Enhancing Fieldwork Learning Showcase

Wednesday 8th and Thursday 9th September 2021

Abstracts Booklet

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Enhancing Fieldwork Learning - Online Showcase Programme

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	Combining digital methods and real experiences in field trips – an example for a smartphone-based coastal protection tour	Mirjam Glessmer (University of Bergen, Norway), Janina Dreeßen, Katja Kuhwald
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	Geography Fieldwork in Secure Environments	Sonja Rewhorn (The Open University)
	Six simple steps towards making GEES fieldwork more accessible and inclusive	Anya Lawrence (The University of Birmingham), Dr Natasha Dowey
	Taking students into the field using VR: from outcrop diversity access to fieldwork training and supporting	Sophie Viseur (CEREGE - Aix-Marseille University, France), François Civet, Juliette Lamarche, Lucilla Benedetti, Magali Rizza, Jean Borgomano, Jules Fleury, Philippe Léonide, Olivier Groussin, Laurent Jorda
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	Enhanced training and learning in field archaeology using a low-cost DIY digital recording approach?	Edouard Masson-MacLean (University of Aberdeen), James O'Driscoll, Cathy MacIver and Gordon Noble
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3.15	**CLOSE**	

Keep the conversation going on Twitter!

#fieldwork4all

@fieldwork_ntf

Day 1

Keynote 1 – Has the pandemic made our fieldwork more accessible and inclusive?

Alison Stokes (University of Plymouth / Diversity in Geoscience 'DiG' UK)

Theme: Inclusivity

Abstract

The arrival of the Covid-19 pandemic in early 2020 instigated a fundamental change in the delivery of undergraduate fieldwork. Most significantly, opportunities for students to participate in overseas residential fieldwork disappeared almost overnight, and field practitioners were faced with the challenge of designing and delivering alternative activities that would allow learning outcomes to be met (and, in some subject areas, accreditation criteria fulfilled). Restrictions to movement coupled with strict social distancing requirements, interspersed with periods of complete lockdown, resulted in a shift towards local, non-residential fieldwork, and online virtual field activities. As a consequence, many of the known barriers to fieldwork participation faced by students were reduced or removed, and positive impacts are recognised across a range of 'types' of access. However, these changes to fieldwork delivery have also resulted in some significant losses in terms of learning opportunities, while potentially introducing further inequalities and barriers to inclusion. A further issue is that fieldwork as an activity simply does not lend itself well to a 'blended' delivery approach. However, evidence emerging from an online field education initiative in the US provides promising indications that virtual and remote field activities can generate positive learning outcomes for students, and are gaining recognition and acceptance among practitioners as credible alternatives to 'traditional' field activity.

While it's arguably too early to call whether the pandemic made our fieldwork more accessible and inclusive, it has created an opportunity to make permanent changes to the way in which we design and deliver fieldwork. The challenge that we, as a community of practitioners, now face is how we make the future path for fieldwork truly inclusive.

Wild Goosechase: Using online scavenger hunts for self-directed urban design education

James Berghan (University of Otago, New Zealand)

Theme: Inclusivity

Keywords: Urban design, scavenger hunt, goosechase

Abstract

In March 2020, New Zealander's were directed to shelter in place to manage the spread of COVID-19. This first and most restrictive lockdown lasted for approximately seven weeks and required residents to work and study from home (excepting 'essential workers' such as hospital staff and border workers). Residents could typically only leave their homes to access supermarkets or for short walks around their neighbourhood.

Tertiary teaching moved online during the lockdown period, necessitating changes to fieldwork and group-based activities. For SURV303 (an introductory course in urban design), class-based neighbourhood tours were replaced with a self-directed scavenger hunt using the GooseChase app, to be used during short walks around the neighbourhood as permitted by the government.

The scavenger hunt contained a variety of photo, video or text-based tasks (called missions). Each mission prompted students to identify urban design features in their own neighbourhoods and was assigned a point value between 100 and 1000, depending on its complexity. Students were tasked with earning 10,000 points (equating to 10% of their course grade), from a library of 18,000 available points. This provided redundancy for students to select tasks suited to their abilities, interests, and living situations at the time.

