

## Comment on gc-2021-2

Anonymous Referee #1

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Referee comment on "Development and implementation of virtual field teaching resources: two karst geomorphology modules and three virtual capstone pathways" by Rachel Bosch, Geosci. Commun. Discuss., <https://doi.org/10.5194/gc-2021-2-RC1>, 2021

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In the submitted manuscript, "From Field to Phone: A Karst Camp Chronicle" by Rachel Bosch, the author presents two virtual activities focused on karst hydrology and topography developed in response to the covid-19 pandemic. The author also presents a workflow of sorts through other available virtual lessons and projects as a framework for a virtual capstone course, a requirement for some undergraduates to graduate which were disrupted during the pandemic. The submission primarily documents the two activities, which seem interesting and well designed, but is not really a manuscript in a traditional sense. From perusing a few other published articles in Geoscience Communication, this submission seems a bit out of place, i.e., most are presented in a traditional format. I have a few general comments that I hope might help the author in a revision or reconsideration of the material in this article.

1) As mentioned above, this is mostly a narrative describing the activities in terms of motivation and some aspects of administering the activities. While useful, this for people interested in using these activities, and potentially for others interested in developing similar activities, this is not really tied to any pedagogical literature or clear geoscience education questions. What I mean is that this is a narrative of the author developing these resources, but there is no discussion of why the lessons were designed the way they were with respect to published work on effective teaching strategies, etc. Similarly, there is no review of prior work on virtual field experiences or discussion of how the presented material related to prior efforts.

2) Following from that, there is no assessment of these lessons themselves, i.e., were they effective? The author has clearly committed the (significant) time to develop and polish a series of lessons/projects suitable for sharing with the broader community, but the next hurdle that raises the bar for publication beyond sharing these materials through sources like NAGT etc, is studying the lessons themselves and evaluating their effectiveness. There are certainly challenges in collecting this data in a rigorous manner, but for something like this to be publishable as a manuscript, this should be attempted.

3) The two karst projects and the capstone project framework are two distinct things that don't really make sense together in the same manuscript, other in the context of them both being developed or conceptualized during the pandemic. The framework for the capstone project is interesting and potentially valuable, but needs to be expanded and similar to the discussions above, it needs to be considered in the context of existing geoscience education literature (e.g., capstone projects in general, virtual capstone projects or capstone projects which incorporate a virtual component, etc) and there should be some evaluation of how it worked.