

Covering page

Project Title: **Assessing The 'Open Field Lab': Evaluating Interactive Fieldcasts for Enhancing Access to Fieldwork**

Keywords: fieldwork, remote access, increasing confidence, decision-making

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Executive Summary

We developed fieldcasts, unique live broadcasts in which a student-led field investigation is carried out by tutors based in the field for the module S206/SXF206 Environmental Science. Key to the fieldcasts was a decision-making framework which, in conjunction with the Stadium Live platform, delivers authentic fieldwork that aimed to build student confidence and sense of belonging in field investigations. We used immediate and delayed student feedback to assess their efficacy.

Aims and scope of your project

We sought to evaluate the fieldcast approach in the context of the core tuition activity it seeks to support, namely tutor-organised trips and residential field trips. We aim to understand how fieldcasts can be used to support, enhance and widen access to authentic fieldwork experiences. We hope to use the knowledge we generate to improve our practice of live fieldcasting and better understand how this tool can be deployed in other contexts within the OU and beyond. Specifically, we sought to examine the affective aspects of the fieldcast as a means for engaging students in decision making, reducing students' anxiety about fieldwork and enhancing their sense of community.



Figure 1: Action shot of the fieldcasts being broadcast, with presenters, camera operators, and chat box monitor shown (left) and screenshot of the Stadium live platform students use to view the fieldcasts with the livestream, widgets and chat box shown (right).

Activities

We planned to use immediate feedback from students (e.g. chat box content), SEAM (end of module) survey responses, a multi-part survey and semi-structured interviews to evaluate effectiveness of the fieldcasts. We were interested in building confidence in students doing fieldwork, particularly in understanding the steps involved in developing a field investigation and the decisions made at each step.

We proposed to gather student and tutor experiences and reflections from participation in both tutor-organised field trips and live fieldcasts in order to build up an understanding of the potential value of fieldcasts in the context of more traditional modes of delivery. We had intended to carry out a preliminary questionnaire survey prior to the activities and evaluate responses to semi-structured questionnaires and unstructured interviews after the fieldcasts and tutor-organised trips. We had sought to conduct both a quantitative and qualitative analysis of responses in order to understand how students and tutors engage with both types of activity, their perceptions of each and their ideas on their use.

The surveys were written, and ethics approval obtained, but delivery to students at the correct times during the module proved impossible to carry out. In part this was because the module was reorganised and shortened, with the fieldcasts becoming an assessable part of the module, and conducted in February rather than May, which meant very small windows of survey opportunity. With the incorporation of the fieldcasts into the module assessment,

they were no longer comparable/alternative to the associate lecturer (AL) field days, hence we shifted focus to student perspectives of the fieldcasts only (not including ALs).

We collected analytics from the fieldcasts, immediate feedback, SEAM data, and interview responses. We initially planned to evaluate feedback from a single cohort, but were able to use four years of data, strengthening confidence in findings. We used a transcription service organised by eSTEEem to produce the transcripts for us from the interviews.

Findings

Amongst interesting findings were high levels of engagement in voting widgets.

We have presented various perspectives on the fieldcasts at multiple Open University (eSTEEem annual conference, KMi Presentation for LDI / STEM Enabling Innovation to Improve the Student Experience Workshop) and external conferences (Enhancing Fieldwork Learning Showcases). We have prepared a manuscript about the fieldcasts and will circulate the manuscript to the module team and support staff following publication.

Impact

a) Student experience

While the fundamental design of the fieldcasts hasn't changed, we have continuously incorporated small changes, in response to feedback and technological advancements, to increase understanding of the process of conducting field investigations and increase students' sense of belonging.

b) Teaching

We have presented our work on the fieldcasts at eSTEEem conferences in 2017, 2018 and 2019. Our innovations caught the attention of the Executive Dean (Braithwaite). We have presented the fieldcasts from various perspectives at various conferences external to the OU. Due to the Covid-19 pandemic and the pivoting of content online, and the particular difficulties in doing this, the fieldcasts have attracted significant interest. Learning about the fieldcasts over the last few years likely helped the Field Studies Council (FSC) design online field presentations in response to the pandemic, for example (see <https://encounteredu.com/live-lessons/fsc-fieldworklive-2020>).