While the lockdown removed the ability to conduct in-person fieldwork, it provided the opportunity to develop a safe and inclusive teaching tool. Students could work at their own pace, self-determine their own grade, and submit tasks using different media. At least anecdotally, GooseChase has functioned as well (if not better) than conventional fieldwork tours.

Combining digital methods and real experiences in field trips – an example for a smartphone-based coastal protection tour

Mirjam Glessmer (University of Bergen), Janina Dreeßen, Katja Kuhwald

Themes: Inclusivity, remote teaching in times of covid-19

Keywords: mobile app, independent tour, smartphone, coasts, geography

Abstract

Field-based learning is essential to understanding dynamic processes in nature. Nevertheless, field trips make up only a small part of geography courses at school and university. During the Covid-19 pandemic, social distancing restrictions additionally complicated and impeded geography field trips. However, teachers implemented innovative and digital formats as alternatives. Smartphone-based, guided tours allow students and pupils to conduct “local” field trips independently, in small groups or as individuals.

In northern Germany, geography lessons deal with coastal protection during grade level 10/11 (15-17 years of age). Experiencing coastal protection in the field significantly helps to understand how measures work and shape the coastline. We implemented a smartphone-based field trip along a sandy coastal section at the Baltic Sea in Schleswig-Holstein/Germany. Using the mobile application Actionbound, participants independently walk a pre-defined route. At certain GPS points, the tour provides information, or asks participants to complete a survey or conduct a small in-field experiment. Finally, participants are able to explain how the present measures protect and form the coast. Our target group are 15-17 year-old pupils, but the method can be transferred to different grade levels and university teaching.

Exploring the use of 'ThingLink' in delivering online virtual fieldtrips

Annie Ockelford (University of Brighton) and Zarah Pattison

Themes: Inclusivity, Diversity

Keywords: thinglink, virtual fieldtrip

URLs

- https://www.thinglink.com

Abstract

Fieldwork features prominently in national subject benchmark statements for geography, earth and environmental sciences. Field learning tends to involve a problem-centred approach often with more open-ended questions, which fosters greater motivation in the students and encourages acceptance of uncertainty and context-dependent outcomes. The current Covid-19 pandemic has meant a move to online teaching, even for field work learning. Academics have had to offer virtual fieldtrips as alternatives to in person field teaching.

Whilst premade fieldtrips are available for purchase, they can be expensive, with some having limited applicability for the region of interest for individual modules, thereby not meeting students learning outcome requirements. Therefore, during the pandemic there has been a need for individual academics to develop their own virtual fieldtrips which are tailored to the specific needs of their students.

Thinglink is a free education technology platform which allows users to undertake virtual walk throughs and 360 immersive experiences. Thinglink is fully Microsoft compliant and has options to link to external resources, embedded audio, video and still photographs. In this talk, we will introduce you to Thinglink and its use for creating custom fieldtrips. We will also reflect on examples, from two universities, of how we have used it for two different undergraduate virtual fieldtrips. One fieldtrip was focused on teaching students how to sample a variety of habitats, including sampling design and assessing typical sampling errors with the second fieldtrip focused on fluvial geomorphology and activities related to developing sampling strategies and analysing cross sectional hydraulics.

Future-proofing geography teaching for uncertain times: Co-production approaches during the COVID-19 pandemic

Theresa Mercer (University of Lincoln), Kythreotis, A.P. Harwood, J., Robinson, Z.P., George, S.M., Sands, D., Kelly, H., Brown, J.M. and Sims, T.

Themes: Inclusivity

Keywords: remote learning, co-production, COVID-19, research, teaching, virtual fieldtrips

Abstract

This paper examines the application and theoretical efficacy of new geography pedagogic practices in relation to remote learning. As a result of the COVID-19 pandemic, which catalysed a mass movement of university teaching switching to online remote learning with students, we report how the co-production of knowledge between students and lecturers through existing research projects can still occur through remote learning. Two interdisciplinary case studies which encompassed elements of physical and human geography are addressed. The first case study relates to a second-year biogeography module which involved a virtual fieldtrip in which students analysed real data and produced digital maps online. The second case study relates to a third-year environmental management module in which students remotely produced pro-environmental educational tools for teaching secondary stage school pupils. This paper contributes to the pedagogic literature on digital online learning as a form of co-productive research between lecturer and students, showing how students were still able to demonstrate their geographical knowledge in a very applied and real-world context despite the move to remote learning. The co-production of research knowledge in these applied contexts was also able to continue and demonstrates that the applied perspectives of geographical knowledge can still be delivered through remote learning. Therefore, we argue that in terms of remote learning, there is value in the design of educational activities as well as the execution of the actual educational activity itself. We conclude by discussing how our findings will have significant ramifications for the way in which applied and critical geography is delivered in higher education settings in the post-COVID-19 era.

