**Context**

The research methods for this project were reviewed by, and received a favourable opinion from, the Open University Human Research Ethics Committee (reference number 3842), and the Open University’s Student Research Project Panel (reference number 2021/1752).

This project addressed three research questions:

1. To what extent can an alternative fieldtrip be a shared experience?

2. What is the role of fieldwork in building learning communities?

3. What is the role of different technologies in shaping analogues of traditional fieldwork?

To explore the research questions from the perspective of lecturers, students and other stakeholders, we conducted three strands of research:

1. evaluation of two fieldwork experiences selected to represent different learning community experiences:

i. an environmental science ‘fieldcast’, as experienced in a dispersed community of OU students:

a. observation of the fieldcast

b. online survey of randomly-selected student participants

c. semi-structured interviews with staff involved in the fieldcasts

ii. observation of a Fieldwork Live course run by the Field Studies Council as experienced by a home-based participant

2. semi-structured interviews with eight stakeholders

3. a literature review relating to fieldwork and analogous fieldwork experiences

This file contains the transcribed data from interviews with stakeholders including teachers, academics and leaders of wildlife protection organisations.

The consent forms and information sheets for participants included the information that de-identified data would be archived in an online repository. Participants were allowed to opt out of this if they wished.

**VFRWC Stakeholder 1 interview** (recordings S1A & S1B combined)

Int: Welcome S1, just to tell you I’m [name], we are going to do some contact research with the Open University. If you could just introduce yourself and then I’ll start the questions if that’s ok S1?

S1: Hello. I’m S1, I work on <OU course>, its where I’m teaching, and I’ve just started in February to work for the Open University. I have been teaching at a few other places and I’m … currently working at <institution> as well where I’m teaching in the design course, both very different but also very similar.

Int: Excellent... Welcome. It’s very informal S1 so any time you want to stop or whatever I’ll just kick off the interview now and give an introduction on what we’re talking about – so basically from your perspective what purpose does fieldwork learning serve?

S1: Learning what? Sorry I didn’t hear…

Int: From your perspective what purpose does fieldwork learning serve?

S1: Fieldwork learning – what does that – can you give me an example?

Int: When you take students out to say a woodland to study bird life or ecology or if you are taking children to a sort of pond or a beach – or if you are taking your colleagues to look at new some archaeology or something, what purpose does the actual experience of fieldwork…

S1: Ah ok... I think it’s really – for me the main purpose as a tutor passing that on to my students to engage with fieldwork I think that is really something that is really important as they actually engage in activity, like a community or in a public realm, and collecting experiences of working outside of the academic bubble and away from the screen, which is a very limited area of research in my opinion, so it completely changes the way that you collect your information and data... And also its not only prompt for today but it prompts the entire project in a completely different way as you gain a better understanding for the public – that will be my first impression...

Int: Excellent... That’s lovely, thanks very much... It’s very rich so thank you S1...

Focus on the better understanding … what would you mean by that, a better understanding from the community while I go through the experience or ?

S1: A better understanding for the community – I think that’s about, it’s about – it very much depends on the subject obviously but I think that at that moment when you have live experiment of fieldwork in public it changes your experience of designing that you are not just like – not just designing but producing a kind of work just for yourself – even if its research based, and you have a better understanding of who you are working for, who you are supposed to respond to...

Int: Excellent... And how do you think … if the experience works for the learning community – the students or the participants?

S1: I suppose that it depends on how they designed their fieldwork... But I think yeah, and how’s that going to engage with the community – so it’s a question of about how our community is won for example...

Int: Yeah, but based on – I’m just trying to drill down a bit more and you said you get a better understanding, do you think the students get a better understanding?

S1: I think they do, yeah, definitely... You fail a lot easier in public or even if you do your graphic research or fieldwork there are different challenges that you might not have when you are just working online...

Int: Yeah...

S1: So it completely changes the way that you design your research tasks and methodologies...

Int: Excellent... that’s fabulous... So from a stakeholder organisation perspective now, if you think of the organisation that you’re working for, from the perspective of your organisation what purpose does fieldwork learning serve? So think of the organisation’s perspective now – why would organisations do fieldwork?

S1: So for example you mean this organisation, the Institute

Int: Yes... The Institute, the study, organisation, the school, what do you think the purpose of fieldwork for them?

S1: Yeah... Well I think it makes their own work more reliable, and not their own work but the way they teach actually and giving students much life experience or like a real-life work experience – although I think the reality is that a lot of consultancies or organisations are also not working with fieldwork, which is problematic – but I think the interest of the institution would be to produce good research and that just seems to be fieldwork - and in any case for them it would be about their own credibility as an institute...

Int: Have you experienced any yourself S1 where you’ve seen one institute that does more fieldwork be better and more credibe than another or is it ..?

S1: Yeah I do – I think it’s a – from working at different institutes and there are some who don’t focus on, for example, the teaching of contextual studies a lot, and a certain institute there is not an emphasis on running interviews or live interviews, or producing fieldwork in any kind of way in the graphic research... One of the institutes are having – well we are supposed to really, or not only supposed to where we try to motivate the students to go and leave the screen and leave the studio and use their home to basically engage with the public, but I think there is quite a difference, and yeah I guess it very much depends on which institute you are working for, but I would personally, I prefer those that actually motivate students to directly engage with the public as a research method...

Int: Did you think the students would, sort of, be like that as well they think one institution is always more proactive in fieldwork would be better than another or not?

S1: I think - yeah I think they cannot tell yet because they are students, but then … and it’s about teaching them how to research and it’s just like a melting pot of research to just produce fieldwork so – I think there are probably – possibly not in the first year but after several projects they realise the benefits of fieldwork... I think it also very much depends on the project and what you’re doing as a student in that case. and whatever the particular brief is but I think definitely all of them should all learn really through that whole trial and error process...

Int: And yourself was a sort of a leader in this respect – do you get more motivated, do you feel better or do you feel driven better or your sort of feelings and emotions of fieldwork?

S1: You mean the whole fieldwork or?

Int: Yeah, yeah... your own fieldwork...

S1: Yeah, I think it’s the same as can be passed on to students, and it’s a lot of trial and error...

Int: Yes...

S1: It’s like a – I enjoy it a lot, it’s a break and it’s a way of actually testing out on your research and collecting different unexpected forms of information, which I enjoy but I would – but I think very much again depends on the project and the research that you do – but I think it should be part of it, yeah...

Int: And again, in your experience are organisations encouraging more fieldwork learning experiences or less or is it the same?

S1: Well from the perspective of a tutor I think again it very much depends on the Institute where I work for – I try to propose to the university over use and the brief in the first years are very much pre-written and prescribed but I try to actually motivate students to also be more active in their research and escape from or break out from existing rules...

Int: Ok...

S1: But I think it’s difficult as it’s all happening online right now and teach the possibilities of field work, as it is very restricted this year...

Int: Exactly... Ok... That leads nicely into the next question... Have you ever led or facilitated a traditional in personal fieldwork learning experience – if so what do you think are the benefits or disadvantages? Do you want me to read it again?

S1: Yeah, no I understand it... No I have not led a specific learning engagement or a workshop in that sense of fieldwork, I have produced it for myself and my own projects, but not to teach students – I teach them through tutorials...

Int: Yeah...

S1: And now I am trying – responding to the specific briefs already asking for that as we have briefs most recently in the design department where we in particular ask students to produce work outside only – away from the laptop and work with a view of specific space at their choice to analyse so I’m passing that on but I haven’t designed a workshop in that sense...

Int: In the experiences that you’ve had, what would you perceive the benefits or the disadvantages?

S1: Well I don’t know because I haven’t really designed a workshop...

Int: But have you led or have you been involved in them?

S1: Oh no... Well from the teaching perspective – I think that the advantages are that you can collect a lot of unexpected information and the disadvantage are that there are sometimes just no results at all - or just results that you cannot really work with as you never really know how the public will respond – that’s especially if it is experimental... If you don’t have in particular someone ringing you are going to interview this person, but if it’s rather from the context of the design and you work an experiment in a public space and you don’t know how the public is going to respond, so there is the risk of whether you are not having valid information or valuable information or any information at all. But that is why I think that it’s also an experience, why it’s worth it to test out these workshops a number of times of the experiments of fieldwork...

Int: Ok... Do you think that there are any communities for which fieldwork learning experience poses particular difficulties – if you think of a cohort of students or communities, are there any in particular you think could be difficult - for example the practical aspect with some potential issues around access, egress, maybe the students’ ability to move in different environments, is there any sort of thing you can think of particular difficulties in when you are doing fieldwork learning?

S1: Difficult as fieldwork learning for the community?

Int: Yes, for the community, for the tutor, for conveying the message – anything at all you can think is a difficulty in providing fieldwork learning experiences...

S1: Yeah, I guess it’s about teaching ethical standards, that would be my answer I guess...

Int: Can you expand on that? Please, what do you mean by ethical standards?

S1: Just in the sense that you would need to teach the students, you would need to brief students exactly on how to work with the community and how to stick to some rules that you cannot just collect data and run it and use it in any way you like, and then kind of work to rules to protect privacy and be careful...

Int: Yeah, that’s good... Very interesting – and again have you got any particular examples again where you think that those were particularly valid – is there a human concept or a natural concept or what sort of ethical dilemmas have you faced or you could face do you think, for your work?

S1: Yeah I guess in my subject – I think what I experience – well I think it’s quite normal on this project I mentioned before, I was at Goldsmiths, for example, in the Design Department where we have to teach students how to try to collaborate with other people – but I wouldn’t be able to give one specific example now...

Int: No, that’s fair enough... And how would that manifest itself by collaboration on a fieldwork that you’ve experienced – like between tutor and a student or between student groups themselves - how did that manifest itself in the fieldwork?

S1: Well, between students I think it is just in dividing the work in a particular way so someone is documenting the film, someone is taking the managing or the writing of the script or interviews or just the script or how to respond to his face, and someone else is possibly reviewing this information and translating it into something else, if it’s like in the context of an art school that can also be by collecting visuals so how are you going to - think then it’s a collaborative process with a group of different people together so producing a film, well, for example, that’s a documentation and not producing the public so it very much depends on the individual skills and how as a group that organises itself I don’t know because I read the students so someone has better presenting the work and someone at writing and someone else is good at documenting...

Int: Have you experienced difficulties between, sort of like teen dynamics when you are doing field work like one takes the lead and some become less or more introverted, or have you..?

S1: Yes I think that is quite normal... I think - I have experienced, students have experienced, so just another problem of bookwork and doesn’t necessarily have anything to do with fieldwork in itself but jut research, collaborative research that you do about how to divide tasks and to visit students is always a difficulty who works more than another person...

Int: And again from a OU Manager dynamic have you seen any difference between traditional fieldwork or have you had any experience on virtual fieldwork more recently - and if so is there any better way of doing it, like you can move people if its virtual but you can’t if it’s in the field? Do you see what I mean, I’m talking about virtual field work now – have you had experience of that?

S1: Less, I mean I only have some virtual teaching out here – less I think maybe than I once had on a conversation as part of my research with people on the phone, but less using the virtual as to help me get my research prize...

Int: Ok let’s move the direction - have you ever led or facilitated an alternative fieldwork learning experience such as a Field-cast, a virtual field-trip if so what do you think the benefit or disadvantages are – or even if you’ve not led one have you experienced any?

S1: No I think I haven’t run as an educational experiences or fieldwork experience – I’m not sure if it’s a fieldwork experience but that’s another educational one in that sense, and it was just – yes very much dependent on the brief and how to engage with the public I think, yea, but I led, but yeah I wouldn’t really know of how to answer that question now... Does that answer your question or just like if I had random experience?

[Tape 1 ends.]

Tape 2 begins:

Int: Have you ever led or facilitated an alternative fieldwork learning experience? Such as a field-cast or a virtual field trip – if so what do you think are the benefits or disadvantages?

S1: Yeah, things like that you can basically go wherever you want to go so you can. if you want to do the future in the arctic its possible for everyone participating as it’s virtual – the disadvantage of it – of course there’s always you do get the aspect of actual experience and environment by going there in person and by having very different conversations with the same person if they are online and just experience the screen... Yeah I think it’s about going to what can be culturally –that you can visit a specific restaurant or you get to some, if I remember from conference that you want to, or the research that you, with a particular building or outside as part of your future or possibly also you get to if you are interested in interviewing someone in a particular village you get to see their house actually and there is a difference when you walk through a house you once had a camera on you and follow someone online, so I think that is an experience that is not a different – it’s complicated to actually to have like discussions and conversations in person whereas they can be quite normal or so online – so yeah...

Int: Do you think there are ways in which alterative fieldwork learning experiences can promote or mar the development of learning communities?

S1: Can you say that again?

Int: Do you think that there are ways in which an alternative fieldwork learning experiences can promote or if…

S1: Yes I’m pretty sure - They are an increase, yeah... Once its economically it’s a lot cheaper so the possibilities that everyone meets if its online it’s not flexible and that sense, yeah of course, then as well probably there’s like reducing Co2...

3.42 – 3.51 Blank tape

S1: Um, most likely I suppose there will be, but I don’t know if I want to do a field trip during term time - I have no clue but I suppose I will be as the whole technology is constantly doing it so it’s possible to respond, so yeah...

4.14 – 4.25 blank

S1: Yeah

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S1: And promote well?

Int: Do you think that there are ways alternative fieldwork learning experience can promote or mar the development of learning communities?

S1: Virtual fieldwork or fieldwork in general? Virtual fieldwork?

Int: Alternative fieldwork or virtual fieldwork S1?

S1: I think it will be both... I think it’s very difficult to answer that as it’s so - as it really depends on the project as its difficult to answer that question unless yeah it really rather depends on the research that we do and the risks of doing it online, that you could miss some important valuable information and there are also of course possibilities, but it depends on the context of the project...

Int: So generally, as in generally with the development of technology and innovation?

S1: Hmm.. it’s very difficult to answer that question...

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S1: Yeah, yeah... No, But again I think I need to open that question as I think it very much depends on the project – I think it’s very easy to generalise, but I think I’ll leave it open as maybe it’s a forest that can be explored to by a drone but it’s useful - but if it’s not its environmental research it’s about the arctic maybe it’s better not to fly there in person but to use technology, but if it’s about a local public space and the communities and then it makes sense to visit it... So I think I would leave that open as it feels like it’s really weird to give an answer right now as it so much depends on the project...

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S1: Yes, right...

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S1: Well I guess like you mentioned, that experiment with drawings, but I think it needs to be tested out definitely – there are different versions and probably worth it to give it a try and to just see what happens, but it’s probably nearly happening anyway, but yeah...

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S1: Yeah, yeah I’m quite open towards experimental approaches but I still prefer to – I think it makes sense to collect data and flex basis data to a difficult excess and I think then that’s how it would be towards it... But I think I’m quite interested in like leaving a tradition of that sort of – but it’s like defining our traditions right so I think I would use the experimental research has a different axis ...

Int: ….- well that’s lovely- thank you very much. The interview is over...

S1: Well actually its nice, it’s been no questions so far – I mean it sounds like an interesting interview I get... It’s a nice project and I would like to see the results...

**STAKEHOLDER INTERVIEW 2 VFRWC**

Int: Thank you very much S2 ... I’m [Int], I’m a contract researcher with the OU. I just want to introduce the scope of the project, it’s basically the experience of teachers learning in real world environments which has immense long term value. Our fieldwork has a long and respected place in education at all levels... field trips serve numerous purposes, enabling participants to experience rich ecosystems, engage with local communities, collect data and material and build learning communities. However, as visits to real-world sites are declined amid concerns of accessibility, ethicality, responsible research including costs educators and organisations have sort to develop alternative along a continuum from real to virtual ... but much remains to be understood about how such alternative experiences can promote the development of learning communities - that’s the scope that we are looking at...

