

Geosci. Commun. Discuss., author comment AC2
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Reply on RC2

Madeline S. Marshall and Melinda C. Higley

Author comment on "Multi-scale virtual field experience: sedimentology and stratigraphy of Grand Ledge, Michigan, USA" by Madeline S. Marshall and Melinda C. Higley, Geosci. Commun. Discuss., <https://doi.org/10.5194/gc-2021-10-AC2>, 2021

8/9/21

Online discussion response to Reviewer 2 comments

Thank you, Reviewer 2, for your helpful comments! We offer responses to the comments below.

General comments: The reviewer's comment regarding the need for more up/down references within the 3D models is a useful perspective, and future revisions of or additions to the 3D models will be sure to include more orientation indicators. At this locality all beds are typically flat-lying, nearly horizontal, or clearly have scoured channel bases. In future versions of the VFT we will include a geologic cross-section in the Background Geology to demonstrate the horizontal and flat-lying nature of the strata. This will give students the additional context they need to interpret orientation in the photos and 3D models. Additionally, the existing 3D models do revert to the correct up-orientation each time they load/reload.

The reviewer's question about if the VFT would become less useful after a few years of students seeing the same images raises an interesting point. We intentionally designed this VFT with flexibility to address this concern. For example, instructors can choose which outcrops to emphasize or use, and more or different thin section or outcrop photos could be incorporated. We plan to expand the VFT by adding core data and imagery and additional Michigan Basin outcrops, and this would create new experiences over time. Additionally, because much of the work is done within groups and during class or lab time, students need to actively complete each stage of the VFT. Since the VFT is designed to focus on skill development and the process of each task, there are few products that would be useful for students to pass on.

Specific comment 6: We appreciate the reviewer's suggestions for an improved title, and

will modify it to clarify that the VFT addresses sedimentology and stratigraphy: *Multi-scale virtual field experience: Sedimentology and stratigraphy of Grand Ledge, Michigan, USA*

Specific comment 9: We agree that our text should be reworded at the suggested lines. We will apply the reviewer's suggestions to reduce unnecessary words and personal pronouns and refine parallel construction.