Conducting field work with children

Georgia Silvera Seamans (Local Nature Lab / Washington Square Park Eco Projects, USA)

Themes: Inclusivity, Diversity

Keywords: urban nature, outdoor learning, environmental education

URLs

- https://www.wspecoprojects.org

Abstract

Field work is perceived as happening in the realm of adults but children can conduct field work. Environmental education programs are a perfect vehicle to introduce observation skills and various types of record keeping.

Washington Square Park Eco Projects offers Explore Birds, a mobile bird education program, in public spaces throughout New York City. The main component of the program is a hands-on exhibit of urban bird specimens. We facilitate bird watching in two ways, wherever we pop-up. One approach is to offer binoculars and provide field guides. Another approach is to do bird walks in adjacent greenspaces. With the latter approach, we use a visual aid such as a white board to list the species that participants spot. Species data are uploaded to eBird to generate checklists for sites throughout the city. Children contribute to ecological knowledge about their communities and to big-data "citizen science."

Explore Bird has an art/biological illustration station. The bird-centric art activities are structured with an introduction to bird morphology. The drawings made by children are a form of natural history record keeping about birds in the collection. We have also experimented with bird collages using bird specimens, birds in-situ, and imaginary birds.

We have also used "scavenger hunts" for plant bio-facts to introduce the diversity of plant species in parks.

This presentation will introduce Explore Birds, and environmental education program in general, as a pathway for children to learn basic field methods.

Demonstration 1 – Immersive fieldwork learning through self-directed exploration of virtual landscape spheres

Tristram Irvine-Fynn (Aberystwyth University), Naomi Holmes, Jonathan Bridge, Hywel Griffiths and Rob Storrar

Themes: Inclusivity, Diversity, Accessibility

Keywords: geography fieldwork, accessibility, virtual tours, embedded learning

Abstract

University geography education faced immense challenges during the 2020-2021 academic year, through campus closures and restrictions to lecture, practical or fieldwork practice. Teaching adapted quickly and flexibly to new, increasingly digital, online methods. Yet, as a backdrop to these experiences lay the long-standing contradictions between the QAA's subject benchmark statement regarding fieldwork's "essential" role, the perceived learning benefits and engagement effected by 'natural settings', and the barriers that traditional fieldwork activities pose for accessibility and inclusivity. Today's climate crisis amplifies these pedagogical conflicts, adding pressure to reduce the carbon footprint of geography fieldwork activities. Consequently, Covid-19 has brought the provision of high-quality, feasible fieldwork equivalents as a priority for geography education practitioners into sharp focus. At university-level, 'virtual reality' (VR) fieldtrips (e.g. VRGlaciers) had been developed previously, and online platforms including Google's VR Tour Creator have evolved to offer accessible frameworks supporting education. Such digital resources complement and enhance in-class activities, and address geography fieldwork's enduring equality, diversity and inclusivity issues. Demand remains, however, for accessible and varied immersive learning resources. Here, we demonstrate 'virtual tours' of three UK upland environments, using the RoundMe platform, as an example of a 3-dimensional teaching tool. Utilising 360° image spheres, here captured using GoPro Max cameras, RoundMe presents opportunities to embed learning activities including lecture vignettes, datasets or 2-dimensional imagery. Such functionality on cloud-based virtual tour platforms offers opportunities not only to tackle inclusivity and accessibility in geography fieldwork, but to augment in-class or practical laboratory exercises, and enhance student learning journeys.

EDI and fieldwork in the E3 Subject Benchmark Statement

Debbie Bartlett (University of Greenwich), The Subject Benchmark Statement Advisory Group

Themes: Inclusivity, Diversity, Employability

Keywords: Diversity, sustainability, employability, fieldwork

Abstract

The QAA Subject Benchmark Statement for the Earth Sciences, Environmental Sciences and Environmental Studies is currently being revised, with particular focus on embedding Diversity, Sustainability and Employability principles in the statement. Fieldwork is fundamental to what is known as the 'E3' subject group and we would like to present the draft revision to the conference and invite comments from those attending. The timing is opportune as by September we will have a final draft, and hope to complete the process of incorporating comments over the autumn with view to publication in early 2022.