Int: Ok... Excellent ... that’s the supplementary done... I’m just going to start with a couple of pre-starter questions and again if you can explain to me what you sent in your little bio which is exceptional ... if you can just give me a bit of an introduction on your experience of fieldwork prior to this and then we will just run through the questions ... is that alright?

S2: That’s fine, yes... My interest in fieldwork came as when I was a student ... I went on field courses during A levels and also during my degree... But also, I started my career as a zoology technician and later in environmental biology tutor ... I did ten years as a technician at <institution>... one of my roles was supporting field courses...

Int: Ah right...

S2: And very quickly the academic that ran those I think recognised that I was keen on natural history and let me run projects... So he ... even when ... I was 18, a failed A level student working as a technician and I was teaching Russell Group students in ecology and statistics ... which is quite interesting actually, and I just found it fascinating. I always wanted to teach but didn’t get the A levels to go into teaching... So the idea was I could do this job, get part-time qualifications and I got hooked on fieldwork...

Int: Ah right...

S2: And So for the next ten years I became increasingly more of a demonstrator/tutor than a technician on those courses... And when I became ... I liked to do my PhD ... by that stage I got my degree in <city> and I left to do my PhD I carried on as a tutor and then when I got my post at <institution> I was appointed as a Field-course ... as a lecturer running field course fieldwork... And when I got that post we started running joint field courses between <institution> and during that period I went on ... between one and four field courses very year ... at least one of which would was joined with the <institution>, either in Spain or later in Belize...

As I progressed my career I became a PL and was Resources Director for the same department and then I became Head of Section and then Head of Department... And then we merged departments and I became Head of School of Sciences... And during all that time I carried on doing field courses but I also tried to promote the field courses to other members of staff and we introduced a number of different types of field courses ... so we introduced one three days into Freshers Week ... at the end of Freshers Week rather, we introduced one that was to take Freshers down as the means of getting them to bond with each other and the staff ... we also did at least one unit that involved a field course experience for students in the second year and again in the third year as well as ... they were optional units, but as well as core units and field courses in the first year, and because my department was Environmental and Geographical Sciences I was involved in a whole series of different types of field courses, so for undergraduates for first and second year and third in Ecology and Environmental Science Environmental Management I have been on a couple of geography-type field courses and I certainly supported in resource terms, human geography, physical geography field courses... But I also went on Masters field courses. I was programme leader and then postgraduate leader for courses, which included Coastal Management...

Right, where next…. The next thing that we did we built in, together with my colleagues, ex-<institution> the then Biology Department at the <institution>... We organised some expeditions where we gave students an expedition experience ... primarily to support third year projects and these research expeditions to the Madeiran archipelago ... the smaller island, satellite islands to the Silvargan(?) islands and to Indonesia to Sunbo (?) and ran those as research expeditions but with students being trained in research techniques ... survey techniques ... and then running their own projects with supervision, and as a result of my belief that field courses are really important both for hands-on experience, understanding complexities, being able to think on your feet in terms of research and in terms of bonding students with each other and for staff … I started getting interested in pedagogy and over the years I’ve done a couple of papers on things like Biological Education and a couple of other education journals, I’ve presented to what was the Bio-Sciences side of the HEA (or whatever the HEA was before it was HEA) and to special interest groups on field course Design, field course skills development and that sort of thing...

But also there was a dearth of accessible information from the courses that we did so I started to write field notes, I suppose, for various courses ... one of which became a stats book, one of which became a series of keys to identify animals under rocks and stones - I started my life as a Invertebrate Entomologist/Ecologist and that one ... I’m just re-writing it now as a Second Edition actually, and I produced a field techniques book which came out in 2010 and its just gone into 2nd Edition this year ... sorry, end of last year... And produced a little book on studying invertebrates which goes from start to finish in how you design things ... projects, right up to how you analyse numbers. So even when I haven’t run field courses, as I didn’t … I found it difficult to run them when I was at DVC ... not time, but it became ... if there is an issue on a field course and there is any sort of disciplinary or Health and Safety investigation or anything like that and they are risky environments and things do crop up from time to time, you know, students fall over or whatever, they’ve got to be investigated by someone higher than the highest level of person who is on the trip, and that wasn’t very fair on the people who were running the trips who usually by that stage weren’t me... So once I stopped being Head of School it wasn’t fair on people to suddenly have a Deputy Vice-Chancellor investigating what was going on ... if you see what I mean...

Int: Yes...

S2: And so I stopped in 2014 basically... But even after that I got involved in occasional field days and I’ve run both field days for ... I carried on teaching a little bit, and I’ve run field days and directed field days where students were unable to attend so I’ve got a guided walk, for instance, in <institution>, on Earth ecology and I’ve used that with international students ... we’ve actually staff from Vietnam who are part of a consortium looking at Smart City work ... a consortium of six universities in Europe training Vietnamese academics in a variety of Smart City type stuff, and I was involved in advising on the environmental side... So that’s my brief summary, and it’s all been fundamental to me for a long time...

Int: Well that’s very ... thank you very much for that, it’s extremely useful for the broad ... I mean these are standard questions I will be going through now, your introduction is very rich in your very relevant data, so thank you very much for that, very wide and I’m really delighted you are a participant because I can’t think of anyone better... So if I just go through these couple of questions, then I’ll start drilling down as appropriate, is that alright?

S2: Lovely...

Int: So this is more of a formal question, if you like, from your perspective what purpose does fieldwork learning serve?

S2: OK, so I’m a great believer in learning by doing and learning from mistakes, so I feel field courses provide active learning but also safe spaces in which I try things out and perhaps fail ... so I’ll give you an example, one of the most successful learning experiences I think … a couple of students had because they did this fantastic freshwater survey in the lake ... they went round and they surveyed the physical, chemical and ecological components all the way round this lake - it started at the source and ended with the little overflow and it was a fantastic piece of work except they hadn’t taken any of those measurements at the same point ... they had moved round five metres and taken ecology measurements then moved round five metres and taken the physical then five metres and took the chemical and so statistically it was really difficult to analyse and they completely messed up the design of it- but boy did they learn from that experience how to do it better in the future and what to watch out for ... and they gave a presentation and the report at the end which was effectively a critique of how not to do it ... which was a superb piece of teaching and I couldn’t have designed it better to show other students the pitfalls of not having proper thoughts and perhaps also not having a pilot study...

Int: From your perspective as a leader, did you obviously have learning yourself and direct influence on your approach for your work actions?

S2: Yes I don’t think I ever stop learning on field courses, I think one of the interesting things I think is field courses provide an opportunity to the academics to step back a little bit from the day job, so you’re not hassled by emails, particularly if you are in rural Spain and without wi-fi... Or the rain forest or a coral reef, so you’re without distraction, you can reflect on various aspects of the …. you get close to students so that you get immediate feedback … you can often get quite good feedback from a range of staff as well, particularly if you’ve got staff who are ... have a range of experiences, or levels of experience and different experiences with people coming from different disciplines, in my department we’d often have environmental scientists, environmental managers who are hard scientists, environmental managers who are maybe more social scientists and ecologists, and so you come from different disciplinary backgrounds and that’s interesting, but there are also quite good laboratories … so we’ve got a couple of papers out looking at how students can interact in the assessment process … we had an investigation that students signed up to in Spain where the staff used the students as experimental(?) and got the students to peer assess, self-assess their own work, to examine in some cases… we set a smaller group of students to be involved in the creation of the assessments, or the tinkering of the creation of the assessment, and then we looked at various aspects of how students choose to respond to peer assessment and self-assessment and both from a gender perspective, which was fascinating, also from the university perspective, because we were two different institutions, and also from whether they had had a hand in modifying the assessment process itself or not...

Int: Do you think that from a wider perspective, because you test on things like health and safety, do you think the fieldwork learning provides a wider learning than just the actual fieldwork itself?

S2: I think it provides a number of things ... so it’s obviously got an academic framework and to that end I think students get a lot out of that... In the old days we used to have to take huge amounts of resources with us in order to wrap that academic development up ... create a little library, or whatever ... but these days, you know, you can do it either on line if you can get online ... the Belize trip, for instance, had a library of, I don’t know,, nearly a thousand PDFs of papers associated with the sort of things we were likely to be doing, so you could … you’ve got that aspect, you’ve got the students’ hands-on experience of perhaps designing and re-designing so there is a huge problem-solving aspect to it, but the risk assessment is crucial I think, the consideration of risks, mitigation for health and safety, understanding of things like costs and if you are using any chemicals in the field, preservatives, killing agents, that sort of thing, the understanding of your responsibility with the health and safety of the people around you as well... When I first started going ... when I first went on my first field course it was in the 70s and no-one talked about health and safety, but over the years ... particularly as I became more senior in the university and started to sit on university Health and Safety panels and things it was much more apparent and much more important. I always reckon that we will be one disaster away from losing field courses completely because probably, heavens forbid if things go horribly wrong, you probably couldn’t afford to have field courses taking place again in that sort of background in case something similar happened... You have to be very careful to make sure you are squeaky clean on things ... I mean not to a ridiculous level otherwise you would never do anything, but yeah... And I think also it showed students the value of co-operation and teamwork because you ... Health and Safety in particular ... drove people to work in droves, if not on the same project, on allied aspects collecting the data together so that they weren’t on their own in the field... I mean you can’t have a one-to-one integration, and that’s an interesting ... particularly for first years though, that’s interesting because they … the first years have the tendency to be a bit competitive and there is a competitive element in Level 3 education that shouldn’t apply to Level 4, 5 and 6 or above, and the idea that yes, plagiarism is something that you avoid but working together and work as a team is something that you can justifiably and usefully use and it’s a transferable skill...

Int: Yes, I couldn’t agree more, it’s a very valid point, but I’m glad the three stages have come out... If we take the next question here now, this is from an organisational perspective ... from the perspective of your organisation or organisations, what purpose did fieldwork learning serve?

S2: Well, apart from the academic, students have a tendency to score better on field-score systems than they do on other optional courses... I don’t know why that is? Maybe because they are a captive audience -if you say you are on an eight-hour day they have this tendency to work a ten to twelve hour day and they’ve got a more immediate staff support, I suppose, because the staff aren’t going anywhere... But from an NSS point of view and a student satisfaction point of view pre-NSS in terms of unit evaluation the unit responses, we always ran questionnaires so we could improve our field courses, what did you find useful, what did you find that you wanted to change … that sort of thing? Would you like it longer, would you like it shorter? There is another reason for running those questionnaires that I will come to in a minute, but from that point of view, students demonstrated how much they enjoyed them and what they got out of them and that was always a big hit with more senior management, you know, to be able to go to someone and say (and to external examiners when it came to exam boards) and to validation review events, and I was involved quite a lot with quality assurance with enhancement, so I was often wheeled out during … in the early days I was there when <institution> was run by the CNNA, we had the CNNA and HM Inspectorate of Education and I also had a number of QAA events both subject orientated and institutional and the field course evaluation was always a very positive aspect of any of those. There is a negative in that they are easy to see on the balance sheet and they look expensive, and it’s harder and harder to justify charging students... The Russell Group, I don’t know whether they do now, but they used to get an allowance for field courses that took place outside the term. They got quite a lot of money, enough money to take students overseas, whereas we didn’t … which was a bone of contention for our students paying £200 to go to Spain in the late 80s and mid 90s, we went from 86 to 2006 in total... Actually I put ten years on that thing didn’t I ... and its 20 thinking about it ha-ha... But the <institution> paid £50... They used to pay £50 and that was hard to justify... but even with that, we were subsidising quite a lot out of departmental funds and it comes out in a single amount … now I was Resources Director so I had access to all the other accounts, so I was able to a) justify it in terms of student satisfaction, you know have the other units got this student satisfaction where this one does and this one deserves the money but b) justify it and also in academic terms, these students are getting 2:1’s and Firsts, so that’s not bad for getting 2.2 and 3rds and you can … I am perfectly happy for anyone to double check or second mark or whatever... But also from the point of view I was able to extract how much the practical work in other environmental science or geographical units cost, which didn’t appear as a single line in a spreadsheet but were scattered through the year, and we were cost effective, basically... And when I became Head of School of Biology, Chemistry and Environment and Geography, when you looked at the costs of Microbiology practicals and Biochemistry practical’s and some of the Organic Chemistry practical’s you wouldn’t believe the amount that they were costing per student compared to what the field courses were...

Int: Would your sort of experience possibly of Marketing or Recruitment benefit to this?

S2: Absolutely ... yes... That again is a double-edged sword though... In the early days it was very easy to say to students well you are going to go to such and such in your third year and such and such in your second year, and there was no question about how much was it going to cost and that sort of thing... Because parents didn’t turn up in those days ... these days you are more likely to get the parents turning up with the student ... you know, the applicant... ... and it’s the first question the parent asks, so cost is a biggy in that sense, but the other thing is you can’t over-promise ... you know, CMA (is it CMA ... yes Competition and Monopolies Authority, or whatever it is ... Agency it’s called) has really worried a lot of people, and you’ve got to be very careful, so what we say now are things like ‘there will be field course opportunities and this year we went to..’ ... rather than in three years’ time you will go to… ... so that whole engagement with ... particularly the overseas one ... and particularly from the department that had geographers within it, people who may be doing geography-related degrees but were interested ... because they’d done geography at A level, that was a crucial element I think... When I took over the geography department they didn’t have compulsory field courses for anyone ... for any of their groups - they have a first year field experience that you were sort of expected to go on but there was an alternative if you didn’t want to ... or students doing wildlife biology... But that was it... Most straight biologists I don’t think could even go on them, and I introduced field courses for all biology students who wanted them...

Int: Excellent... If I said from another question ... you’ve answered it obviously earlier on in your responses, but have you ever led or facilitated a traditional in-person fieldwork learning experience, if so what do you think are the benefits or disadvantages?

S2: As a leader?

Int: Yes...

S2: I suppose the benefits are you get to run it your way ha-ha so ... I’ve been on a number of field courses where they … as I would describe them ... just look-see trips, where you round ... well the very first field course I went on as a new member of staff at <institution> we went to Majorca and the first day we sat on a bus and went round the island of Majorca and while the students slept on the bus each of us took turns with the microphone to tell the students what we were passing, be it physical geography features or human geography features or settlements or in my case the ecology, and then the human geographers pretty much abandoned the students with stuff that they could have just done in <institution>... very easily just done in <institution>, you know, a field practical basically... Looking at business profiles, from the central business district to going out to the suburbs and we were expected to do the same with the physical geography and the ecology, and we sort of rebelled a bit and did it more as a research project ... knowing what the theory was but not really knowing what the answer would be in that particular situation, and on future field courses I came to run them as that’s what I’d been appointed to and I had all the experience from <institution> and I deliberately designed them in the early days as a training program at the beginning and training in techniques, so a very brief technical base thing you could train students in the techniques, and then a research project and later on partially to reduce the cost we cut the training part off and put that back at <institution>... so we trained students in the techniques in lab work or field work on half-day and day practical type stuff and we gave them a briefing about what the environment was like and what they were going to, so they could read up on it, and then we went out and we let them loose on projects ... we did a pilot study, they designed the study, a pilot study for a couple of days and then did the main study for about 5 days... We cut a two-week/ten-day field course down to seven to ten days and saved a few bob and that meant we kept them going and we were able to increase the number of field courses we did... so I think it was more about ... control sounds a bit odd, but it was more about having the ability to design it the way that we hired other similarly-minded people felt worked best...

Int: Excellent, any disadvantages?

