

## Comment on gc-2021-15

Lisa D. White (Referee)

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Referee comment on "Introduction to teaching science with three-dimensional images of dinosaur footprints from Cristo Rey, New Mexico" by Valeria V. Martinez and Laura F. Serpa, Geosci. Commun. Discuss., <https://doi.org/10.5194/gc-2021-15-RC1>, 2021

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**General comments:** The quality of the manuscript is high and ideal for the selected journal. It is written at a level appropriate for the planned audience, presented in an organized and logical fashion, and contributes a significant and new body of work and ideas to teaching and learning with virtual materials. The methods and approaches used to develop high resolution 3D images shared and incorporated in learning materials for use in formal and informal instruction are well-documented by the authors and are informative.

**Specific comments:** The creation of 3D digital models and associated virtual resources designed to capture paleontological field observations provide ample opportunities to enhance geoscience instruction. While challenges in data collection and processing are outlined and described, the demand for educational materials that can be delivered via remote instruction is increasing as appropriately cited by the authors. Examining and evaluating the role of these technologically-enhanced applications in geoscience education are among the important driving questions guiding the work by the authors.

### Technical comments and editorial suggestions to the manuscript are as follows:

- Line 27: curriculums should be curricula
- Line 33: I recommend changing Indeed to Furthermore
- Line 42: It's somewhat unclear what 'they' refers to in this sentence. I recommend changing 'they' to 'these methods of delivery.' Also on this line change 'relevance' to 'relevant.'
- Line 48: I recommend splitting the opening sentence of this paragraph into two. Place a period after Kappus et al., 2011). Start the next sentence with Weathering (omit because).
- Line 197: 'often' is used twice in the opening sentence. Considered changing it to 'typically' or 'frequently' or other appropriate adverb.
- Line 202: 'Geoscience' does not need to be capitalized in this sentence.
- Line 203: I recommend breaking the sentence in two. Place a period after 'freshman.'

Start the new sentence with 'Departments try....'

- Line 207: 'Physics' and 'Chemistry' need not be capitalized.
- Line 209: Recommend changing 'bugs' to 'insects.'
- In lines 233 and 234: By *real science* do you mean rigorous science, applied science, pure science?
- Line 236: I recommend changing 'processes and associations' to 'the nature and process of science and its applications.'
- **Final comment is to be consistent when abbreviating three dimensional. Authors use both 3-D and 3D.**