Day 2

Keynote 2 – Seen and unseen barriers to geoscience fieldwork

Chris Jackson (University of Manchester)

Themes: Diversity

Abstract

Think of a geologist. Odds are, the image that popped into your head is someone outside, holding a hammer, looking at a rock. Geological patterns exposed on the surface of the Earth are fundamental to understanding the processes that formed and shape our world. The deep relationship between geoscience and fieldwork is reflected in degree program requirements, with many courses mandating a minimum number of days in the field. Fieldtrips often take place in remote and exotic locations; thus, they are a major attraction to many geoscience students. Regardless of where they occur, fieldtrips represent an excellent method for practicing core geological skills, including those relevant to industry. Nevertheless, for too many students, fieldwork represents a barrier to studying geoscience at university. These barriers are especially felt by disabled students, those from racial and ethnic minorities, and those identifying as part of the LGBTQ+ community, all of whom are critically underrepresented in the discipline. It is, therefore, imperative to consider the place of fieldwork in a typical geoscience degree and ask how it can be made more inclusive. This is the focus of this talk.

Project RENU (Research Expedition for Net Zero and Universal Learning)

Emma Askew (Durham University) and Chris Stokes

Themes: Inclusivity, Diversity, Climate Action

Keywords: Virtual Fieldtrips, Digital Learning, Climate Action, Accessibility, Inclusivity, Intersectionality

URLs

- https://www.earthminutes.co.uk

Abstract

Field-trips should be physically and financially accessible to all students, and Universities must lead by example to provide all students with the sufficient tools to learn about the environment in a fundamentally sustainable way (i.e. low-carbon impact). With this, 'Project RENU' (Research Expedition for Net Zero and Universal Learning) trials the implementation of a digital field-trip experience for the second-year module, 'Glaciers and Glaciation', within the Geography (BSc) degree at Durham University in partnership with Earth Minutes (an environmental communications company). The key objective is to build a webpage resource over a one-year period (September 2020-2021), which uses engaging communication techniques (ie. short films, 360-video/sound and animation) and follows sustainable digital practices in association with Albert (BAFTA). To analyse the impact on student learning and accessibility, a voluntary group of up to 70 students will be assessed through an in-built online teaching assessment and an interview survey method. Indeed, carbon emission savings will be estimated and projected for the Geography Department and the wider University to assess carbon footprint impact. Importantly, this project will partner with the external organisations of 'Teach the Future' and the 'Black Geographers', to examine the impact of implementing this learning technique across the wider education curriculum and to assess the opportunity to develop resources that are inherently inclusive. Overall, a full evaluation report will be published (January 2022) to summarise the success in terms of the learning objectives, accessibility and inclusion, cost, and climate action in comparison to a traditional field trip.

Geography Fieldwork in Secure Environments

Sonja Rewhorn (The Open University)

Themes: Inclusivity, Employability

Abstract

During 2020 and 2021 fieldwork for many has moved online into the virtual space. For those studying through distance education, the shift has been occurring for several years. The challenges and opportunities of online fieldwork for inclusivity are known and are being further explored as we reflect on virtual fieldwork during the Covid-19 pandemic. Ensuring fieldwork skills for all includes students who are in prison or other secure environments. Reasonable adaptations have and continue to be made for inclusive learning for those students who are in prison or other secure environments. These students do not have access to the internet, the full institution intranet and at times during the Covid-19 pandemic to prison education facilities. The Open University is open to all and has been teaching students in secure environments for over 40 years preparing bespoke curriculum and approaches to ensure students in secure environments can still undertake the fieldwork elements of their Geography modules. This short presentation will share examples of adapting the curriculum for students in secure environments and discuss the opportunities and challenges of such approaches.