S2: Yes... It’s a hell of a lot of work... And it not a work model so there was a ... I was very lucky, we had technicians who would help us to book things and that sort of stuff, but because ... you know ... things go wrong, students don’t tell you all their medical issues in advance, you’ve got Health and Safety medical forms to get in from them, even if they don’t submit them you’ve got to get something from them in writing saying they deliberately didn’t submit it because they didn’t want to rather than you were just lax in just picking it up... We used to go down a day or so in advance just to make sure the habitats were still the same as they were and double check ... you know ... if you were going to do an introductory tour of various habitats you need to make sure the species that you were going to be working on were there - all that sort of stuff... Yeah, I think that was the main disadvantage, just the hassle of the extra work ... but it was always worth it...

Int: Excellent... Do you see that fieldwork learning poses particular difficulties?

S2: Yes... I think there are, particularly if you are going into somewhere where students are going to have to share accommodation, or where students are isolated ... particularly if they are going to be isolated ... if they are particularly close to parents or friends who aren’t associated with the course, or people they are in relationships with ... that can always be an issue... People with medical issues ... we managed to cope with students on fieldwork who were profoundly deaf, had real issues about accessibility ... we … I’ve never run one with anyone in a wheelchair but I have run one where people were just looking about technique at the time, therefore they were on a stage in the round. We take partially sighted and run day trips who are completely blind, but not actually on field trips...

All of those things are manageable in one extent or another, the things that aren’t manageable are people who don’t tell you they have an issue and so you can’t adapt and cope, so we don’t ... we had someone turn up on one of the field courses and after a day told us that they should have been in dialysis two days before and hadn’t bothered to find out where the nearest dialysis machine was to the field centre - that sort of thing can be a nightmare... And mental illness is particularly problematic and sometimes you suspect someone hasn’t actually known that they were mentally ill but it becomes apparent on the field course...

Int: Oh my word...

S2: So you really don’t want that in an isolated environment. We have had a situation where we’ve had to take people back... Anyone that’s addicted... Luckily in all my time, and I’m sure we’ve had students who have had drug problems but we’ve never had an issue with drugs ... we’ve had an issue with alcohol and, you know, when you are dealing with adults it’s almost impossible to cope without a disciplinary process which means they end up being returned home and if they are being returned home then there are occasions when you’ve got to return home with them... A member of staff has to go so you are a staff member down for however long it takes... So there are issues and as I say the physical illness aspects aren’t unsurmountable, the people who have panic attacks when they are in rooms with other people or who are crying 24/7 because they are missing their boyfriend or girlfriend or dog, or who get drunk, you know, early morning they fill their water bottle with Vodka and just steadily get off their head ... that’s much more tricky to deal with...

Int: Fascinating... With regards with the thing about people with disabilities in wheelchairs ... is that just as a result of your experience or is that….

S2: I’ve just ... we’ve never had a student in a wheelchair on the courses that we have run...

Int: Ok...

S2: We could do it... We did have a student in the first year who was in a wheelchair and we had planned the field courses ... no actually I tell a lie, she actually did go on ... I’ve had two, one was a First Year student who didn’t get through to the ... she left before the end of year field course, but she did go on the two-day introductory field course at the end of Freshers week... - and that was fine... We coped with that fine... We had a student who went on the first fieldtrip but sadly had an accident ... not on the field trip but it was over the summer or part the way through the next term, I can’t remember, took a year out and came back in a wheelchair and wanted to go on the field trip and we put everything in place as we thought, but then at the last minute she decided that ... it included accommodating a carer ... and then at the last minute she just decided not to go... so we didn’t put it into practice ... you know we got it all planned but we didn’t actually put it into practice as it were...

Int: It’s easy when it’s not insurmountable depending on where it is and where …

S2: These days I think it’s more and more peaceful, so I’ve been involved in a number of meetings, conferences, seminars, where those sorts of stuff that you can do now ... you know, so you can have someone with a backpack which is effectively a router and someone ... so they can be up on the hill and someone down by a vehicle effectively seeing everything everyone is doing and you could have them as the lead ... you know ... directing operations... and they can send all the data back then ... they can be the scribe or you know, we usually try and get people to take a role ... you know, either co-ordinator or the scribe, you are in charge of the equipment, you know ... so the people, even if they are working in teams, have an independent role and don’t just skulk in the background...

Int: Excellent...

S2: Some always do that... And I’ve seen really good evidence to complete people ... this group of the British Ecological Society at least one of their meetings has stuff like that ... and in fact [name] ran something that ... years and years ago at the OU before she went on her mega trip ... on, I think it was called ‘on our team fieldwork’ and there were some really good examples there...

Int: Good stuff... Final one ... just one question regarding an alternative for your work ... have you ever led or facilitated an alternative fieldwork learning experience, such as a field cast or virtual field trip ... if so what do you think are the benefits or disadvantages?

S2: I’ve run a couple, but not replacing residential, replacing day trip field courses. Oh no, I have run ... sorry ... so I’ve run ones ... well I haven’t run them, I’ve designed them and other people have run them, so what we’ve done ... I’ll do the ones that I directly run ... we have situations where for a variety of reasons, one of them is Covid more recently, we haven’t been able to run day trips or that sort of thing ... so things like ‘My virtual urban field trip’ so instead of me taking people round and exploring different habitats, and looking for analogues of more rural environments and that sort of thing, I’ve taken a photo of the various points where we would have stopped and investigated and given background information associated with that. The students can sort of self-guide if they want to go out or they can use the photos to do that. I’ve not had to implement it recently except for Covid... I had it in mind for if it was really horrible weather and we couldn’t change the date or the time... The ones that we used to ... so as field courses became more expensive and as we had students who were perhaps less keen to engage in field courses for a variety of reasons, either because they had caring responsibilities or they just plain didn’t want to go, and it’s hard to support that, what to do if you failed ... they’d appeal... They would probably succeed I think if they went to the Office of the Independent Adjudicator. We ran a variety of opportunities that hit the same learning outcomes but meant they didn’t have to go on the residential course. They were two types ... one was <city>-based which you come in for nine and work through till five each day so the duration of the trip away and one was self-study so here’s the project that we were going to run in a woodland looking at woodland invertebrates and different amounts of shade and depth and leaf litter and that sort of thing, right here’s one that you can do in your garden or your parents’ garden looking at invertebrates associated with different densities of vegetation, and because we had the books or in the early days the keys ... we could provide them in a pack of, you know, what you’ve got to do, how are you going to do it? That’s fine, that plugs a gap, it’s satisfactory ... but it’s only satisfactory... It does fulfil the learning outcomes but it doesn’t add value long-term like residential courses do, in my experience...

A colleague of mine ran a virtual field trip replicating the field trip he normally ran on block and I think he found similarly that it was great ... you could gather the data, they could go, they had photos of rocks on the seashore and they could use a quadrant and count the number of barnacles and number of periwinkles, and then they could do the various statistics on what their densities were and the distribution ... were they clumped, were they even or were they random ... they could do all that sort of stuff but you’d miss all the extra stuff, all the helpful stuff, you’ve no health and safety aspects, its entirely paper-based or computer-based, and although you could replicate it in some way it would be artificial... With mine, where they did have to go out in the garden they had to fill out a risk assessment and all the rest of it, and it was so unclean and it would have been if they had been on a hillside or something...

Int: Yeah

S2: And they don’t get any of the teamwork that they would have got ... perhaps by definition my stuff was for individuals who couldn’t make it so it was individuals and you couldn’t really pick them up... Where we did the <city> day things, then you couldn’t pick people up but sometimes their caring responsibilities meant they could only do Monday, Wednesday, Friday whereas the others could do Monday, Tuesday, Thursday ... so, you know, so it starts to get messy and it’s small numbers anyway... I don’t think you get that immersion that you get on a residential field course, which is really hard to describe and students will talk about when they come back, but they’ve no idea what that means before they go away, and they’ve no idea how to put that into practice unless everyone’s doing it... If everyone is getting up at eight and having breakfast and then out in the field , coming back for dinner at six and then working afterwards till nine or ten at night, sometimes later, because you just interested, or hitting the bar and talking about your stuff until midnight, it’s because you get hooked on it... All that sort of thing just disappears, those are the sort of extra elements to field courses. I’ve thought long and hard about how you could replicate and I don’t believe you can really... Also, you don’t get that shock value of finding lecturers might not know the answer... There might not be an answer. And the lecturers might disagree with each other on how to do something or what it means, and that I think is incredibly revealing to students, particularly those in the first year, it’s quite frightening in the early stages of the first year ... but once you realise that there aren’t ... in ecology at any rate ... there aren’t necessarily right answer and wrong answers, I mean that can be shocking for staff as well ... I mean we had one member of staff who never went back on a field course because he couldn’t handle the fact that we didn’t know what the students were going to find during the day...

Int: Right... Interesting, Excellent... Just one final question and a couple more supplementary if you don’t mine?

S2: No sure...

Int: Do you think there are ways that alternative fieldwork learning experiences can promote or mar the development of learning communities?

S2: I think they can probably promote it, not in the same way but if you had the ability to ... which you can these days ... to have it so that people are communicating in groups about what they are finding ... they are passing that information backwards and forwards.. they’re moderated by an academic who’s helping them to help each other ... that can be useful... It would have been very useful if they were all day-release students and obviously some could make it some weeks and not others because of pressure of work ... they were all rangers looking for promotion so they were doing a Masters in Countryside Management as part of their career development. and they were all experts ... you know there was someone who had been monitoring woodlands for 20 years, someone else managing upland areas for 20 years, but from my point of view I used to use their expertise in lectures ... so if we talked about woodland management I would defer the practical aspects to the expert, sort of thing, and help them manage the group discussion... You could do that sort of thing, I think, online but if people were investigating particular things then they could bring that back to the group on a regular basis ... I’m sure there are ways of doing that sort of thing ... it’s not quite the same sort of more casual water-cooler moment, but it’s the serendipity of hearing somebody talk about something or seeing what they are doing in the field and asking them about it or whatever - or someone coming back because they are absolutely fascinated as they’d seen x,y and z and telling everyone - you would miss all that sort of thing I think...

Int: Do you think that with the innovations in technology, and I’m thinking about things like drones, do you think they are going to play a more significant part in fieldwork in the future?

S2: Oh absolutely... It’s really interesting, I’ve been helping a colleague out ... I’m still doing bits of teaching even though I’m retired, and he runs the consultation unit where he gets people from outside the university to commission projects for students and in the past they’ve often been fieldwork based, but we’ve been ... with Covid it’s been much more difficult, but they’ve been doing some systematic reviews, and I set a couple of student reviews looking at the future of field work and then … that was the raw title … and then the students chose their particular aspect, and one or two of them chose a particular aspect of technological advances, so in one case it was GPS and GIS and in another case it was remote monitoring and surveying and those things are really pushing at the forefront of changes of what fieldwork is going to be like.

Our second edition of the book so we did a field ... I can’t remember the title of it now ... so Practical Field Ecology ... so it was a book for whiling(?), which we wrote in 2010, and we revisited it and it came out ... a second edition 2020. Almost all of the changes there have been technological changes, so identification guide, so in the past we were talking about right here are the libraries for birdsong, well now you’ve got apps that tell you the birdsong and they will also give you a probability of what the ones in the background are... All of that sort of stuff is just so remarkable now... The book that I’m working on at the moment ... I wrote a handbook ‘Animals under logs and stones’ and all the text on it was 1996 so we are revisiting that now... So it should be coming out the end of this year, at the beginning of next... All the taxonomy has changed and most of that is not because of typical taxonomic reviews on the basis of ornithology and anatomy, it’s almost all on molecular examination of animals and it’s hard to see how identification keys will survive, in some cases, because in some group the old hierarchy that you can identify the class, the order in the family or the genus on the basis of shared morphological characteristics and so if you go through a key and you can’t get to the species because its missing the back leg and you need the back leg, for instance, then at least you’ve got the genus, or if you can’t work out the genus because you can’t quite see a character you’ve got it at the family level so at least you go down taxonomic route ... but an awful lot of it now, the morphology looks like they are separately derived and without molecular analysis you are just not going to be able to tell ... I mean there is a flatworm that we didn’t include in the first edition but it’s in the second, there is even a genus but they don’t have species info and until they work out the molecular relationships with the others, so they find a new species dump it into this holding genus, purely and simply because until they do the molecular analysis there’s no morphological characteristics, precious few anatomical characteristics that allow you to tell they are related... And that means we are going to be moving into a scenario where I think people are going to be carrying labs on the head, or molecular databases on a phone attached to some sort of molecular probe or I don’t know how it’s going to work ... but we are certainly moving very quickly...

Int: I couldn’t agree more with you, it’s amazing the way things are transforming in all aspects of technology now. Well that the interview over, your data has been extremely rich and enlightening to me so you are the second participant for that is fantastic amount of data for us to look at and analyse so I really appreciate that. Is there anything else you want to add or …

S2: No not really... I mean its - I think it is a very interesting topic and I would be very very interested in seeing any provisional results and things. I gather this is a prelude to a wider application for funding?

Int: Yes... Basically it’s a pump-starter project to be honest, but it’s early days but I will definitely make sure you are in the loop of any final report or findings...

S2: Thank you very much...

Int: Again I would just like to thank you very much, you know, it’s been fantastic to interview you with such a wide amount of experience and your data will be really enriching for this research project so thanks for taking the time and effort

S2: Not at all

Int: Thank you very much

**VFRWC Stakeholder 3**

Int: So basically, thank you very much for joining this. This is a research summary for a research project for the Open University, and I will just say what the summary is and then I will start with some interview style questions, if that’s ok?

The experience of teaching and learning in real-world environments has immense long term value and fieldwork as well has a respected place in education at all levels.

Fieldtrips serve numerous experiences enabling the participants to experience rich eco systems, engage with local communities and collect data and material and build on learning communities. However, as visits to real-world sites have declined amid concerns of accessibility, ethicality, responsible research, inclusiveness and cost, educators and organisations have sought to develop alternatives along a continum from real to virtual, but much remains to be understood about how such alternative experiences promote the development of learning materials.

So that’s the summary so I’ll just start off with a couple of starter questions and then we’ll explore if you don’t mind?

S3: Yes

Int: So for fieldwork leaders from your perspective what purpose does fieldwork learning serve?

S3: A few for us in particular, the application of knowledge so, when in a classroom they don’t... they can’t really apply it... so for us the main reason for biology is for the application and when eventually the exam questions they can understand because they’ve already done it in the classroom it’s very hard to apply any knowledge because you need to actually do it...

Int: So the actual fieldwork, practical experience is supplementing their learning in the classroom, is that correct?

S3: Yes, yes...

Int: How do the students sort of respond... are they more comfortable in the field or are they more comfortable in a classroom?

S3: More... It depends on the... once you’ve done classroom learning, if they are confident, they respond really well to the outdoor fieldwork. If they’ve not covered it properly in the classroom, they don’t enjoy it because they don’t understand what they are doing... So for the few that we do it’s normally covered in the classroom first, and then we put it like into the actual field. So yeah, it’s really good if they’ve already done it... Some topics though you’ve just got to get out there and do it, and they are far more engaged because they are outside learning rather than sitting in the same classroom...

Int: Yeah, and does that... is there an area or have you ceased all fieldwork or is it just as and when you are running with the curriculum... or is it more in the summer?

S3: It is all ceased now, the biology, it’s no longer required. Well the trips we book are all seasonal and we follow the curriculum, if we can go outside for a day and do something... it’s not really seasonal but the beach project is seasonal, its normally in the summer time...

Int: Excellent, Thanks very much for that... For stakeholder organisations... so the school in your case... so from the perspective of your organisation what purpose does fieldwork learning serve?

S3: Probably to help with the exam techniques when you first start teaching... That’s the main point of doing it in our school, so that they can understand the questions, but also if they go on to do a science they know more about it so they know if they want to do it, science, later on... There’s more of a real-life aspect of it so they will know what it’s all about rather than just doing it in a classroom...

