

# Case Study

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## Virtual Field Trips 2018

### Key Points

- The project enabled students to experience hazardous locations in safety.
- It enabled students to experience more distant locations.
- It reduced the impact on the environment by avoiding the transport of significant numbers of students.
- It provided the students with an opportunity to experience virtual reality technology.

### Who?

The program involved undergraduate students studying on Environmental Health programme at Cardiff Metropolitan University.

### Why?

Field trips pose a range of logistical problems. Finding points in the academic timetable to take large groups of students out of the university for half-day periods is problematic. The carbon emissions from transporting significant numbers of students and the introduction of health and safety issues from marshalling large groups around hazardous environments were not seen to be in keeping with the ethos of a degree programme in a subject area that was about reducing environmental impact and levels of harmful occurrences in workplaces.

### How?

In order to improve the provision of practical training opportunities and reduce the burdens associated with running multiple large group field trips teaching staff sought a technological solution using 360 film and still images. Teaching staff visited a range of workplaces and requested tours with a 360 degree camera (Ricoh Theta V 4k) to capture footage of the premises.

Access to workplaces was simplified by only having teaching staff visiting and more hazardous locations could be visited, which would not have been accessible to groups of students. Teaching staff were able to enter houses which would not have been accessible to students. Footage could also be gathered from locations that were significant distances from campus, further reducing the carbon footprint of the programme from longer distance excursions.

Once gathered, the 360 degree footage was edited by staff and either presented as a video or as still photos that could be navigated through using screen prompts. Footage and images were accessed by students individually or in groups, using laptops/tablets or mobile phones. Headsets could also be used by students, which mobile phones were inserted into and then footage was viewed using the Google Cardboard application. This places the viewer 'inside' the 360 degree image. Using the compass and clinometer inside the phone and lenses in the headset the image displayed on the phone screen moves as the viewer moves their head, providing an immersive virtual reality experience.

### Outcomes

Student feedback from the intervention has been very positive. A wider range of premises are provided for risk assessment practice and the programme delivery has become more environmentally sensitive.