Six simple steps towards making GEES fieldwork more accessible and inclusive

Anya Lawrence (The University of Birmingham) and Natasha Dowey

Themes: Inclusivity, Diversity

Keywords: Fieldwork, equality, diversity, inclusivity, accessibility

URLs

- https://doi.org/10.31223/X5VG81

Abstract

Fieldwork is an essential aspect of Geography, Earthand Environmental Science programme curriculums, and a defining aspect of most geoscience-related degrees. At its best, fieldwork offers students valuable opportunities to develop independent research skills in real-world situations, examine analogues for a range of geoscientific concepts, and socialise with peers. It offers experiences that are challenging to replicate using virtual/remote learning. However, at its worst, traditional fieldwork practice and culture can present barriers to access and hostile environments that epitomise the broader equality, diversity and inclusivity problems faced by the geosciences. With the role of fieldwork increasingly being called into question, here we promote simple adaptations that can make fieldwork more accessible and enjoyable for all.

Taking students into the field using VR: from outcrop diversity access to fieldwork training and supporting

Sophie Viseur (CEREGE - Aix-Marseille University, France), François Civet, Juliette Lamarche, Lucilla Benedetti, Magali Rizza, Jean Borgomano, Jules Fleury, Philippe Léonide, Olivier Groussin, Laurent Jorda

Themes: Inclusivity, Diversity

Keywords: VR, field trips, training, supporting, disability

Abstract

Geology belongs to observation sciences. Fieldworks then represent an essential learning for students. It allows them to learn to observe, collect spatial data, etc. However, only few field trips are proposed to students during their syllabus. Many fieldworks are located close to the student campus for budget and logistic reasons, then often covering similar geological rock types. Moreover, highly educational outcrops may be located in dangerous places (road sides, combat zones, etc.), inaccessible (cliffs, caves) or simply far away from the student campus, hence too expensive.

Virtual Reality (VR) is the unique way to access full 3D views while keeping in mind the assessment of the 1:1 scale. The VirtuaField project consists in providing a multi-user VR software allowing students to train field practice on a variety of outcrops, in addition to real field trip. Within VirtuaField, the students can follow a field trip under the professor guiding or can work alone on the field. They have access to several tools for measuring or interpreting outcrops and a QCM module allows them to evaluate their ability on the field, in complete autonomy. VirtuaField allows handicapped or temporarily disabled students to have access to field trips.

However, the VR applications significantly involves human vision and brain, which may lead to health troubles. The VirtuaField application has been then tested on students and professors to have feedbacks. An interesting point is that most of the students can follow a training course during more than one hour without troubles, except neck stiffness.

Demonstration 2 – Landscape & Ecosystem Management: A Virtual Field Course at the Ol Pejeta Conservancy, Kenya

Yuan Pan (University of Reading)

Themes: Inclusivity, Diversity, Employability

Keywords: virtual fieldcourse, Kenya, conservation, landscape management, ecosystem management

URLs

- https://arcg.is/1zCHi80

Abstract

Using ArcGIS Story Maps, I created a three-day virtual field-course in landscape and ecosystem management for second- and third-year undergraduate students. I delivered the field-course using Microsoft Teams. We virtually explored the Ol Pejeta Conservancy in Kenya, a 364 km2 former cattle ranch situated in Laikipia county. It forms part of a critical wildlife corridor at the foot of Mount Kenya. The conservancy covers its running costs by generating its revenue through agriculture and eco-tourism. It uses integrated land management to balance the demands between biodiversity conservation and food production for humans. During the field-course, I used a mixture of lectures, videos, break-out rooms, Google street view, interactive workshops, whiteboards, and polls. This engaged the students more effectively and reduced the fatigue of online teaching. Furthermore, external speakers from the Ol Pejeta conservancy and from an international non-governmental organization interacted with the students. These included students acting out a stakeholder engagement workshop, as well as question time for the external speakers. The external speakers provided students with more insight into landscape and ecosystem management on the ground. On the final day, the students worked in groups and virtually presented a poster back to the class. To make the virtual field-course resemble a physical field-course, we also hosted a virtual pub quiz to allow the students to catch up with their course mates.

Demonstration 3 – Thinglink to integrate virtual practicals, data and immersive environments for HE student learning and teaching

Jamie Pringle (Keele University), Hobson, L., Stimpson, I.G., Grossey, T., Jeffery, A.J. and Rogers, S.L.