Int: And in your experience... because I know you’ve taught at several schools now... is it consistent, the amount of fieldwork going on or do more... do some schools do more than others or

S3: Yeah definitely more schools do it than others... It’s the department... if the department... it depends on as well the higher up the amount of admin that needs to be done before you can do the field trips... so if you’ve got a very admin heavy school where there are millions of forms, and lots of health and safety checks, like lots involved before you can even go anywhere, far less people do it because it’s so much extra work... Whereas if you’ve got a school that’s far more relaxed you find more fieldwork goes on because its less effort to turn up and pick up people...

Int: And again, on the performance of the pupils, have you found pupils who do more fieldwork achieve better or, the relationship

S3: Yeah they achieve better but they definitely enjoy the science more... They achieve better in the areas that you do the fieldwork in but as a whole they enjoy science more, the more practical and the more fieldwork you get out and about with them, they do look forward to it more, I’ve noticed that...

Int: Ok I’ll just move on to the next question I was asking, alright? Have you ever led or facilitated a traditional in-person fieldwork learning experience... if so what do you think are the benefits or the disadvantages?

S3: Yes, so I took A Level students to the Isle of Arran a few times, up in Scotland... the advantages were the relationship... it was far easier to teach them once we’d come back because they felt they’d knew me more because they’d been on an out of school experience with them, and obviously in terms of like them expanding that is always a benefit of doing the fieldwork... Disadvantage, probably the academic admin, the masses of paperwork just to take them...

Int: What kind of admin and what sort of…

S3: You would have to get all of the... so basically mainly the admin involved would be Health and Safety work half of it, I know it was only a particular school I was in, but I had to go through about five people rather than one so it was like a lot of health and safety checks, a lot of obviously if I was to take them overnight a lot of individual health and safety checks for the pupils, and then the risk assessment at the area you would kind of have to go first and double check all the areas are ok and if its miles away it’s really hard to do that... That was more of a disadvantage of doing it I think if you want to put the time in its got masses of advantages, health and safety is made easier but if not have many people to go through...

Int: And what kind of health and safety checks would the cerebral(?) risk assessor name... what happens with the health and safety issues were…

S3:

A lot were with the pupils, like what medicines they take... the obvious things, but if you are taking a big group away it’s a lot of time to check that out and you’ve got to give them all the consent forms and they need to be written and they have to be sent home and then collected in... all the extra things that need written... and then yeah going through them for the members of staff in the school... but that’s the only downside is the time required to plan it...

Int: Did the medical challenges or issues with the participants... did that cause you any problems like access or mobility?

S3: Yeah sometimes, because if you’ve got someone disabled but usually the field and work centres are quite good with the access for disabled people... its more about like a lot of diabetes and things, like if they are not very clued up with like medication you need to take, you know, for that so it’s getting... even though they should know what they are doing themselves its double-checking it, so it’s more... it more depends on the group you are taking as well, I think... With the younger groups a lot of it is the behaviour, they are very excitable and then that’s more of an issue with time to calm them down a little bit when you go out if its overnight...

Int: One other point of gender and age... is there any benefits of specific gender attracting people to STEM communities for example, or disadvantage of age... the young fieldworker not really ready when they are younger... any experience on that?

S3: Yeah I think the younger groups... I can do it any age, but if I had an age group the older groups massively benefit, because they’re into it, they know what they are doing, they are much more engaged, but the younger groups... if they are too young then it doesn’t work because if you try ... if they are too young and too many of them the excitement takes over and they don’t really focus on what they are doing and sometimes you are out with so many people but if you take a younger group and it’s in a small group of like 15-20 then they do engage and I think any age they get on and work... it’s getting the amount right with the age I think...

Int: Again excellent... that’s a very important point that you can think of... would you say there is an ideal number of participants in this group?

S3: Yes I’d say, for me, I’d say no more than 15... Because even if you have the extra staff you need to man it, it’s rare to get that many specialists... I mean people should specialise in it... to actually do it properly with them, otherwise you kind of just baby sit them and they kind of not getting the benefit of it... whereas 15 I think is an alright number...

A full class is hard, but If you stay overnight and go somewhere its harder work than it should be because there are too many of them...

Int: And the staff/student ratio... 15-1... would that be… it or would you have a sort of?

S3: Yeah I think so, maybe one or two... it depends as well on the health issues, if some of them take more, it depends on the students, but yeah I think one person can do 15... I’ve done 15 before with A Level and that was fine...

Int: I think younger you would probably need a bit more resources wouldn’t you with..

S3: Yeah they are a bit more unpredictable aren’t they...

Both ha-ha-ha...

Int: Moving on to the next question then now, communities for which fieldwork learning experience pose particular difficulties

S3: I’m sorry can you repeat?

Int: Do you think there are communities for which fieldwork learning experience poses particular difficulties... so it could be in your context it could be certain members of a student population... is there anything where it would be more difficult for fieldwork with those who more health than have mobility... any

S3: I’m trying to think now... not really, not any that I’ve thought... not any that I’ve witnessed and thought oh no, they are not into it or they’re ... not really to be honest... I’m trying to think..

Int: For example... if I think of some of the... where you took them on the Isle of Arran would that be... would people with mobility issues or health issues would that be... would that go

S3: Yeah, potentially but they still... I’ve never come across any with a health or issue not willing to overcome whatever difficulty they’ve got to do it... if that makes sense... I’ve not come across any that I’ve thought oh they’ll struggle or even moneywise the school subsidises a lot and even poorer people they’re they can always go on it... On the courses I’ve been on there’s never been an issue with cost either...

Int: Well that’s another very good bit of data there, thank you, that’s never come up before, that is a kind of potential challenge for some... so in your experience, in your area of fieldwork you found that even people from socio-economic challenged groups it’s not been a disadvantage and they’ve been allowed to go and participate...

S3: Yeah... I’ve not witnessed people not able to do it, they’ve all... normally it’s done to tick that box or making sure that a disadvantaged student are able to go out with the others and get the same experience... Some of the time it’s making sure they get the experience as well... And sometimes we like to make sure they’re fine...

Int: If I could ask another supplementary question, thinking of achievement levels and whole, some people flourish in classrooms settings and some people flourish in more sort of outdoor kind of settings, have you found that kind of difference as well where people who would possibly disengage in a classroom maybe more participatory in the field or are there any transitions where they come back and all of a sudden they’re lights have come on or …

S3: Yeah… Often when they have gone out in the field they... working in biology a lot of them like sampling, like getting into the field and sampling the quadrant or transect or all of that but in the classroom it’s very maths and they switch off a lot of the time because they don’t like maths or they think biology is something to do with maths and they kind of disengage and when they are out there they see the purpose of it and the links to like, real life biology and they are far more engaged and learn and understand why it’s happened and it does help them to engage when otherwise they would have been very switched off... if the children doing A level biology we started with maths...

Int: And again, just one more point on this question, in the schools that you’ve taught have you got a sort of social hypothetically high-value more affluent pupils or have you had a mix or is it some of each?

S3: Normally a mix... With my last school in Liverpool the A level group in particular they are normally a pretty good group because they had chosen it and they are really up for it and they have to be of a certain calibre to get onto the course, but because the school as a whole was very disadvantaged it had a lot of disadvantaged kids there and they were the ones that had the free school meals so they were the ones that were in that socio-economic group... Even though academically they were good enough to get onto the A level they would normally wash(?) the socio-economic private people...

Int: Ok that’s excellent.. I’ll just move on again now... have you ever led or facilitated an alternative fieldwork experience such as a fieldcast or a virtual field trip and if so what do you think are the benefits or disadvantages?

S3: I don’t think I’ve done a virtual one... no I haven’t don’t any virtual...

Int: No...

S3: No I haven’t done any... I’ve like helped with one from Chester Zoo where the pupil walked on virtually... I didn’t do anything, I just logged them on, and that was good... The pupil liked it but I don’t think it was anywhere near the same...

Int: No... I’d like to explore that... So, let’s try and explore that one example you’ve got...

What were the disadvantages you found or felt, or what were

S3: I just think it was so much screen... like during the pandemic they had so much screen time… they kind of were a bit, oh not another screen, kind of thing, it wasn’t... so I think the disadvantage was they were bored with using their i-pads and I think they just found... it might be better now once they are back in school and it would be more of a novelty, but I think this is for a younger group like year 8 and, how old were they, they were like 13/14 and I think when you gave them the i-pad... oh when we said to them, when they first came back we said right, we were going to go on the i-pad and there was like a virtual showing round and chatting and very little of them were excited about it because I think they had spent so much time on the computer for home learning they were kind of what...... they didn’t seem bothered by it, whereas if you had given the year 8s now I think they would be really excited to go on the i-pad and have a chat with you as they couldn’t actually go because... yeah I think it was just more of the timing...

Int: An interesting point, I’m assuming with Covid has there been any issues with your program of fieldwork due to Covid? Has there been…?

S3: Yeah, like being able to go?

Int: Yeah,

S3: No, we haven’t been able to go on any of the field trips. I’ve started a new school as well so I wouldn’t have done one this year but last year, yeah we couldn’t have done it... Because, we need, because of the uncertainty of when we looked at ringing the places, it was... because the Isle of Arran I probably wouldn’t have done it anyway because it was so uncertain, but the skill centre was uncertain, the ferry... there was too many... because of the ferry across as well then coaches so there were too many factors involved with little, so uncertain whether to go ahead, so yeah it was more because of the distance we didn’t do that... You can still take them outside and do it but we normally do like, but thought not to...

(Static on recording)

Int: ……. All part of the curriculum and the experience of learning, do you know how they manage... did colleagues use more virtual or fieldcasting or was it just...

S3: To be honest, I think a lot of it is just YouTube. I think YouTube is the best one... the teachers, of who there is a few, have gone out and kind of done it themselves and videoed it, but with the ones on YouTube you kind of don’t need to do that because there’s some really good ones already on there... So a lot of the techniques are on YouTube so that’s mainly how we’ve done it, otherwise it’s just on a video call...

Int: Yeah...

S3: A lot of it you can do in the classroom but you wouldn’t necessarily have to go out to pass the exam to actually get your A level but yeah you can get away with just doing it in the classroom... it’s still the same skills just... it’s just not the same for them, especially in biology because they know there are going to be field trips, they know there’s a lot of fun and engagement but you can do it in the classroom...

Int: And have you, again... it’s a bit of a challenge question if you like... have you experienced the difference with the motivation of the groups that haven’t done fieldwork this year, or is it the same and just feel a bit disadvantaged?

S3: Yeah I think... to be honest I think they just take it in their stride and they know that no-one has got the same experience this year so they do have the odd moan about it and say oh we haven’t been able to do this, or that, but then they all know none have done it anyway so they do feel disadvantaged but they kind of feel disadvantaged in everything rather than just the fieldwork...

Int: Ok that’s very important... Thanks for that... Let’s move on to another question now... do you think there are ways in which alternative fieldwork learning experiences can promote or mar the development of learning communities? Shall I say it again? Do you think that there are ways in which alternative fieldwork learning experiences can promote or mar the development of learning communities?

S3: Yes I think so... I think you could get... yeah there is definitely ... there is definitely ways in which you could do virtually that would help... I don’t know what they are... I don’t know what there would be out there but there’s definitely ways I think that could work promoting... even if you can’t go on the real one...

Int: Yeah, in other words, I’m thinking, reading that question to me, I’m thinking of using new techniques... you said about YouTube which I didn’t hear of that before... that’s a fantastic example of a virtual learning experience to me where it might not be as good as the real thing, if you like, but also things like new technology, like drones, do you know what I mean?

S3: Ah, yeah... yeah... Yes definitely, and lots of anything new will definitely like promote it because you could link it in as well, like get a drone... there’s ways that it could link that into other subjects as well, you could build it in like more of a STEM rather than just Biology... Even if they were to learn how to use the drone or do things that way... yes I definitely think so... Because it’s going to have to move that way at some point finally... I think... because as much as people like fieldwork there is so much technology now I think even the fieldwork seems to them a bit boring if you like because it’s using such old methods... I think if there were things like drones and using new technologies during the fieldwork, yeah I think definitely and even if they couldn’t actually go and they used something new and upcoming then yeah 100% I think...

Int: And again, just exploring that a little more deeper now, are you finding sort of like your students or pupils are more tech savvy and are hungry for new technology and new advances?

S3: Yes definitely... Because I can’t keep up with them because I think I’m doing something savvy and they are like oh this is so old like compared to what they’ve done... So I think yeah they are... I think the teachers are behind on the technology front compared to the kids... Just because we don’t really talk about technology to them...

Int: And do you think... in your experience again... would you like to see more use of technology or are you happy with the more use of it?

S3: I would like to see more use of it

Int: And would you have an understanding of what would be a good mix of percentage, like a percentage to go out on a real fieldwork or a percentage of about 60%?

S3: I think a bit like 80/20 rather than 100 fieldwork, if that makes sense?

Int: Yes, so 100% is the total, 80% out in the real fieldwork experience supplemented with a 20% approximately using the new emerging technology...

S3: Yes...

Int: Do you think that would be a good mix?

S3: I think so, yeah...

Int: Do you think it would attract more pupils to STEM from disadvantaged backgrounds or gender or..?

S3: I think it would definitely attract more boys, because boys seem to be more in for the technology aspect of it... yeah, and some girls but mainly the boys... I think that would suit them more because boys seem to be more like... because they’re into like an x-box they seem to be more inclined … more inclined to technology wheras the girls seem to like to get out and about and have a little chat while they do this and kind of work more together where if you get a lot of boys you are kind of like oh what do I have to do now, what do I have to do, so I think they would be more into the technology side of it... Yeah, but ideally like combining them, yeah...

Int: And again, from a gender perspective, are you getting more students who are attracted to the fieldwork from a male or female perspective?

S3: Female...

Int: Female like the fieldwork, yeah?

S3: Yeah... for my students they seem far more girls doing biology which is like definitely for the fieldwork if you like, as the boys seem to pick the specifics... the maths, the coding, all the like... there are the odd girl in the physics class but it’s definitely boy heavy... and biology is always girl heavy...

Int: That’s interesting... Excellent

Well, anything else you would like to say about the fieldwork experiences that you’ve had?

S3: Well one good one, it’s a bit of a mix, not really fieldwork but it was a day out rather than a big field trip but, it was interesting to do and they’ve got loads of people from different countries that teaches technology which was to create... it was only like an ‘at home’... it was a movie anyway... where they used all this technology for it but it involved pupils doing more creative … going on their phones and using the camera to take videos and picture of the animals and then they showed them how to put it all into this video... all kinds of things... like adaptations, and every single pupil all engaged because they had lots of technology they could use while they could just write about the adaptation. So I just noticed that it played a big part...

Int: That’s very, very good...

S3: They were looking forward to it and very savvy anyway... like they are so technology centred, like lots of teachers, like me, aren’t very savvy and just oh we’ll go down with a pen and paper, and the pupils are like oh god not pen and paper again... I think they prefer to use something like, in their hands, technology wise... Not even a fieldtrip... just virtual...

Int: Yes, that’s an excellent example of a blended approach to be honest with you. I think you’ve had the physical experience of the zoo visit but then you’ve got the technology to do action record... that’s excellent...

S3: Well hopefully, is that’s alright...

Int: That’s absolutely fantastic your response are very good data for me, so thank you and the team really appreciate the support that you’ve given this. As soon as I’ve done the recording I’ll make sure you get a copy ok

S3: Yeah cool. Enjoy...

Int: That’s lovely, thanks very much...

