The SDG Accord

The University and College Sector's Collective Response to the Global Goals

Using immersive technology to support student learning

HARTPURY UNIVERSITY AND COLLEGE

SDG focus

☒ Goal 4 - Quality education
☒ Goal 10 - Reduced inequalities
☒ Goal 15 - Life on land

What did you do?

Virtual Field Trips (VFTs) were used to widen participation, improve the quality of education, and combat areas of inclusion and diversity in the field of practical ecology, whilst enhancing student experience.

Traditional lectures can be recorded to support post-session learning; however, most practical sessions are not recorded and rely on student participation at a set time and date. This project aimed to increase accessibility in teaching 'Principles of Ecology', which involves 10 fieldwork sessions on campus, covering various ecological sampling techniques.

We developed a series of three VFTs and delivered the invertebrate VTF for use within the 2024-5 year. The VTFs consisted of a 360° video of the habitat where sampling took place, together with an introductory video, a hotspots interactive video, with further videos and resources highlighting the sampling methods, equipment used, and the data collected. Feedback was gathered on the use and integration of the VFT via questionnaires.

What were the benefits and outcomes?

1. 95% of students have positive opinions about the resource, with 19 responses saying it was useful and 6 saying they would like to see more (could select more than one option). Only one student thought that it was not useful.
2. 67% (8/12) of students who identified as having a disability chose to do the invertebrate write-up that also had the virtual field trip resource to support it.
3. Student feedback of those who did the invertebrate practical as part of their assignment: It reminded me of the areas that we worked on as well as reminding me of smaller details that I forgot about; it helped me remember our methods and so I was more accurately able to explain this in my assignment

What barriers or challenges did you encounter in embedding sustainability into your learning and teaching practice and how did you overcome them?

1. Time developing the resource – we were able to develop one for use during the 2024-25 academic year, the other two will be available for the 2025-6 academic year.
2. Getting students to respond to the questionnaire – time within taught sessions improved response rates.
3. The resource used to develop the VTF is licensed, so we have encouraged more uptake among other staff to increase the cost-benefit by presenting results at our teaching and learning conference.

What are your conclusions and recommendations for others?

Virtual field trips are a useful resource to enthuse and engage students in using immersive technology to embed practical field-based learning. This resource is not designed to replace field trips and attendance at these practical sessions is part of the assessment criteria. We believe this resource acts as a method to support students to reflect on field-based teaching, especially those with disabilities, much like lecture capture. If used appropriately, this can support students to make a stronger connection between field-based learning and classroom-based theoretical learning. It is useful for students to revisit material that would not usually be available, and using immersive technology also encourages student engagement, boosting the student experience.