Themes: Inclusivity, Diversity, Employability

Keywords: virtual practicals, near-surface geophysics, commercial, flexible, accessible, Thinglink

Abstract

With the need for remote online learning practicals for university students and a near-surface geophysics training course for postgraduates and early career researchers, it was necessary to develop accessible, flexible and engaging resources. This presentation will highlight a resource used to meet ILOs, both showcasing and how to generate it.

Previously, employability skills focussed training, developed with geophysics industry partners, has required physical attendance of courses, causing significant costs for participants accommodation, which is a diversity and inclusivity barrier. Running virtual courses decreases attendee costs and significantly widens course participation compared to previous years.

Each week a technique dataset was acquired, either on campus or by commercial colleagues elsewhere, with accompanying explanatory videos recorded by a stationary 4k video camera with wide-angle lens, the blue toothed microphone providing direct audio input into the video. A second tripod-mounted camera was used for close-up shots.

Videos were edited using Adobe Premiere Pro with static images and text added. The Thinglink app was used to combine activities into a navigable, asynchronous resource, with a summary Powerpoint slide providing the framework for additional links. The Thinglink resource was made available as a web-link to easily embed on websites and Microsoft Teams, to provide field resources for the working up of datasets and accompanying worksheets. Module and course feedback highly rated provided resources as well as suggesting improvements.

These resource types will assist future programme delivery, providing complementary learning to physical practicals, allowing those who can't attend, or work asynchronously or flexibly, to meet ILOs.

Keynote 3 – Maximising the employability benefits of fieldwork for diverse graduate careers

Emma Peasland (University of Leeds)

Themes: Employability

Keywords: fieldwork employability and transferrable skills

Abstract

The opportunity for students to develop employability-enhancing transferable skills alongside subject-specific knowledge and technical skills is a frequently reported benefit of fieldwork. Transferable skills in particular prepare all students for employment regardless of whether they seek or gain a career related to their discipline or otherwise. However, the extent to which transferable skills development opportunities are intentionally integrated into field-based learning is unclear. Furthermore, whether employers recognise that fieldwork can develop transferable skills and whether they consider examples from fieldwork participation to provide valid evidence of skills acquisition is unknown. Using data collected from three important stakeholder groups: students, teaching staff and employers, I will discuss the characteristics of field courses that facilitate transferable skills development, and suggest approaches that can be used to design and deliver fieldwork that can maximise students' skills development and recognition. As such, participating in fieldwork can help to prepare all graduates for future employment.

The Last Glaciers of the Lake District; Synthesising Topography, Lateral Features and Moraine Morphology using Garmin 360 videos, Google Earth, MyMaps and QGIS

Adrian Dye (University of York), Lauren Rawlins, Mike Beckwith, David Rippin and Rob Bryant

Themes: Employability

Abstract

Mapping the limits of palaeoglaciers in the UK is an abstract concept and one that is highly challenging for students to visualise how seemingly 'random bumps in a field' can give useful insights into past glacier style and extent. The research problem has to be approached carefully and so students were coached in how to think about; a. the big picture (where would ice sit in the existing topography), b. laterally (what processes occurred on slopes around the glacier), and c. directly (what can moraine morphology tell us about glacier style/extents). We demonstrate how the inclusion of remote sensing through Google Earth and MyMaps allows easily accessible technique of identifying topography, landforms and most importantly their extent in the Eastern Lake District; through a series of videos (some with 360 view) and images that are pinned to each landform for students to view. Furthermore, students worked collaboratively to annotate their group's GoogleMyMaps project, whilst discussing the landforms in Zoom breakout rooms. Thus, facilitating teamwork and problem-solving skills to be developed in a virtual field trip setting, which were further developed in the final stage of collaboratively mapping landforms in QGIS. This virtual fieldtrip project formed the basis for an individual student assignment discussing whether the last glaciers of the Eastern Lake District were of plateau icefields or corrie style glaciers. The resources are intended to be used in the future to support real field trips and enhance student engagement in thinking about the research problem prior to fieldwork, in order to maximise student employability skillset development (thinking and teamwork) and time efficiency in the field. The resources and approach also provide opportunities for greater inclusivity in the future.

Enhanced training and learning in field archaeology using a low-cost DIY digital recording approach?