**VFRWC Stakeholder 4**

Int: Ok [S4] thanks for this I wondered if you would give a little introduction to yourself, your age, your job

S4: No problem so my name is [S4] and I am [age] I’m a primary school principal in [place] and have been for the last four years prior to that I was a principal for about eight years before the principal’s job

Int: Excellent thank you [S4], so the project summary is the experience of teaching and learning in real world environments has immense long term value and field work has long had an a respected place in education at all levels field trips serve numerous purposes enabling participants to enrich experience rich experience in ecosystems engage in local communities collect data and materials and build local communities however as real world visits have declined admit concerns about accessibility ethicality responsible research and cost educators and organizations have sought to develop alternatives along the continuum from real to virtual but much remains to be understood about how alternative experiences develop the formation of learning communities … so I have just got a few standard questions [S4] and I will just drill down and explore your responses if that’s ok, so the first one is for fieldwork leaders so what purpose does field work learning serve?

S4: So field learning allows for real opportunities for children to ..<noise> from my perspective as a primary school teacher real hands on learning for children which I find far more beneficial to children than sometimes the book learning is <noise> ….. explore those things…. <noise> hands on resources whether they be in the natural world or at museums allows children's imaginations to really invest in project and therefore with that level of interest their level of knowledge obviously goes up a lot quicker

Int: Have you found that it does it help say for example different children <noise> levels of ability, do you find that field work helps with development of children?

S4: Unquestionably yes … there’s I suppose the standard seven types of learners <noise> [something like ‘field work enhances for these different types of learners’] … having the opportunity to get out into the wider world gives them the opportunity to explore and address <noise> … for example a couple of years ago on a trip to a museum in [place] there was one child in particular that was incredibly energetic in the class room and sometimes found it very hard to sit down and concentrate on book work … the outcome of their learning wasn’t always visible in the product but when we went on the field trip it was to do with gravity and they had to create a marble track around a two-sided peg board and this child excelled to a level we had never seen in the actual class room … so I think from my perspective as a principal you have to try and create an opportunity to learn for every learner some children have an ability to soak up the books, some have an ability to soak up the environment and some work well as a team, some work well as individuals and I think field work allows all of those aspect of a child's learning to develop

Ints: Excellent and have you gained on a similar theme [S4] think of children as sort of introvert extrovert, collaboration and teamwork and even behavioural issues have you found any beneficial results or outcomes from taking them <noise>

S4: Yes so a couple of examples going back through my years of teaching and as principal … we would have had a child over the years that would have had great difficulty managing their behaviours in the classroom, as I said earlier the enclosed nature of a room, the formality of the classroom,possibly wasn’t for the learner and we went on a field trip to the zoo we were actually doing a biological study in the zoo and just the behaviour of that child was impeccable from the time we entered that zoo to the time we left simply because they didn't see it as work, they didn't see it as being forced to sit down and learn their times tables they saw this, even thought we did numerous conservation and literacy based topics where they had to research where the Siberian tiger was from or the life span of a lion … they had to read all these science from the zoo walls … having the physical restraints of the classroom removed allowed this child to flourish and prior to the trip, due to the behaviours the child had exhibited in the school we would have been extra cautious, we would have taken extra helpers, we would have had done a risk assessment before we went to see if the child might have … was a flight risk in school, and once we got there of the 30 children we took this child was the best- behaved they were engaged, they were focused, they saw value, and the aftermath of that was we learned quite quickly as a school that providing those educational experiences in a school was a way we could provide this child with a way to finish his primary education without any more trouble … it kind of lead to the development of a sensory lead(?) and the development of an eagle(?) garden and through those developments in school we tried to bring as much of the fieldwork aspect into the school as we could to help that child and others who had those behavioural issues. Another example of fieldwork being a success we had a child who is still in the school who would be very introverted they would be a selective mute which means they would not talk to adults if they choose not to, basically they wouldn't talk very much to adults at all and their family had come from a biological awareness background, they had a farm, a sustainable farm, the parents would have been biologists themselves and they would have a huge interest in all things nature, and we were lucky enough to win an eagle(?) award to go and see one of these huge farm an production companies up in [place] it was basically a massive farm they produce potatoes on an industrial level and once we were in the boardroom we had seen all of the kind of business side of it, but when we got out into the field and saw the wind turbine they spoke and opened up … it was just one of those moments that shock you in teaching because you are not expecting it you have been working so long, you have been trying so many tactics in school so many … in school strategies to help this child find their voice and literally for us it just seemed like taking them outside and they were able to talk … we got to learn a little bit more from them we realised that their passion was agriculture, it had been since they were a little child because they were exposed to their home and then again on the flip side once they had returned to school this allowed us to develop a verbal relationship with this child that we had never had before because we were able to bring their interest of agriculture into the classroom to the point where almost a year ago they wouldn't speak in front of their peers or the class very rarely, maybe to one or two friends, a couple of weeks prior to this interview today they actually stood up and did a presentation on pigmy goats to the rest of their class so yeah fieldwork opened the door for that opportunity .. so yes it has allowed us to see learners from all different area of school life flourish and not just the behavioural issues, not just the academic children, not just the sporty children, the children who we weren’t aware had passion and interests

Int: Excellent thank you [S4], from the perspective of your organisation what perspective does fieldwork learning serve?

S4: So we’re obviously a primary school so we aim to develop the social, the emotional and the academic development of children as best we can .. you can do that in the constraints of the classroom to a very small level … you’re trying to educate the next generations of children to find their passion and for me since I have become principal my main goal was to allow every area of interest in the school to be explored, so as a primary school over the last number of years we have had field trips to do with science, we have had field trips to do with agriculture, we have had field trips to do with nature, we have had field trips to do with … so many different things, IT and technology … we went to a university and saw their department, we went to local fire stations, police stations, out of the class room <noise> when you have to teach the maths, the English you read a script from a book to do with the Celts or the Vikings you are delving into an interest but you are not actually promoting … having the fieldwork gives children with a slight interest in something hands on experience that they can then choose to explore further at home … providing those opportunities for trips with their peers develops them socially they learn to work as a team, they learn to engage with their friends on the school bus … something very simple like a trip to an outdoor venue allows a child to sit next to people on a bus that they might not sit next to in class so you’re developing socially, emotionally too because you get to see how they interact with their peers, see how they deal with different situations in a team work environment and then academically again … that’s our main goal as a school we’re based on academic development of children as well as the other two areas you are providing them with areas of interest that they may never have experienced … traditionally over time children are pigeon holed into careers and professions based on their academic strengths but history has also taught us that unless you expose children to other options they may never reach their full potential so fieldwork gives us the ability to expose children to as many different areas as we can and allow them to then go and develop their own passion, their own skill, their own ability away from the constraints of an academic curriculum in terms of the text book

Int: Excellent I mean would you have any experience of maybe the grades of the school or the organisation getting better over this journey you have had with field work [S4] in your experience?

S4: Yeah 100% …prior to me taking over as principal we had a fantastic reputation as a school since … I believe not because of myself but because of the team underneath me, the work of my predecessor plus my passion for developing as many interests as I can … as a school our reputation has grown we have won four national awards for various topics such as science, IT, PE … we have developed our sports into a field trip where we go to a local athletics track and we try out as many different variants of athletics as we can, it's not necessarily the traditional sports … sports day so all of these awards and triumphs we have had individually as classes and collectively as a school … yes they look great in our award cabinet and they do our … they do our street cred for want of a better word good and they do our … ultimately what they are doing is developing all round children who have experienced many things … they then have the ability to apply everyday scenarios that they have learnt on the field, in field work, to their academic work too … we don’t have enough data and we haven't necessarily gone to the bones of it in terms of does it improve our scores for children in their standardized testing but I have no doubt in terms of word problems, in maths … if you put a child into the field and they are having to solve a problem with their friends in an orienteering centre or mapping in the forest they’re learning skills that they can then transfer to the solving of problems in maths … the same way with the comprehension tests that we do at the end of the year the standardized ones for English … you’re exposing children to vocabulary out in the field that they may never have heard … you’re exposing children to terminology they may never have heard, to different fields of interest they may never had heard of, so it's going to have a knock on transfer of information to their standardized test scores in English as well

Int: Excellent very very rich again thank you, have you … right another question [S4] have you ever lead or facilitated a traditional in person fieldwork learning experience and if so what do you think the benefits and disadvantages are?

S4: Yes obviously again with the job I have field work is huge … you know school tours … there’s one in particular that I would like to talk about … I am privileged to live in an urban seaside town so we have … but it is also very close to a rural community so we have ample natural facilities, we have beaches, we have forests, we have rivers all around us, and very close to my own home is a beach which has many many rock pools … and growing up as a child I remember my parents providing me with the opportunity of rock pooling and with my own children now I just love rock pooling, I just love going and looking for crabs and the different forms of like flora and fauna down at the beach, as a teacher we took a class there with the aim of developing knowledge of the biodiversity that is on our doorstep so obviously we see on the telly various animals and natural world and it is great seeing on these telly but when you actually experience it hands on that’s when you develop your interests … so benefit wise for me having the natural ability, natural world around me in terms of the rural seaside, the urban nature is to provide a great opportunity … so we went rock pooling with the ultimate goal of having a field survey to see what animals were in the rock pools, what flora and fauna were surrounding the rock pools, the different types of seaweed, the different types of crustaceans, the different types of shell animals, some insects, and some fish as well … and we took a class of children down there and they spent the whole day down at the beach lifting rocks, playing in the rock pools, having unbelievable fun but the whole time they were learning, they were coming across species and animals they had never seen before … some of them didn't know what a guppy was, some of them didn't know what a limpet was, some of them were not aware that when the tide goes out fish are left in the rock pools to survive until the tide comes back in and they find their way out, some of them didn't realise that crabs can make homes out of other animals’ shells and it just provided an unbelievable opportunity for all learners in the class to go and experience first-hand fieldwork that was on their doorstep … in terms of negatives around that field trip, you know it was on a beach … accessibility for some children with disabilities could be perceived to be difficult we were lucky in that we did a reccy before we went down there we found a route to the … we had a child with cerebral palsy that had a kind of I suppose movement issues they wouldn't … they would have found rocky terrain quite difficult so we found a footpath that to the beach that they would be able to access … it took a little bit longer than the other children who accessed through a more rough terrain than they did so they missed a small portion of the day when they went there but as soon as they were on that beach it didn't matter, but obviously when your down there you have to take in safety and aspects that you wouldn't in the classroom … children’s footwear, their clothing, gloves … do you increase the level of supervision, our standard supervision is one adult to 10 children plus the class teacher so you will always have the class teacher as floater … on this occasion it went one to five when we branched off into small pods … each adult would have taken their small pod and investigated different areas of the beach, I suppose a funny bit was making sure we preserved the natural environment and that was quite difficult because children get excited on field trips sometimes … the classroom rules don’t appear on the wall in their mind in terms of the children’s behaviours we needed to be constantly reminding them … I had to be on my toes as teacher bouncing around different groups making sure they weren’t pulling the wool over their helper’s eye, obviously as a school we were allowed parental volunteers so they wouldn't have the same discipline relationship as myself as the teacher so that was a little bit of a challenge, but would I do it again hands down … I would every year as a principal I would certainly encourage staff to explore numerous fieldwork opportunities and obviously it has been made a little bit more difficult this year with Covid-19 so what we’re attempting to do at the moment is finding … again we’re privileged to live in … the town we live in is close to the seaside it's close to the forest … we are looking at visiting those venues on foot because transport at the moment where I’m living in [place] at the moment … just to inform your that it's not quite the same situation as it is in [place] … so coronavirus would be a little be more prevalent at the moment the case numbers would still be high so we’re looking at fresh air outdoor activities which are safe … we can’t go to the beach because we can’t catch buses there anymore but again the stuff that we have been encouraged to explore, the field trips available to them locally, and also as a principal to explore field trip-type activities that can be brought on site, so we have approached certain companies, so like a large agricultural company is coming to the school and they are going to get children to come out in their safe pods and do some archaeology … you know dig up some old bones in the sandpits, that type of activity, I’ve got a few ladies bringing pebbles from the local beach and they will be doing some field work teaching children about the different stones down by the beach and painting them for a bit of art as well so it's cross curricular

Int: And again from a sort of governance or risk do you have any additional administrative requirements like [S4] assessment?

S4: Yes obviously as a school our day to day running is based predominantly around policies and procedures so we wouldn't just have your code of behaviour or your anti-bullying policy, we would attempt and try to cover every aspect of school life in our policy so that it's clear to the staff and there is clarity to the children, the procedures are followed up correctly therefore there is less likelihood of major incidents happening … for example on our field trips would have a supervision policy, we would have an intimate care toilet policy, I mean obviously you are bringing people in who are police-vetted so they would have a criminal records check … they’re not necessarily used to the day to day dealings with children so we would always have two members of staff to deal with the toileting issues if there are any present we would have supervision policy and procedures, we would have a health and safety risk assessment done before every trip, we would have a nice and simple … like a bus code of behaviour so children are aware of the issues on the bus, first aid is obviously massive, so before every tour staff are aware of what they need to take in terms of first aid supplies that’s in the policy they also have a phone for emergencies that the school has provided to contact emergency services, something as simple as that has happened to me on a couple of field trips … we have a policy on contacting parents when we’re on a field trip because sometimes they over-run, the kids could get excited … we went to a bird watching field trip a number of years ago only an hour down the road but we couldn't leave at a certain moment because the birds were flying in at … so it would have been unfair to the children to leave, so it was my job then to text all the parents and tell them that the bus was running half an hour late, so yeah it's not as simple as picking up the kids walking down the town and there we are everything's in front of you, there's a lot of planning that goes into play before a field trip, naturally there is a crossover between different field trips and a lot of the work, the ground work, will be done beforehand and it's a case of revising the risk assessments or revising the procedures … with the reccy we make sure we have visited the site before as an adult or we have had a good long chat with the owners of whatever venue we’re at, the beach for example providing an issue we did come into we didn't consider there were no toilets available to the children so we had to have a bus on standby to drop them back to the local leisure centre to allow them to use the facilities so all of those aspect have to be considered before you actually go out on a field trip

Int: Excellent that’s interesting, thank you very much [S4] … so just to move on to the next question alright do you think that there are communities for which field work learning experience pose particular difficulties?

S4: Can you say that again sorry?

Int: Do you think there are communities for which field work learning poses particular difficulties?

S4: Would you just to clarify what do you mean … children with disabilities, ethnic backgrounds?

Int: Yeah basically any types of groups that you encounter

S4: So yes as I said with the trip to the beach we had to consider children’s physical and mental disabilities … it wasn’t just the physical disabilities you have to consider is the child capable of understanding the rules to keep them safe on the beach … so there would be an aspect of difficulty in that community, the additional needs community … but it's our job as educators to find solutions to those problems, it’s our job to you know see a hurdle and allow the child to get over it … I am firmly of the belief that you can have a hurdle in front of you and you could have an additional need it doesn't mean it has to stop you, it doesn't mean the support network around you has to stop … with regard to other communities so we would be a urban town with quite a rural family community base but we also now have a number of disadvantaged families within the school that possibly can’t afford the costs of a field trip, possibly can’t afford the extras that go along with it, the packed lunch, we provide a hot school meal for free thanks to our government grant but asking a family to then … who may not have the financial support to go and buy the packed lunch because that is a very prominent difficulty in some families in that school it may hinder their access in terms of they will still go on the tour but will they be well fed, will they enjoy it, will they have the energy to go rock pooling in the afternoon if they haven't eaten and again it comes down to us a school to overcome those hurdles for the children … so if there was financial difficulty as the principal I would contact the parents I would offer them a bursary, I would offer them some financial support, some subsidy, I would allow them to create a payment plan around it … we also always take some spare food in case a lunch is forgotten as we do in school, I’m a father of three and sometimes you pack lunch and there’s nothing in it because you haven’t done the shop, so we would always have some extra supplies that would make sure that children are covered … I was on a tour again, the science one, the lab, a child forgot their lunch and I just nipped out to the local deli counter and bought them their lunch … I am privileged in the profession that I am in that the hurdles and barriers … it is our job to overcome them, to provide the children with the learning opportunity … this year we have had an issue with off site tours that was Covid-related … we were going to take children and families down to sea … we have a couple of local rescue centres down here and we were going to take them down there and do a beachcomb but the major issue we had is that we can’t use buses and not all families have cars, not all families have the financial support to purchase cars and pay for the fuel so when it comes to the crunch of the planning and procedures I mentioned previously this was … because we couldn't … there was no way for actually, safely, given Covid we can’t take the children in our own cars, they can’t carpool because they … as I said it's still quite severe in [place] so at that point you look at the decision as to whether to go ahead with the tour or no, with 60% of the class attending and then you’re hindering 40% … or do you call it quits and go back to the table and think of an alternative that can give every child the equal opportunity, so yeah there would be learning communities out there that would … require a bit of thinking to provide field work for but that doesn't mean you shouldn't try and that doesn't mean you shouldn’t find the solution

Int: Yes excellent thank you very much a nice jump into the next question … have you ever led or facilitated an alternative field work learning experience, such as a fieldcast or virtual field trip if so what do you think are the benefits or disadvantages?

