

Response to Reviewer 1 Comments

The manuscript is of potential interest to the readership of this journal, but there are major issues that must be addressed before the article could be published.

1/ * The literature review should be more carefully synthesised and structured. The use of sub-headings and signposting would help the reader to follow the argument being developed through the paper.

Response:

Thank you for your help in improving the quality of this manuscript. We have edited the literature review and added sub-headings. Please see the literature review.

2/ * There does not appear to be an explicit theoretical framework - this makes it difficult to explain the differences between outcomes of the research groups. Currently the manuscript appears to be somewhat descriptive and a theoretical.

Response:

Thank you for such a good suggestion. In previous studies, many studies have explored the relationship among PEL, ATO, and science achievement. However, the research on the influence of PEL and ATO on students' ocean literacy is lacking. It is difficult to have an explicit theoretical framework about the relationship among PEL and ATO on students' ocean literacy. Therefore, based on the literature review, this study constructed the theoretical model (OLCF model) and verified it. The results also confirmed that this theoretical model is supported. Authors believe that the establishment of this model can be applied to future ocean literacy research.

3/ * The results section requires far greater organisation and structuring. The analysis is too general, and the reported results are somewhat selective. This section needs to be more carefully and systematically constructed.

Response:

Thank you for bringing this to our attention. We have edited the result section and added sub-headings to make reading more clear and systematic. Please result section The data analysis in this study includes descriptive statistics as well as advanced statistical analysis such as SEM, CFA, and MGSEM. Although these data analysis methods are general, they are sufficient to achieve the research purposes of this current study.

4/ * Further, the analysis and findings must be critical and interpretive rather than just

descriptive.

Response:

Thank you for your suggestion. We have edited and added interpretation of the discussion and conclusion section. Please see the results and discussion sections.

5/ * The final discussion and conclusion should make it clear how the findings contribute to new knowledge.

Response:

Thank you for your feedback. We have edited and added interpretation of the discussion and conclusion section. Please see the red sentences on pages 9-11.

6/* The Methodology lacked suitable detail.

Response:

Thank you for bringing this to our attention. We have edited and added new interpretation of the Materials and Methodology section. Please see pages 3-5.

7/* Methodology of the central work is exposed appropriately.

Response:

Thank you for bringing this to our attention. We have added study Process and Participants section. Please see page 4, lines 157-173.

8/* Research methodology based on research goals is poor on absent.

Response:

Thank you for bringing this to our attention. We have edited and added interpretation of the Data analysis section. Please see pages 4-5, lines 180-204.

9/* More recent bibliography is necessary. Furthermore, the reference list is a little bit weak. Before I can make a final decision on the paper, please refer to more references and upload a new version. It is suggested that the author(s) can consider the following paper related to parental education students' scientific achievement to strengthen the background and conclusions of the study:

Papadakis, S., Kalogiannakis, M., & Zaranis, N. (2019). Parental involvement and attitudes towards young Greek children's mobile usage. International Journal of Child-Computer Interaction. doi: <https://doi.org/10.1016/j.ijcci.2019.100144>.

Response:

Thank you for your suggestion. We have added new references. Please see page 2, lines 80-82.

New References

Papadakis, S.; Kalogiannakis, M.; Zaranis, N. Parental involvement and attitudes towards young Greek children's mobile usage. *Int. J. Child Comput. Interact.* <https://doi.org/10.1016/j.ijcci.2019.100144> (accessed on 18 September 2019).

Fasasi, R.A. Effects of ethnoscience instruction, school location, and parental educational status on learners' attitude towards science, *Int. J. Sci. Educ.* **2017**, *39*, 548–564.

Šimunović, M.; Ercegovac, I.R.; Burušić, J. How important is it to my parents? Transmission of STEM academic values: the role of parents' values and practices and children's perceptions of parental influences, *Int. J. Sci. Educ.* **2018**, *40*, 977–995.

10/* The academic writing needs work.

Response:

Thank you for your suggestion. The revised manuscript has been edited by professional language editing company.



11/* The discussion should be more concise and the outcomes should be discussed in relation to the existing research. The language style of this section has to improve.

Response:

Thank you for your suggestion. We have edited the discussion and improved the

language style by Nova Journal Experts company. Please see the discussion section

12/* Recommendations should also be given for practice and further research.

Response:

Thank you for your suggestion. We have added some recommendations for practice and further research. Please refer the 2nd to 4th paragraphs of the discussion section.

13/* Some references within the paper body are not correct.

Response:

Thank you for your suggestion. We have corrected the references within the paper body.

14/* The paper must be correctly formatted according the journal format

Response:

Thank you for your suggestion. We have corrected the manuscript format according the journal format. Please see the new revised manuscript.

15/* Similarity check with iThenticate revealed a similarity index of 33% which is considered TOO high. A maximum of around 60 quoted words is accepted per paper. There are 8 papers with over 60 words. No previously copyrighted material can be used.

Response:

Thank you for your suggestion. We have edited the similar sentences. Please see the new revised manuscript.

16/* In preparing a revised manuscript, please also include a table of how you have responded to each of the issues listed above point by point.

Response:

We have responded to each of the issues point by point.