, at least not to me.

- Line 98-99: A distinction between specialist users and the public is made, and I agree level of understanding can be an explainer. However, maybe it is worth mentioning that it can also be easier to agree upon communication with a specialist user group than the general public? Another point (related to this and lines 230-235, which I agree upon) is that some commercial users want/need to be efficient, they are not interested, it is just part of their work, whereas some recreational users are really interested, they don't need to be effective. Hence, a strict categorisation is difficult, in some situations a person can be an interested specialist, in others spend little time. It can depend on the task, not only the person or group. (see the first paper suggested below for more details.)
- Line 143 - would be nice if the authors could consider to give an example of language weaved into ocean-based references and symbolism.
- Line 147 - explain short who Khoisan people are?
- Research question 3.1: Studying forecasts (the content/information) or forecasting platforms? Could be worth clarifying throughout the manuscript.
- I am sure it is a sufficient number of participants according to method, but still 31 from South Africa is not much in terms of absolute numbers. I just want to ask the authors to be careful in their language so they do not generalize the findings, e.g. line 257 ("while South African users" - should be participants?).
- Figure 1G and line 280: It might be me not reading the text well enough, but is it clear whether these groups include both commercial and recreational users, or one of them (e.g. windsurfers or people having a windsurfers rental; commercial fishers, or people having fishing as a hobby etc.)?
- Lines 285-290: If possible, a map showing the areas would be useful.
- Line 465: A good explanation of what a red cross in Table 2 actually means. Perhaps something similar can be given earlier in the manuscript, to make it easier to read Table 2?
- Line 512: There are cultural differences, yes. I am speculating - perhaps you know - are there also other differences (economical) steering if people have recreational use of the coast?
- I want to suggest a few references that might be of interest to the authors:
 - Doksaeter Sivle, A., & Kolstø, S. D. (2016). Use of online weather information in everyday decision-making by laypeople and implications for communication of weather information. *Meteorological Applications*, 23(4), 650-662.
 - In Norwegian, a user survey from 2015 related to marine services (<https://www.met.no/publikasjoner/met-info/met-info-2015>, number 15/2015, Gjesdal et al.)