Interactive comment on "Theatre, labs and gender: an education package to improve STEM working environment" *by* Susanne Taina Ramalho Maciel et al.

Anonymous Referee #2

General Comments Overall, I really enjoy the plot of this paper. However, there are several issues that need to be addressed. I see issues in the introduction and background of the paper, most importantly in the goals of the research presented, which changed multiple times throughout the paper. In addition, the authors discuss the impacts of intersecting identities of gender, race, and class, but ultimately the only marginalized identity that they are evaluating is gender. The paper needs to be re-written so that the goals more clearly align with the outcomes. The results presented are weak and hard to read through. What structure or format did you use to gather evaluations from participants (focus groups, paper evaluations, etc.)? This is not clear and just appears to be random observations, which unfortunately isn't sufficient to justify the claims.

Specific Comments 1. In the introduction and background – Why are these two separate sections? They cover the same information. Additionally, I do believe there is a broader source of research that is more recent that can be referred to here as well. For example, Marin-Spiotta et al. (2020) just published a paper on how hostile climates are barriers to diversifying the geosciences, or any of the recent work by Kate Clancy. Holmes also has a brand new publication on Diversity in awards (2020) in Advances in Geosciences. Also, I think it would help to reference the framework of intersectionality (Kimberle Crenshaw) in your introduction since you state you are looking at the intersection of multiple identities. 2. I would also like to see some more background shown on the impact of race and class oppressions on individuals in the introduction, if the goal of the paper is to discuss how gender, race, and class intersect as it now claims. However, at this point, I do not think the paper makes that connection. Finally, since you are using improve and theatre as your method, why is there no background given on why this is a valid method to try in the introduction? Who else has done this and what results have they achieved? 3. Goals – these goals as written are very different from one another, and at this point do not make the connection that these are a result of the theatre activity. They also change throughout the paper. Line 269-270 presents an entirely new goal that is unrelated to the goals at the beginning of the paper. 4. I do not think that the information about dropouts in Table 1 contributes much to this paper. Having the statistics showing the general demographics of the program is useful, but less so the dropout rates. 5. Please break out the scenes into sub sections. I also think they would fit well in individual tables, with columns that define the type of scene, description of the scene, issues being raised, and discussion points. 6. At this point, there is no link in this paper to section 3.3. I do not know how this is related to the theatre activity or why this is included. 7. Please separate the methodology and the results – at this time they are combined within the results section. 8. There are many grammatical and spelling errors throughout the paper that need to be addressed.

Technical Corrections Line 59: What is a "feeling of lack"? Line 64: "pointing out a particular behavior" Line 65: "communicating to someone". Also a space in between

work . Line 65-66: This last line of the paragraph doesn't make sense to me. What is the goal of this statement? Line 75: I assume you mean "while avoiding direct conflicts?" Line 82: Careers is spelled incorrectly Line 135: I don't understand what you mean by "are structural and structuring within social contexts. . ." Also, what evidence do you have to suggest that they can be given new meanings? Line 151: FUP has existed for 13 years Line 152: a city comprised of mainly low income, surrounded by rural areas (are these also low income? Unclear). Also – how does rural areas inspire Earth Science courses? Line 153: undergraduate courses (fix throughout) Line 161: unclear what "pretend" to study means here. Intend? Table 1 is missing the GEAGRO header, has GAM twice Line 168: graduation is spelled incorrectly Line 194: and is spelled incorrectly Line 194: What is an "act strand"? Line 195: strike carefully prepared Line 240: predicted is spelled incorrectly Line 252: especially, not specially – environments, not environment Lines 257-261: Unclear and run on sentences, please revise Line 265: "we used both forum and invisible theater for our project." Line 320: mansplaining, not mansplaining – also if you say it's in the feminist literature, you should cite it.