Organizing an Earthquake Learning Exhibition for transferring geoscience knowledge to the public: the example from Nepal

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Answer to reviewers

Reviewer #2:

This manuscript summarizes the outreach activities carried out during an "Earthquake Learning Expo" held in Nepal and analyzes the results of a survey in which participants were asked about various aspects related to seismic activity and risk. The topic is of interest as it could serve as an example for exporting this type of activity to other regions of the planet, especially those prone to large earthquakes.

The manuscript is well written and, in my opinion, complies with the editorial policy of Geoscience Communication. Therefore, I recommend its publication in this journal, although I also recommend modifying some aspects.

Thank you very much for your constructive review. We are very grateful for the careful review. We revised the manuscript according to these points, as well as a few other polishes, and provided the respective answers to each question/concern below.

My main concern is focused on a thorough review of the survey results. Given the small sample size (a few hundred), I do not believe it is relevant to analyze the percentages of responses to each question in detail. Furthermore, Section 4 is closer to a technical report than an article on scientific communication. I recommend selecting only a few questions and figures that illustrate the key points, i.e., the improvement of knowledge about earthquakes and seismic risk. The remaining material could be included as part of the Supplementary Material.

In the context of this Exhibit, we believe that a sample size of a few hundred people is representative and adequate, and we prefer to keep reporting response percentages for each question. We agree with the Reviewer to present a smaller set of key questions in the manuscript and include the remaining ones in the supplementary materials. Accordingly, we decided to remove Figures 1, 4, 9, 10, and 11 from the main text while retaining them in the supplementary section.

Furthermore, I believe the section describing the activities carried out in the different modules of the exhibition could be improved, for example, by including images showing the different devices used, as these could be of interest to those planning this type of event. Furthermore, I would appreciate reference to research resources that the authors have likely referenced, such as educational materials provided by the USGS, Raspberry Shake, or others.

Because all modules were developed in Nepal using locally available materials, the specific components may differ for users in other regions; however, the underlying principles remain the same. Presenting all the items that are used in the module makes the manuscript long, and if we use a photo of each module, it is hard to show all the items in a single picture. We have added the following sentence to the Data Availability Statement: ‘Anyone interested in

replicating these modules may contact the authors for detailed information on the materials used in each module.' We have listed all the links that inspired us to make these modules and cited all of them.

Overall, I have the impression that the manuscript gives more emphasis to the survey than to the exhibition activities, while, in my opinion, what is most relevant is precisely the exhibition itself.
We have well described the exhibition, including the modules and activities we have performed in the exhibition. We also presented results from the surveys on the impact of the exhibition. We prefer to keep both aspects in the manuscript.

Below I include some second-level observations and comments:
Introduction
The introduction, and especially the second paragraph, includes generic phrases that provide no scientific information and, in my opinion, are unnecessary.

The introduction section aims to inform the readers about the importance of earthquake preparedness in terms of the current risk level. The second paragraph reflects the importance of education in earthquake risk reduction. As the exhibition is spreading education to the public for the same reason, we decided to keep the paragraph in the introduction.

When discussing the audience attending the exhibition, I recommend including the description now in subsection 3.1, as it provides information on the number of schools, the ages of the participants, etc.

The description of the audience attending the exhibition is now mentioned in subsection 3.1. Thank you for noticing this.

Section 2
Figure 1, which shows the floor plan of the exhibit, is not really necessary.
We have moved Figure 1 from the manuscript to the supplementary material.

Figure 2: It would be easier for the reader if the photos were sorted by module number.
We have sorted the photos by module number.

Figure 3: The time interval corresponding to the spectrogram could be indicated in the top panel.
We have accepted the comment. Figure 2 is modified accordingly.

As mentioned above, I think including photos, plans, or sketches of the devices used could be interesting for the reader.
I understand that many of these devices and activities have been inspired, directly or indirectly, by educational materials available online. I think it would be appropriate to explicitly reference them.

We have listed all the links that inspired us to make these modules and cited all of them. The references we have used are mentioned as follows:
Module 2:https://www.iris.edu/hq/inclass/activities/magnitude_and_intensity (torch), https://www.iris.edu/hq/inclass/activities/pasta_quake_exploring_earthquake_magnitude (pasta quake).
Module 5:
https://www.iris.edu/hq/inclass/lesson/demonstrating_building_resonance_using_the_simplified_boss_model, the original BOSS Model is from Ireton et al., 1995
Module 6: https://www.youtube.com/watch?v=BxtiKodKq_E
Module 8: https://web.ics.purdue.edu/~braile/edumod/slinky/slinky4.pdf
Module 10: https://www.usgs.gov/faqs/what-emergency-supplies-do-i-need-earthquake
Module 11: https://www.usgs.gov/media/images/triangulation-locate-earthquake, https://www.iris.edu/app/triangulation/

As a matter of style, beginning each paragraph with "Module xx" is more appropriate in a technical report than in an article. However, I understand that it is probably the most efficient way to describe the content of each module.
We believe that the current presentation format is the most effective for describing the content of each module and guiding readers through the material.

Section 3
When using "(Q3)" for the first time, explain that it refers to "question 3" and that its exact wording can be found in the supplementary material.
Thank you, we changed Q3 to question 3 in the manuscript. We keep the consistency of this style for each question.

As mentioned above, I recommend drastically reducing the number of figures in this section, which now includes nine figures, all of which show bar charts.
We agreed to move five figures from the manuscript to the supplementary material.

Conclusions
I recommend merging the Discussion, Conclusions, and Recommendations sections into a single section, as the current Conclusions section consists of only two sentences and six lines.
Along the same lines as the previous comments, I believe ending the manuscript with a bulleted list of recommendations is more appropriate for a report than for an article in a journal like Geosciences Communication.

We agree with the reviewer on merging the three sections. The 7 bullet points are converted to text, in three parts: what concerns students and participants, what concerns teachers and future educators, and what concerns organization, politics, and policy. For each of these, we still used (i) and (ii)-format indications of items within a sentence. The text is updated accordingly.