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Discussions

Interactive comment on "A Flexible, Open and Interactive Digital Platform to Support Online and Blended Experiential Learning Environments: Thinglink and thin sections" *by* Adam J. Jeffery et al.

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Dear Edward, The authors are extremely grateful for your considered thoughts and suggestions on our manuscript. We were particularly pleased to hear that this form of resource would have been helpful for you during your undergraduate education, as this is a commonly-occurring opinion expressed in the feedback. Below, we provide individual responses to each of the points you have raised. Please see the revised manuscript file.

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Discussion paper

1) Introduction Are there any more references that you add into the first paragraph to back up your claims of the use of thin section petrography? I feel there should be particular references to back up the SEM (L.35) and optical microscopy (L.37) comparison.

Three references have been added and this section has been slightly reworded to provide clarification. The section now reads: “Of these, the latter is dependent upon expensive, specialist facilities, which introduce some limitations on its potential for teaching due to purchase and running costs, as well as availability of instrumentation for individual learning, requiring resource management and learning resource creation to mitigate accessibility restrictions and remove barriers to success (e.g. Shin, 2003; Childers & Jones, 2015). By contrast, optical microscopy requires comparatively cheap facilities (polarising light microscopes), and it is common for individual learners in large group classes to be able to undertake independent study with their own microscope (e.g. Penn et al., 2007).”

2) Section 3.2 – Collection of Feedback Could you clarify the age group of the students? Are these A-Level, Undergrad, Postgrad students or a mix?

This section has been altered to provide clarification on the nature of the participants, and now reads as follows: “The prototype learning resource was disseminated to the potential users via a link provided in an e-mail invitation. The provided link gave potential users (including undergraduate and postgraduate students enrolled on Geoscience-based degree programmes, as well as university academic staff members) direct access to the learning resource via personal computer, laptop, or tablet, without any requirement for payment, licence, or registration.”

3) Section 3.2 – Collection of Feedback Is there any possibility to get some more feedback from students? Even though this is a resource that has been designed primarily for the use of students, a majority of the feedback you gained was from staff members. While I understand staff gave more in depth comments, would it not be more important to gain feedback from the main target audience of the resource? I feel this would also

make for more valid statistical comparisons between the student and staff feedback made throughout Section 4.

We acknowledge and accept your concerns regarding the distribution of the data. In this case, this study is intended to act as a preliminary indication of potential demand and a proof-of-concept, based on a simple prototype resource. We feel that it has been successful in this regard, and we now intend to develop and disseminate a significantly expanded resource which will provide greatly enhanced interactivity and content. Our intention is to gather more rigorous feedback from a much larger cohort, potentially expanding to external institutions with this new resource, the creation of which has been justified by this study.

4) Section 5.4 – Continued Development Potential for a database input? In regard to the student's feedback in Section 4.6 requesting additional samples, and from experience, university modules that utilise thin sections have students looking at a vast number of samples, have you put any thought into how you might achieve the ambitious goal of creating so many samples? Would there be a way to develop the resource to allow other institutes to contribute their own thin sections, or collaborate with the Open University's VMESP?

Our intention is to develop this resource to greatly expand the number of samples available, ensuring that the resource is applicable to all areas of geoscience, including igneous, metamorphic, and sedimentary petrology, as well as potentially including micropalaeontology. To this end, we have already created a significant number of high-resolution thin section scans which will be integrated into the resource. At the moment, this is based entirely on the resources that the authors have available to them, but we are entirely open to collaboration between universities and colleges to develop a resource which could be made available to as many users as possible, if useful to them.

Once again, we would like to express our gratitude for your constructive comments.

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