S4: Yes so currently we’re living in a very strange world there is a pandemic, access to venues is non-existent in [place] in level 4 lockdown, so it was only this week that the zoos opened after nearly a year … so the ability to go on field trips was taken away from us … again in a privileged world we have to provide these opportunities for children … in my profession I am privileged in the fact that I have a team of dedicated teachers that all have their own ideas, that all have their own interests … they all have their own networks to find these avenues of field work so we would have done fieldcasts on the interactive whiteboards in school, we have brought companies in to have done virtual fieldwork, field trips … in one for example in [place] they developed a virtual tour of the natural history museum … I have been to the natural history museum as a principal, as a teacher and as a father and it has amazing artifacts, it has amazing displays and the virtual tour was equally as good, however you’re still learning in a classroom, you’re still seeing the bow and arrow from years gone by, you’re still seeing the bog bodies in [place], people would have passed away in the bogs and the bogs preserved their bodies which is an amazing thing to see … on the computer you don’t get the real effect on the big screen in class, you don’t get to sit there and discuss it with your mate as you would in a museum you don’t get to wonder as freely between the Vikings and the Celts era and then go back to the Celts era … and access the differences, you don’t get to see that piece of pottery from Roman time sat in front of you … and so yes I feel they’re good, the world has adapted quite well to provide opportunities but I don’t think the engagement of the children in my profession is as strong as it would be if you physically jumped on a bus drove to the museum and walked around looking at the facts in front of you … we did a [Place] Zoo tour they had the cameras in the elephant house, they had the camera in the savannah plains and you know the kids were interested for one or two minutes but soon they develop a bit of boredom around it … they’re looking at a giraffe on the telly it's like looking at a David Attenborough documentary it's good but once it's served its purpose you’re not going to watch it again but when you take them physically to the zoo they’re there and in the moment, they’re seeing the animals in front of them it's more real to them than a computer screen so yeah that would be the disadvantages of it

Int: And again I will ask the question, I’m thinking of things like sensory experiences, noise, sound, taste, smell I am assuming they would have more of an experience doing a real one rather than

S4: 100% … you know as I said previously about a child’s behaviour on a tour and developing our school to facilitate those areas of need for children … we have a sensory garden which has mobile twigs to allow a child to feel the physical movement, we have visuals, we have a pond with animals to see the visual side of things, we have a waterfall which gives you the sound, we have many many different flowers which give you the smells and the feelings they bring you, you know you can ask a child to close their eyes and picture themselves walking through a meadow and into a stream but it's no comparison to walking through a meadow and actually seeing that stream and feeling that grass sort of thing, or blowing a dandelion fairy flower … so the virtual tour doesn’t have the same physical or emotional impact that a fieldwork … that a physical, an actual physical fieldwork experience would … you can show a child an elephant on a big screen but they have seen that 100 times on a David Attenborough documentary but you go to the zoo and there right in front of you, you can as you said almost smell the elephant, they can almost feel the elephant in front of them so yeah you’re correct I think there's definitely a … the virtual tours are less attractive than the physical work tours and field trips and I don’t think that will ever change, I don’t think it should … I think giving children first hand physical experience whether they be any sense is better than looking at a screen and exploring a virtual field trip

Int: Excellent thank you very much [S4], do you think that there are ways in which alternative fieldwork learning experiences can promote or mar the development of learning communities

S4: I suppose by alternative field work you would be talking about the virtual tours would you …

Int: Yes virtual tours, innovations, drones

S4: Yes again on a personal level I think that virtual tours and alternative fieldwork limits the human development limits the … as humans how we’re naturally supposed to explore … we’re naturally supposed to go on adventures we’re naturally supposed to investigate … you know technology is amazing but you know technology is taking over and children are already losing the ability to communicate because they are on their I-pads, their play stations, their phones children are losing their ability to resolve conflict because they haven’t had conflict in the physical form, they haven’t gone to a field trip and learned how to navigate a map with five of their friends where one might want to go west and one might want to go east and they have to work together as a team and work to resolve it without … it’s becoming very difficult in that teamwork aspect, whereas technology does not allow for that, technology does not allow(?) the natural abilities of humans the chance to develop … the adventuring, the investigating, the learning from our mistakes … it's great to have a drone fly over the plains in Africa, those kind of drone flights showing the great migration but there's no comparison to going and seeing the great migrations in person … again back to your earlier comments, sense the smell, the feeling,, the touch, the environment, the atmosphere, the noise, they’re not there in the alternative fieldwork compared to the hands-on learning, for example you can see in my office I have … a fish tank, it has lovely goldfish, it's great, I can show the kids the fish but it's a very select number of fish, it's in a principal's office it does not have the same appeal as seeing fish from all around the world or one step further from the aquarium, going to the rock pools in the beach locally and seeing and touching crabs and learning how to hold a crab without it pinching you, learning how to catch a guppy in a net, learning to understand what a sand flea is … it looks like a wood louse … so children didn't know that, So I do think if I was being blatantly honest alternative field work is my least favourite option when it comes to fieldwork, because I think it hinders children’s natural abilities interest and skills

<noise>

Int: On just a similar kind of note do you think any of the mixed method or you could possibly get a balance of the two, of the real and the virtual?

S4: You can and I’ve seen one in practice, an excellent example of one, so we have around an hour from where we are wetlands and I think it's possibly the biggest migratory bird destination in Europe they all come to beach wildlife centre and the wetlands down from beach you have geese from Canada, you have geese from Siberia and many many different forms of … and many many different species of geese and fowl that come to that area and as a principal or as a parent I have been there many times and you go down there and what they have done amazingly is blend the virtual and the real so they would have an introductory video, you would go in and learn a little bit about the wildfowl you’re going to see, you’re encapsulated(?) by the environment first and foremost, you’re in the middle of wetlands in a hut, quite a big hut but you’re already taken aback by the surroundings, you have the screen in front of you they show you a very very short, very informative video, they then allow you to walk around what is a small museum with stuffed wildfowl and some hands on learning, kind of feel and touch boxes, you put your hand it, it's a goose egg, you put your hand in it's a goose feather, so you have your virtual kind of things there and you have your inside learning, your inside fieldwork with the stuffed animals, the displays behind cabinets then you go outside you’re in the middle of wetlands you’ve got bullrushes up your head you can go into a birdwatching hut and in front of you not 100 feet are thousands and thousands of wildfowl, and to me that is a perfect blend you are blending some children's ability to learn visually and in a more formal structured way and you are also allowing some children who would learn kinaesthetically through movement through sense and smell to outside

Int: Fabulous thank you [S4] anything else you would like to communicate around field work or the value of it or

S4: Again I suppose in my profession … I am lucky that, opportunities for fieldwork come thick and fast … there's never a learning opportunity in the class that can’t be taught through a field work, a small trip to the local orchard, a bigger trip the beach to do a beachcomb so I am lucky that it's part of my job … it's something that I get to do less now as a principal but still quite regularly and I get to see the learning that takes place in such a quick time frame … you’re taking 6,7,8 or 9 year old children and you’re seeing this mind grow, you’re seeing their light bulbs go off where they have found an interest … so for me I hope the technology never takes over from the physical side of fieldwork I don’t think it will and I will hopefully continue to promote it as long as I am sat in this chair

**VFRWC Stakeholder 5**

Int: Excellent thank you for that I shall just start the first question if that’s ok [S5] ... from your perspective what purpose does field work learning serve?

S5: … so I mean field work learning serves a lot of different purposes I suppose … so in the context of … we at [organisation] do a lot of our own research studies and field work … there are kind of numerous projects going on simultaneously here but one of the main ones would sort of be some of the research we have been doing in a particular area in [place] and [place] beach so we’re basically surveying the population of grey seals in that area so in that sense field work basically like would serve the purpose to allow us to have more data … and that data can then inform decisions that we as an organisation would like to make going forward and it can sort of back us up when it comes time for sort of asking for certain permissions or asking for grants or trying to get certain areas protected we sort of have research and data behind us so it is extremely important to go out there and collect that … and just to sort of provide more information as well to the public can help us better understand … the populations that we are sort of looking to protect … and additionally finding out public opinion as well about certain topics such as their thoughts towards protecting seals and having beach closures and things like that … having public opinion surveys out there can also give us power when we’re sort of asking for things from the county council and things like that … and just overall educating the public and spreading awareness of our message … trying to get into schools and getting people inspired by conservation I mean there’s really just any number of ways that field work can … help us in our various causes

Int: Thanks very much … that was vary enlightening, if I could just drill down on a little bit on it, from what you’ve just said on it do you view it as a mutual education between yourself and some of the participants so staff members and volunteers … a positive experience of learning and also some of the people who participate is that correct?

S5: So yes certainly as we do run internship programs allowing these interns to go out on field work trips helps them further their knowledge and education and gives them professional experience that they can take on board for their future careers in conservation so definitely a lot of good learning for them, and also … the main education for the people that we do get to engage with, members of the public as well … so kind of overall good learning experience

Int: Again so do you show<?> a collaboration with the education system where you are … like school and things like this?

S5: Yes we do, so I run the schools programme … we do try to engage with schools across [country] as much as we possibly can, so we would do like at the moment virtual presentations and we also sort have educational videos that they can watch as well as some activity workbooks that can go with it … so yes we are sort of engaging with schools and young people in any way that we possibly can, we used to have school tours on premises where they could come and learn first-hand and visit our centre but we have had to adapt this to a virtual format since covid 19 … as well as our road show so when schools couldn't travel to us we would take a presentation to them and go into schools, but we have suspended this programme as well just for the safety of our staff members

Int: Excellent thank you very much for that was really enlightening, the next is from a slightly different angle, from the perspective of your organisation what serve … so it's a little bit a build-up on the first response, so if you think of the [organisation] what purpose does the field work serve?

S5: Again it would depend like on the specific project that we are referring to … but ultimately it plays into [organisation]’s goal of … I mean obviously we want to be there as an organisation to support and rescue and rehabilitate animals in need but our deeper mission on top of that is to try to eliminate the need for our rescue services by just trying to create an environment in which [animals] can live healthy and happy lives, and we wouldn't need to rescue them due to all the factors that humans themselves are creating so basically that's … get awareness out there to the public to change some of their habits and daily lives, to try and mitigate climate change, to try and reduce their plastic consumption and all these other factors that are playing into [animal] injuries and health issues … and having the case studies and the data and the information available that we would garner through our field work these numbers can play a huge part in changing the minds and views of those people we are trying to reach and effect that would be the main reason why we do most of our work

Int: So is there any academic scientific research you do as well … does this feed into the data you collect into academic institutions or learnings in the field of [organisation]?

S5: Yes to some extent … we have had various very specific research projects conducted throughout the years which you can find all the information on our website under research, for example … we have done specific research on [animal] about what the most stressful part for them is through the rehab process and trying to improve our method based on those studies we have done I think there have been various studies done about wild [animal] strandings and which areas they are happening in we’re collecting a dead [animal] database so members of the public can report any deal [animal] that they find so we’re hoping to expand that research even further by taking tissue samples of the dead [animal] to try to pinpoint the cause of death and hopefully then be able to take that further and address whether it is a specific water quality issue or plastic issues in certain areas … so we certainly do a lot of that in depth scientific research as well, we have a lot of other stuff going on as well we have biodiversity studies going on as well at the moment in the [place] woods which are adjacent to us… and there hasn’t been any formal research done in regards to the [place] woods and since that is becoming … we’re hoping to get it as a protected heritage area, that research should be invaluable in getting that status for [place] woods to help protect them, I don’t know if you have heard but there are developers looking to take down some of that area which is like the worst thing that could possibly happen … yeah there are so many different things that are going on

Int: Marvelous really good response thanks very much [S5], so this is again another question building on this <noise> have you ever lead or facilitated a traditional in-person learning experience

S5: <noise>

Int: So in your career like you have just said in the biodiversity field or the centre, have you ever lead any and what are the benefits and disadvantages?

S5: So I personally have only lead the sort of surveys I was telling you about out at [place] so I have been the field lead for the day taking teams of three interns with me myself as the lead so I have conducted that in person so our goals there were ultimately to capture data about how many [animal] were hauled out in specific areas and our dual function in that was to … protect young [animal] that we we’re aware of on certain beaches to make sure that people were keeping their distance and things like that, So yeah I would say the advantage of doing that sort of research is to collect data to be able to engage sort of first-hand with people, it can be quite difficult to reach people with sort of your message of awareness through Internet channels it's much more effective to be there on the day … educating people about the [animal] and getting them to respect them as much as we do and basically because you’re there in person people will see you as a real human person and listen to your message I find so that would be some of the benefits of being there in person actually being able to be there physically protecting the [animal] and making sure that they’re secure … the disadvantages I suppose would be the amount of staff that it does take away from the rest of our work it can be quite difficult for us to staff those sort of outings, the travel and the cost that goes along with doing these things in person … there is always just the risk as well of really bad weather that particular site is a little bit dangerous as well it's on top of a cliff so if it is really bad weather and blowing gale force winds we won’t go at all so there is always the chance that it could be cancelled due to weather .. and just having to contend with those factors … and just keeping your field staff happy and keeping them hydrated and fed when you’re out for the day so I guess those would be some of the disadvantages

Int: Oh and would there be sort of like an administrative disadvantage as well, I mean would you have more admin risk assessment kind of governance requirements?