c) Strategic change and learning design

A significant change was to incorporate the fieldcasts into one of the module assignments rather than it being an optional activity. Previously the Stadium Live widgets have been used to check student understanding; we used it to enable student-led learning.

d) Any other impact

Presenting at the Enhancing Fieldwork Learning Showcase introduced Julia to fieldwork teachers at other universities in the UK and as a result she was asked to be an inaugural member of the British Ecological Society (BES) Teaching and Learning Special Interest Group, which in turn led her to successful application to be part of the BES Education and Careers Committee. In 2020 Julia, Trevor and Sarah were part of the organising committee for the 10th Enhancing Fieldwork Learning Showcase, originally planned to be held at The Open University but Covid-19 meant it was pivoted online, with Trevor's experience with the eSTEEem conference very helpful in doing this.

List of deliverables

Blog post

Wheeler, P., J. Cooke and K. Maseyk. (2018) Flipping fieldwork, at a distance. British Ecological Society Teaching and Learning Special Interest Group website [\[link\]](#).

eSTEEem video

We recorded a video with the eSTEEeM group about this project [\[link\]](#).

Presentations

Cooke, J., P Wheeler, K Maseyk, S Davies and T Collins. (2019) Live field broadcasts: How flexible and robust is our technology and teaching design to multiple changes? The 8th eSTEEeM Conference, Milton Keynes, UK.

Cooke, J., K Maseyk, P Wheeler, T Collins, S Davies. (2018) Widening access to fieldwork for large numbers of students with interactive livecasts. Enhancing Fieldwork Learning Showcase. Leeds, UK.

Collins, T., J Cooke, P Wheeler, K Maseyk and J Robson (2018). Live field broadcasts: Moving from optional additions to required assessment. The 7th eSTEEeM Conference, Milton Keynes, UK.

Maseyk, K, J. Cooke, Wheeler, and T. Collins (2017). Interactive livecasts to enable distance teaching of fieldwork. Presentation for LDI / STEM Enabling Innovation to Improve the Student Experience Workshop. The Open University, Milton Keynes, UK.

Robson, J., Cooke, J., Wheeler, P., Maseyk, K. and Collins, T. (2017). Evaluating remote access to fieldwork with interactive fieldcasts for distance learning students. The 6th eSTEEeM Annual Conference, The Open University, Milton Keynes, UK.

Cooke, J. P. Wheeler, K. Maseyk, T. Collins. (2016) Widening access to fieldwork with interactive livecasts. Enhancing Fieldwork Learning Showcase. Reading, UK.

Posters

Cooke, J. Kadmiel Maseyk, Sarah Davies, Trevor Collins, Kate Bradshaw, Ben Hawkrige, Chris Valentine and Gwyneth Morgan. Fieldcasts: Online introduction to fieldwork. The 10th Enhancing Fieldwork Learning Showcase (EFL). [online]. 2020

Hawkrige, B., T Collins, V Brown, C Valentine, K Quick and J Linne (2019) Stadium Live—Interactive web broadcasts. KMi Festival. Open University, Milton Keynes, UK.

Manuscripts

A description of the fieldcasts and evaluation of student responses has been prepared:

Cooke, J., K Bradshaw, T Collins, S Davies, K Maseyk, J Robson and P Wheeler (submitted) Student-led field investigations through live interactive web broadcasts.

Other

Photographs of the fieldcasts are popular visual displays of innovative teaching at the Open University and have been featured in an OpenSTEM brochure, the [EEES website](#), and a student prospectus.

Figures and tables

Figure 1: Action shot of the fieldcasts being broadcasts, with presenters, camera operators, and chat box monitor shown (left) and screenshot of the Stadium live platform students use to view the fieldcasts with livestream, widgets and chat box shown (right). See above.

Other relevant figures and tables are in the submitted manuscript.

References

A literature review and references are in the manuscript.

University approval processes

- Ethical review – An ethical review was obtained according to the Open University's code of practice and procedures before embarking on this project. Reference number HREC/2017/2527/Cooke/1

- We registered our project with the University's Data Protection Coordinator. The anonymised data was stored on secure file shares that were accessible only by the project researchers.