Edouard Masson-MacLean (University of Aberdeen), James O'Driscoll, Cathy MacIver and Gordon Noble

Themes: Inclusivity, Employability, Training and learning

Keywords: Digital recording, Archaeology, Excavation, Training, DIY and low-cost approaches

Abstract

This presentation discusses the issues of access to digital recording in field archaeology and explores how the adoption of digital recording can create a better learning environment. Digital recording on archaeological excavations has seen major developments in the last two decades and the increase use of mobile devices, drones and photogrammetry can provide significant benefits to the excavation and interpretative process. However, digital recording can still be seen as part of the realm of tech savvy archaeologists, well-funded projects or larger commercial units who can develop their own recording systems or deploy a pre-existing application. The latter are often expensive and can be technologically challenging to implement and few of these focus on both context recording and feature drawing. In response, this presentation will highlight an accessible low-cost DIY digital workflow, developed by the Comparative Kingship Project (Scotland), parts of which can be easily incorporated into other projects, allowing field practitioners to benefit from some of the key advantages of 'going digital' without the associated costs or complexities of some of the other systems. One of the major benefits of using this approach has been a better learning and teaching environment. By removing the tedious and menial but necessary tasks of the excavation process, this low-cost digital approach freed more staff and student time which was re-allocated for training. Students are taught both conventional excavation methods and techniques, with an emphasis on interpretation and reflective engagement with the stratigraphy, but also new valuable digital skills which are increasingly in demand.

Enhancing and evaluating virtual fieldwork

Kat Salter (University of Birmingham), Lesley Batty, Joseph Berry, Andrea Frank, Liz Hamilton and James Wheeler

Themes: Inclusivity, Diversity

Keywords: virtual fieldwork, digital tools

Abstract

The spread of Covid-19 has necessitated the adaptation of many teaching practices as we moved towards online learning. For students studying practical subjects at the University of Birmingham including Geography, Geology, Environmental and Earth Sciences, and Urban Planning this required alternatives to in-person field trips and site visits to be developed. In order to support the students' learning, a number of different types of virtual site and field work experiences were created at both Masters and Undergraduate Level providing a unique opportunity for comparative analysis for virtual and in-person field trips.

Many of these allow students to 'walk' round field locations and interact with the virtual environment through exploration and data analysis for learning purposes. Educational interactions, in the form of data, text, audio, images and video provide further opportunities for engagement.

In order to evaluate the student experience, and inform future practice and development of the tools, students from across all areas of study, took part in a questionnaire survey and focus group discussions. This enabled identification of the aspects of the virtual fieldwork students found useful for their learning; barriers to engagement; overall learner experience, attitude and behaviour; and how they see virtual field trips working alongside in person trips. This enabled a broader assessment of the wider benefits in terms of improved inclusivity and accessibility.

The outcomes of this study will allow educators to inform and steer their online delivery of fieldcourses to maximise the potential for learning.

Assessing for Employability – supporting a better alignment of practical skills and assessment methods for 21st century graduates

Anna McGregor (University of Glasgow), Toni Dwyer, Tie Caribe de Rocha

Themes: Inclusivity, Employability

Keywords: Embedding employability, reflective practice, assessment methods, active learning

URLs

- https://edshare.gla.ac.uk/413/

Abstract

Despite considerable institutional interest in supporting active learning and the development of employability skills, assessment methods still remain largely based on traditional methods that mostly closely support academic careers. Laboratory reports model peer-reviewed publications, while poster and oral presentations match closely with conference presentations. Even in disciplines that are firmly dependent on effective fieldwork skills, assessment methods rarely include capturing and evaluating those skills in an active format. Furthermore, these methods can also be exclusive for individuals with visual impairments or learning difficulties, such as dyslexia and dyspraxia, because they are largely based on text-based or static visual content. Students entering the 21st century workplace are being asked for a much wider skill set, particularly including developing digital content and interacting via social media, and higher education could easily incorporate such transferable skills into their courses, most effectively through their assessment methods. In this work, I present an interactive web-based tool called 'Assessing for Employability' that I have authored to help both students and staff to reflect on the skills developed by different assessment methods and the potential career paths for which those skills would be useful. This tool also aims to help staff embed these employability skills into the curriculum, thereby modernising their assessment practice, broadening its accessibility outside of text-based visual methods and enhancing student employability.