S5: Yes that certainly would be a factor as well we do have to keep our risk assessments up to date we do have to do all of that admin work, it's set up now so it functions quite smoothly we have kind of laid that work out from the beginning but certainly that was a factor in the beginning

Int: and is there any other government or natural laws that you must do or mustn't do you have to be aware of comply with any sort of legislation that you have to be careful or certain or distance of

S5: I think the only factor that does come into play is that [animal] are a protected species under the 1976 wildlife act so it is illegal to disturb or touch or lift or harm any [animal], so definitely disturbance is the main thing that we have to be very cautious about we don’t want to be disturbing these animals so that why we have located the site that we have so that we aren’t disrupting them or getting in their way it's an ideal viewpoint to look down on them from the cliffs above because generally they don’t take much notice of you and us being there helps prevent disturbances, because members of the public don’t have necessarily have that knowledge … so it's probably working a little bit more towards that legislation that we are there, but yes that is something to be aware of yes

Int: Do you have to liaise with the environment people or are you just allowed to do what you

S5: Not to my knowledge, we do liaise with the county council, in that particular case, we would work with them because ultimately it is up to them if they want to close that beach, so we did position ourselves so that we could get that beach closed off to the public … from August to April so we had to work with them obviously to get signs put up and get permission to do that and it's not ourselves that can put a rope up around that beach we have to let the county council do that themselves so it is liaising with the things like that I don’t think we needed any special permissions to go and do the field work itself

Int: Ok excellent I will just move on now, do you think that there are communities for which field work learning experiences pose particular difficulties

S5: I’m sorry can you say that one again

Int: Do you think there are any communities for which field work learning experience pose particular <noise> so it could possibly be staff with maybe mobility issues or maybe disabilities, it could be some of the volunteers that you may have to be mindful of so it's any community you can think of that would find field work disadvantaging or challenging

S5: Ok yes I understand, certainly what you said there if there were any field workers who did have any physical disabilities or injuries that would kind of rule them out unfortunately for that particular field work, because there is a bit of a trek involved and like I said the terrain is somewhat perilous, well not perilous but can be a little bit difficult, uneven surfaces even like slippery muddy surfaces and obviously kind of height as well so anyone who suffered from any particular mobility issues it would be very difficult for…

Int: If I can take a little bit of a step on that as well the people who accompany you on the school programme, the volunteers and the visitors, is there any kind of challenges you have with that community coming to visit

S5: That is also a challenge at our centre itself so we have … I mean we have reopened to pre-booked tours and we were doing that all through last summer as well as covid allows ... I mean for wheelchair users it is not really ideal for them to come along for our behind the scenes experience because we do have very uneven surfaces, gravel surfaces, and some of the feeding platforms for the [animal] for example if they wanted to come and volunteer by helping us feed the [animal] there are accessibility issues for them as well it is very difficult for them to manoeuvre in the small area behind our centre and that certainly has been an issue, but just from our public viewing area … we’re quite accessible so it's ok for people with disabilities like that … but for the behind the scenes part it is definitely an issue also

Int: OK thanks very much for that, this is taking it to another level have you ever lead or facilitated and alternative field work experience, such as a fieldcast or a virtual field trip and if so what do you think are the benefits or disadvantages <noise> with covid and

S5: Yes definitely … so I have already done quite a few virtual school tours in place of in person tours that we used to be able to do … they have gone quite well, we have been able to adapt quite well and I think a lot of the schools and organisations who have booked in with us have been very happy to adapt to that format knowing that in person are not possible at the moment, So I would say the advantages of these sort of digital online field work opportunities would be … accessibility and being able to have more reach, basically we have been able to engage with people from many different countries who wouldn't otherwise have been able to travel to us so we have had private bookings for a tour of our centre from the United States from across Europe so that has been really great being able to reach a much wider audience sort of internationally… and also being able to continue those learning experiences in a new format albeit … not having to completely shut down our schools’ programme being able to still reach and engage with young children, and also being able to provide them with opportunities like almost like a virtual field trip opportunity that they would probably be missing out on otherwise this year so there’s certainly a lot of advantages there, did you ask about disadvantages as well?

Int: Yes [S5] that would be great

S5: So yes the disadvantages are that it can be a lot more difficult to engage people when they’re just staring at a screen it's a lot harder to have that back and forth repartee with students especially because I might not see the students at all throughout the whole experience they might all be watching me on a big screen but I can’t necessary see them or engage with them so very difficult to have that same level of excitement and engagement … having to adapt the content, yes that not being able to have that first-hand experience with an animal just seeing it on a screen just isn’t quite the same thing … so yes there are some disadvantages

Int: Like I say I have had the privilege of visiting your centre, and the sensory <noise> you miss out you get the noise and possibly the visual but the smells and the atmosphere is that the kind of thing you think missing?

S5: Yes definitely, I mean we do a pretty good job giving them that close up look of the [animal] on camera but they don’t … there’s just something about being there in person that is a lot more exciting, because your like I’m only 2m away from the wild animal and that’s such a cool thing so it's just a seeing them on a screen would never quite be the same as that I suppose … certainly I still think people have been really enjoying it but you don’t get to see the looks on their faces

Int: Can I ask you a little bit of a question again then, for the virtual experience or the real experience which would you say are the best learning outcomes for the participants?

S5: I think the in-person one would be the best outcomes … when young people especially do get to have that very impressive experience when they’re seeing things first-hand I think they’re just a lot more attentive and receptive to that, that would be my perception … so I think that would be the best but virtual is a good sort of second option

Int: <indistinct> thanks very much, right finally do you think there are ways that alternative field work learning experience can promote or mar the development of learning communities, so it's just taking it a step further, So I’ll say it again do you think there are ways in which alternative field work learning experiences can promote or mar the development of learning communities

S5: Yeah so I think, the alternative versions are the virtual versions right?

Int: Yes

S5: Yeah … certainly we have experienced in the past several months that we have been able to do more sort of in a lot of ways than we have in previous years because we do have that much of a wider reach being virtual so anybody from around the world can engage with our materials not just people who live within a certain kilometre distance of our centre … there is absolutely huge potential I would say there to promote this engagement with these more alternative version and then in terms of going against that I don’t think there's any particular potential to mar like you said, mar the experience I don’t think that would be a factor I think people are just happy to get what they can at this point in time whether it is the traditional field work or the alternative we’re all just trying to make do and get what experiences we can … so yeah I don’t think there's anything particularly harmful about the virtual interpretation

Int: Just on that to take it a little bit further if you don’t mind [S5], do you see any more opportunities for sort of blending virtual and real or do you think the use of new technology like drones, cameras, video imaging with your experience of doing the virtual, do you see much, do you see your organisation doing more in this kind of space?

S5: Yeah I mean absolutely … I think this has been sort of really good learning opportunity for all of us, I mean we started out doing a virtual adaptation of our in person tour, just for the very fact that we couldn’t do the in person ones but what we didn't realise is that we were capturing this whole new audience so even when we can go back to our in person format we will definitely continue the virtual tours for people in different parts of the world … that was not really something that had occurred to us at all so it has created this sort of whole new opportunity which has been brilliant and then I think it has … also not always being able to go out in person for the [animal] surveys like I was telling you when inter-country travel was prohibited we basically had to shut that down as well so it got us more think to about setting up a camera trap or using that sort of technology that was certainly something that came out of it as well, so yeah I think that we will definitely be incorporating more of those new virtual technologies into our format going on from here, so it has definitely helped us to expand and develop even further, even also just having a little bit of downtime not having the front-facing visitors all the time has led to a lot more research projects and has given us the opportunity to do more and learn more so it has certainly helped us grow as an organisation overall and we will certainly be embracing those adaptations going forward

**VFRWC Stakeholder 6**

Int: Basically I shall just give you a quick summary of the project again [S6] … teaching and learning in long term environments has immense long term value and field work has long had a respected place in education at all levels … field trips serve numerous purposes, enabling participants to experience rich ecosystems, engage with local communities, collect data and material and build learning communities … however as visits to real world sites have declined admit concerns about accessibility, ethically responsiveness, inclusivity and cost, educators and organisations have sought to develop alternatives along a continuum from the real to virtual, but what remains to be understood is about how such alternative experiences develop learning experiences and learning communities [S6] it's a semi structured interview so what I will do is ask a few questions and then we may explore a bit more in detail

S6 Yes

Int: So first question this is for field work leaders, from your perspective what purpose does field work learning serve?

S6: Well I would say obviously I’m a teacher in Wales so obviously there's a very big drive on the new curriculum and one of the purposes of the curriculum is to build healthy and confident individuals and enterprises and within that fieldwork serves … they become risk takers and decision makers, they are helped with their mental health doing field work, so really it encompasses what we’re doing at the moment with the curriculum we’re trying to get the learning outdoors as much as possible

Int: Excellent and from the learning experience of sort of the deliver if you like … field deliverer and also the participants do you find that there is a difference between children within the classroom or doing field work, like people who do not like classroom study for example?

S6 I think definitely … I think for us as a school … we’re actually trained in forest school and so we do go out in the forest and the environment ever since you know in the early years so they don’t know any different really so they are …. A lot of the time outdoors, so whatever we can do outdoors we do, but I would definitely say they prefer being outdoors and they do prefer going on trips and things like that so I would definitely say they engage more with outdoor learning

Int: Would you say there is a difference on a gender perspective between boys and girls or do one like it more or one like it less or is it the same?

S6 No I would say overall really … I have children with [noise] in my class especially with specific needs, special behavioural needs, and they are just my current actual class it’s the boys and it seems that they do engage with being outdoors because they are more in charge of their learning if that makes sense but the girls just as much love being outdoors as well

Int: and do you find a different in behaviours perhaps within the classroom and outside in field work is there a difference between the behavior or the compliance or

S6 I think the behaviours is … because we have behaviour contracts they understand behaviours … so I think it is a continuum I don’t think there is rules outside and inside, because the rules are if the teacher asks something you comply, obviously when you are out in field work the risks are higher because you have wider boundaries compared to the classroom so obviously we have to put things in place with that, but for your child … for your standard child I would think it’s ok, but it's the children who do have behaviour issues that do sometimes struggle which is why we have support staff for outdoor learning

Int: Again your experience in different schools is it the same?, I know you’ve taught in several schools now

S6 So the school I’m currently in is heavily outdoor learning and the school previously was developing at the time but I think it … obviously in current times you can’t do as much field trips out but <noise> we’ve got it on our grounds … but I felt in other schools it was just a school trip once a term really, I didn’t feel they went out in the community as much, however that is I feel changing with the current climate and the current curriculum because the current theme now with the curriculum in Wales is with local engagement so you do have to provide and show evidence you are working with the community and they are either coming to the school or we would go to them … so for example we have had children go to estate agents because they are planning housing developments on our estate in [place] so they have had to go at learning about housing … they have gone to building sites so there is opportunity for that it doesn’t matter about the grounds but I think it's for me more in the last couple of years I would say because it's the big drive for the new curriculum

Int: And have you found an increase in attainment levels or better performance have you experienced that?

S6 so obviously we have to have literacy and numeracy throughout field work and outdoor learning … mostly it is on [indecipherable] skills for literacy and obviously reading skills but there is a lot of numeracy skills I would say the attainment is more … the wellbeing of the children

Int: Ok that’s fabulous thank you very much for that very enriching … Ok I will move on to the next question now … now this is from an organisational stakeholder perspective, so from the perspective of your organisation what purpose does field work learning serve?

S6 Well it really encompasses the four purposes in the new curriculum that makes them become healthy and confident individuals, risk takers actually working in the environment, I’m just going to refer to the notes I made give me two secs <long pause> … what they can do is apply their knowledge outside the classroom they can think creatively to reframe and solve those problems, identifying and grasping opportunities themselves, taking measured risks and deciding the risks and then they can actually play a full part in life and work … it's not just giving them opportunities in school it is to prepare them for after education

Int: And again in your experience have you found it more attractive to attract pupils to the school with those schools that did field work compared to those that didn’t like over-subscribed or

S6 100% … within my borough we are the only Catholic school but you get children who are non-Catholics applying because …. We are so encouraging them in the outdoor learning in the forest school and always have been … we do try and do field work as often as possible and you see in on the website … you see straight away on the Twitter page you see all the fantastic land that we have, that we actually use, every class teacher takes on the responsibility of thinking outside the box and taking the learning outside of the classroom to have a blended learning approach

Int: Do you find it, again a bit abstract … do you find it a nice working environment for staff and pupils alike?

S6 Yes definitely, when there's opportunities … the children are responsible for like planting and things but it’s great for myself to go and enjoy it when I need a bit of break we all go and sit on a bench, go and sit outside, go for walks, it’s definitely …. I always say how lucky we are with the environment we are in compared to concrete walls in the middle of a city definitely

Int: Excellent thank you very much for that, I’ll move on to another question … have you ever led or facilitated a traditional field work learning experience and if so what do you think are the benefits or disadvantages?

S6 So in person do you mean them coming to me or

Int: Yes you taking a class out for example to do a biology lesson or pond dipping exercise or you taking a class on a field trip-like exercise in the school

S6 Yes OK … So can you repeat the question just so I can …

Int: Have you ever led or facilitated a traditional in-person, in other words experience taking the class out in the field … and if so what are the benefits or disadvantages?

S6 The benefits as a teacher or to learners?

Int: Both … explore

S6 For a teacher I would say … it's widening my pedagogy, whereas in the past I was just a classroom-based teacher whereas now I’m more researching … more action researching into adult learning … more of blending learning approach, obviously as you can imagine again we had to learn a more blended learning when we were doing virtual teaching … when I joined the school I wasn’t trained in anything outdoors and I had to really get onboard with that so for me my pedagogy has improved … for children I would say it's mostly their wellbeing they’re becoming more healthy … and you can see the mental health and wellbeing … just this week for example it’s actually mental health week and the theme is nature and it really does [indecipherable] just say what it is really, nature does help children especially children who have anxiety and stress because of what’s been happening … they really get a benefit out of it as well … I’d say the disadvantages are just the things that could be improved … obviously you have to do a lot of risk assessments, it’s … you can’t do any in the moment planning if that makes sense because it has to be well planned in advance … whereas we’re trying to pilot in school in the moment planning we do a lot of people’s choice and if the children want to do some experience we just go with it and then the skills will come but obviously if they want to do that it's kind of retrospective because they would want to do something but then we wouldn't be able to do it for maybe a week or so until the risk assessment has been approved, and so I think that would be the disadvantage of it, is that it's not in the moment, it's more of a planned … but they still really enjoy it … it's just not in the moment … last week we were doing deforestation because of fires in [place] they wanted to go out into [place] and see it but obviously we couldn’t do it there and then but we had to put things in place so we have gone to see it this week … it's not in the moment but it's still purposeful … it's still real and authentic to them

Int: And again have you seen almost like an experiential journey … for people who are reluctant in the classroom, disengaged maybe, behaviourally challenged and then if they go out in the field does it improve their engagement and their hunger for knowledge and their things like that

S6 Yes Oh 100%, <indecipherable> you can’t say it's forest school unless you’re trained in forest school if that makes sense , so you can say outdoor learning or forest school, yeah definitely there’s children … we have groups with children who are identified … who struggle in the classroom maybe with their attainment or with their wellbeing and the interventions is all through field work and through outdoor learning to help them gain resilience, competence and responsibility

Int: Excellent thank you very much for that again very comprehensive, do you think there are communities for which fieldwork learning experiences pose particular difficulties … I don’t want to prompt your thoughts but I’m thinking of maybe people with access issues with mobility issues, maybe some other learning difficulties or whatever, are there any communities you think struggle or have particular difficulties with fieldwork

S6 So communities as specific type, children with needs …

Int: Yes in school, maybe special needs department, maybe people with mobility issues

S6 Yes, just for example for my class … obviously can’t say what it is, but we’ve got children who have got ASD, are on the autism spectrum, so things need to be put into place for them, and they find it quite difficult with new environments and normally they need to be taken to the place before they go on the field trip, so children in my class … we went on a field trip right at the beginning of September to a local shop so I asked if <name> could take them to the local shop just to show them what does it look like, so it prevents any apprehension … leading up to it when we go on our field trip and that’s one thing … I would say we have got children with medical needs that require … simple things that you don’t even think about like toilet issues … it’s very difficult if you’re going out for field work… you’ve got to realise and know where the nearest toilet is if you’re in the back of beyond and there's no toilets you do have to put things into place for children who do have medical issues with toilets, I’d also say that children who are disabled or with learning difficulties you need to have the support staff to help them, specially children in wheelchairs … and also last year I had a child who was partially deaf so you have to ensure that … because obviously I’m not trained in sign language … we have a microphone so I used to wear the microphone so they hear me so I had to make sure I was muted every time I didn't want them to hear me but as you can image in field work the signal can go so you’ve got to be aware of children like that making sure they’re close to you so they can see you and see your face and your mouth moving so there is a lot … in the last couple of years I have experienced children who had needs that have really affected how I plan fieldwork and what I put into place to support those children

Int: Excellent and one thing I was just thinking of again, exploring a little bit further … socio-economic issues, what about cost of these trips does that … pose difficulties to some of the students or is there any supplementary funding

S6 So we’re obviously the only Catholic school in the borough and we’re … it's actually one of the lowest deprived areas in [place]… that there's a lot of children who are in the borough who are getting bussed in from areas … areas that are not as deprived as children on the actual estate, and we do actually support the children, well the parents, with field trips they can’t afford and we also have the Catholic parish community and they raise money and donate money to the school to fund such field trips

Int: Excellent so you don’t think there are particularly disadvantaged at the moment in your school

S6 … no we would always ensure that a child can go on a field trip if money was the issue

Int: Excellent thanks for that, have you ever led or facilitated an alternative field work learning experience such as a field cast or a virtual trip if so what do you think the benefits are or disadvantages are

S6 So definitely we have done virtual during lockdown, we have had the BBC orchestra performing for us, where we would normally go to them we’ve had a tour of [place] … it’s great because in these current times if they didn't get to have that they would miss out a lot on their learning because they would normally have that experience however it's still not the real thing, that’s the disadvantage I would say, it's better than nothing but it's nice for children to actually be there in the moment and actually enjoying the actual field work, these companies these trips do everything they can to make it a really enjoyable and real experience for the children but they aren’t there, present

Int: So what do you think … you said it's real compared to virtual … what things do you think children or people, field work participants, miss out on in the real or the virtual what is the difference then

S6 Even just being in the environment, so for example …. Actually being able to go into [place] and do their activities in the houses and not just seeing what used to be there before, the early years children had a virtual tour of the aquarium, it's really hard to explain but … I think some children just think it's just a tv screen it's like a film, whereas it's actually there does that make sense

Int: I know I’ll try … say it's the sensory experience I’m thinking of

S6 Mmm

Int: The sights the sounds things like that

S6 <inaudible> so it's just sight they’re having rather than all the other senses yeah definitely

Int: And with the experience in Covid … do you think … which would you say would be better then, a facilitated field trip as a learning experience or a virtual field cast

S6 So yes I think definitely going there 100% … pre covid if someone had said oh would you rather go and see something or have it virtual … it's easier virtual because … you don’t have to have as much cost and as much planning but the children don’t get the full experience

Int: Excellent thanks very much for that … last formal question, do you thinking there are ways in which alternative field work learning experience experiences … sorry can promote or mar the development of learning communities, do you want me to read that again?

S6 Yes please

Int; Do you think there are ways in which alternative field work learning experiences can promote or mar the development of learning communities

S6 I’m not quite sure on that one …

Int: Just think of this now, because of the challenges you have faced as educators, last year you would have perhaps … you were doing … not last year the year before, you were doing field work and now you have had to move to more virtual … do you think that they encouraged some of the experiences or do you think the lack of opportunity to do it has development opportunities in reduction if you like

S6 Ok yes I understand ... so yes I would say a reduction because normally we would do a lot of field work as well right at the beginning of the topic like an immersion hook day and then that gets them really interested in the rest of the topic, so that’s when a lot of teaching staff do their field work right at the beginning but obviously that hasn’t been able to happen so is the possibility of the loss of engagement which means then loss of development of skills because children aren’t as engaged

Int: And again do you think any experience with covid now … do you think it could promote the development of learning communities by using virtual or alternative field work?

S6 …. I think there's a lot of opportunities …. There are some schools who are making a lot of links … wider links, local, national and international and it is great for international especially … we used to have a link with a country, Zanzibar, and that’s our big thing now, our big drive is we’re going to try to start that back up again get that link and we wouldn’t need <inaudible> to do that without that virtual … going forward after restrictions I don’t think virtual should replace fieldwork but I think it can enhance it when local field work isn’t possible

Int: Well that’s an excellent response to that thank you very much, just one thing on that process now can you see any new developments or use of new technology to do what you’ve said to either improve the virtual field experience or maybe have a blended approach

S6 So children are more and more are a lot more confident with virtual blended learning … right at the beginning of the lockdown even teaching staff didn’t know what remote learning and virtual learning was, whereas we have made a lot of progress … children have made actual progress during lockdown even without seeing their teacher face to face but I would …. I’ve just lost the trail of the question there sorry

Int: I’m thinking of things like a blended approach but also maybe new tech, like you think of drones and you said virtual tours of zoos

Int: … yes there’s a lot of scope there …. There’s education using things like Minecraft and using VR headsets and like you said drones, but I think really it just comes down to money and cost it's just weighing that up, it's important for kids to have those experiences but cost is the biggest … is the biggest block on having those technologies if you have those options … we’re a school who have very limited iPads, simple laptops, let alone things like drones

Int: So basically the hardware and the technology is being developed but is still not readily available in schools

S6 Yes I think they will probably have them at home before they have them in school

Int: If I ask you just two little questions to finish off because you have done fantastic so far thanks for that, would you say there’s a percentage if you thought of you had to do one or the other which would you choose field work as in a practical experience or virtual so which would you choose

S6 So I have to give a percentage?

Int: No first of all which would you choose?

S6 Oh I’d choose field work

Int: And if you said there was blending approach what mix of practical against virtual

S6 I think it depends on the topic whether it’s local or a wider international themes, but …. On the 80 to 20

Int: Excellent thank you very much, you’re the first one I asked that of, I’ve been getting a few responses now and that’s really good to give me a bit of insight on that

**VFRWC Stakeholder 7**

Int: Hello [S7] thank you very much for taking part in this interview, I wonder if you could give me a few introductory details please, your age and your profession please

S7: My name is [S7] and I am <x> years old I am a teacher with teaching and learning responsibilities in a large SEN special needs school in [place] I have been a teacher for 7 years

Int: Thank you very much [S7] as I say it's a semi structured so I will ask you a couple of questions and then we will explore a few points if that’s ok, so this is for field work leader so from your perspective what purpose does field work learning serve?

S7: It gives you a real authentic context so the learners … the learners can experience learning first hand … it gives them … it enables learning in the classroom to be able to … a life skill so when you’re talking about money and learning how to calculate it if you go to the shop and you buy the ingredients and it give you like a real authentic context

Int: Do you find that it is beneficial for the challenged … some of the candidates you teach does it give them … do you see them developing when you do field work

S7: Yes I think we definitely push … authentic contexts we call them in our school so when we do real life experiences sometimes for children with special needs it's hard to learn one skill and be able to use it in a cross-curricular way so relate that to life

Int: Do you find that some children benefit more some benefit better in a field work environment or better in the classroom or children who are normally better in the classroom better with field work

S7: So for a child with SEN or specifically autism which is what I teach they are very structured in their approach to learning therefore to be able to use those skills outside of the classroom would benefit their life, so autistic children, they struggle in fieldwork situations or environments that are not as structured as a class like a school environment that they know … so they could have if something goes wrong like a fire alarm in a place if we’re on a field trip or say a museum if … fire alarm they don’t know how to adapt or what do in those situations so it could be a crisis situation there because is more unpredictable in a school where they’re used to

Int: So in effect <noise> they perform better in structured environment because a fieldwork environment could cause them more challenges is that correct?

S7: Yes, you can’t really prepare for it at times and there’s different people around

Int: <noise> we will move on now to the organisations, so the stakeholders of your organisation, so from the perspective of your organisation, your school, what purpose does field work learning serve

S7: So for my school what does serve well … we want to enable children to be set up for life therefore everything we do everything that we teach in our curriculum should be for their life because their ability is so low … what we teach needs to be vital, we are not going to teach history of the Tudors because that’s not going to benefit their lives we teach them how to create a shopping list and how to go on a bus appropriately and how to pay the driver on the bus and how to plan a trip to the beach and go to the beach so that is what is important to the stakeholders in our environment is making sure that our pupils are set up for life so that’s field trips … these pupils they have their own challenges but they need to function as part of society some of them may be able to get jobs and go to work and we are setting them up to be ready for that … some of what we’re teaching them is social skills they need to be able to go in cafes or whatever and act appropriately as part of a society so that so that is maybe their skill at that level

Int: And again due to <noise> stakeholders like the Welsh government and the school do they particularly support fieldwork, do they see the value of field work or

S7: So the Welsh … the new curriculum, the curriculum for Wales 2022 states that learning should be in real life authentic contexts … they’re pushing for learners to be more hands on which is what the whole Donaldson report for the review of the curriculum states, but there are massive challenges with that which when you think of how large schools are … how to make everything real life in context it would be really challenging in a logistical way

Int: Do you see … is your school dedicated to special needs or does it attract more from the community do you see it as a school of excellence for example because it does fieldwork or is that just part of the curriculum?

S7: So our school, our school pushes from the ages of 14 to 19 year old everything to be field work … everything should be work-related or social skills-related or learning how to prepare your house, clean your house, and we have … we create and go to places that are made up houses to make them practice at a real house like the ironing … so it's not just in the classroom so my school pushes it and Welsh authority states in the new curriculum that they want to push it as well but well that’s a huge cost for them

Int: OK that’s an excellent answer <noise> this is the next question now, have you ever led or facilitated a traditional in-person learning experience if so what do you think are the benefits and the disadvantages

S7: So if I have led say a trip to [place] for example

Int: Yes that’s the kind of thing

S7: Lovely … so what are the benefits

Int: And or disadvantages

S7: The disadvantages of a place like [place] for my learners is that we went on a day when 100 other schools where there … it was very very busy, there were long queues to wait for different parts or activities around the activities … the advantage is that the pupils gained insight to lots of different learning or observing different things that they wouldn’t feel, so it enhances their senses so they can smell the old buildings or the farm whereever we were so if we were in school we would only have a picture of it if that make sense

Int: So sensory experiences are very important then

S7: Yes, for my learners because they are so low ability-wise … so give them things they can touch otherwise I would just be looking at a farm on a picture they wouldn't really get the full experience sensory-wise, and they can hear lots of different animals and see them and they can taste the bread so it encompasses all different learning experience

Int: Did you find any specific challenges of going on these field trips, preparation etc?

S7: Oh the disadvantages yes … it … consent from the parents, making sure all my paper work is in line, I obviously have a specialist class where the children have individual behaviour plans, they have manual handling plans, and they have toileting issues and changing plans and all that has to be incorporated into my risk assessment which is about a five page document that I have to create for every trip, also if we do a big trip our head likes us to go to the place we’re going to go previously and plan a route, that’s time out of my personal time so that’s a disadvantage … and because he wants us when we go to a place like [place] the toilets are suitable for all my learners so sometimes a website might say a hoist is available but due to the size of the toilet one of my learners might not be able to use it … different things like that, it's also the canteen … there might not be enough food suitable for my autistic learners because they have a very restrictive diet so you have to take into account all of it … also sometimes you can make lots of risk assessments really detailed but it's the unpredictability of the day something might happen that is not on the risk assessment, something might happen that might trigger one of my learners to have a crisis so we would have to deal with that there, so lots of my children have lots of staffing issues and risk assessments around their behaviour so how many staff would I take, I would have to take more staff from the school than I would normally have in a classroom it's the implication of funding as well for the school

Int <inaudible> next question … so do you think there are communities for which fieldwork learning experiences pose particular difficulties

S7: Oh yes <laugh> so with SEN it does give another element of difficulties when you have to consider more, more variance, one of our learners is visually impaired so I have to make sure that the path around whereever we are going is suitable for them and their aide because we wouldn’t want an accident, so there’s lots of different things I can talk about

Int: Please do that would be fantastic

S7: So with autism they might be triggered by a certain smell but being non-verbal they might not be able to communicate what upsetting them, also in lots of field trip places there's a lot of people there, the organisation has it as a money-making scheme so they try to get as many schools in a day as possible but for SEN learners and autistic learners who have behavioral problems it could be too crowded, there could be lots of people around and that could create lots of sensory issues for them

Int: So again from a … I’m thinking about costs and access, so think of any members of your school, think about socio-economic challenges for example or if you’re all funded by the school or

S7: So our school we send out a letter to the parents telling them the price obviously … me a teacher when I look at lovely trips and experiences, I look on the website or wherever and I look at the price … some of them are just astronomical that I couldn't even ask any parents to provide, so over £20 per day with no food I would not be able to, weighing up the cost and benefit of the trips is seems like it would be too ridiculous to ask parents so I wouldn't do that so that is the implication of some fieldtrips is that the children could have lovely experiences but the cost would be too much … I do work in a socio-economically deprived area so when I do ask for money say about £8 or £10 for a day there will be some learners that their parents won’t provide the money so then I go to the school and the school may be able to fund it for that specific pupil so that they wouldn't be left behind so that would be one … also some field trips the pupils have to wear specific clothing so like wellies and waterproofs and some of my pupils are not in a position to have that kind of equipment so that then would be another thing I would have to consider when planning a field trip whether I could borrow some of our Duke of Edinburgh overcoats and stuff, or whether it's not worth it or ask parents to provide it … a lot of parents wouldn't in my class so it's lots of things like that

Int: And thinking about mobility access things, is that challenging getting people on the bus and off the bus and to the areas is that a challenge to you?

S7: Yes, so in [place] we are lucky that we have lots of field trips or real life contexts activities that are in quite short distance, because we couldn't travel long distance with lots of children with challenging behaviours or autism or who have mobility problems … children in my class or my setting they would struggle with a journey over half an hour they wouldn't be prepared for it so that would be another restriction in the boundaries of where I could go, when we get to places obviously we have a disability mini bus, but when we get to places they might not have places for us so what we normally do is the driver would have to drop us off and then they would have to go and find a suitable parking place because obviously lots of my learners can’t walk for a long period of time

Int: So on another interesting question <inaudible> how important do you think field trips is to your sort of pupils

S7: I think my pupils in life are not going to have a huge array of lots of lovely experiences so what I do, what we do as a school through education, is try give them a nice learning experience … they might not be able to be in a field trip and be able to see and sense, to go the beach with their parents because they’re so challenging they wouldn’t be able to do that with them, to give a pupils a holistic approach to education is lovely … to do lots of field trip work with them … however it's a lot of planning and risk assessment and challenges for people who plan it and there's a huge risk on the head of myself as the lead or the head who has to sign off all the risk assessments I remember when we went to the beach once I had to find out what time the tide was coming in and out at that certain beach just even if I wasn’t going on it just in case anything went wrong … so I do think real life experiences are vital for our learners it gives them a lovely experience but you weigh up the pros and cons to plan a field trip exercise for SEN learners takes a considerable amount of time planning obviously sometimes cost

Int: Excellent thank you very much for that it's useful … thank you … have you ever led or facilitated an alternative learning experience such as a fieldcast or a virtual field trip if so what do you think are the benefits and disadvantages

S7: So no, not for my learners we haven’t done anything virtual yet however my school is spending their covid money on a virtual reality headset so we’re having about 50 virtual reality headsets for our school so for your learners to try to experience different places or field trips virtually so I am looking forward to seeing how my learners react to that

Int: And in that particular group the community of your school if you like would they be able to use technology, would they be experienced in using technology so like games and game things or would that be a challenge themselves

S7: So for my specific class they wouldn’t be and I don’t think they the sensory headset they would like too much but I haven’t seen them use it yet, but lots of the pupils who are in our school who are autistic or who have learning difficulties, who are more high functioning than my class, they love games and virtual reality and they watch different things and they watch like the drones and stuff on YouTube so they really are engaged with virtual reality

Int: Thanks just moving on now to another question … do you think there are ways in which alternative learning experience can promote or mar the development of learning communities

S7: Can you say that again?

Int: Do you think there are way in which alternative learning experiences can promote or mar the development of learning communities ?

S7: Ah so instead of going on a field trip, use digital, use virtual … I think in some aspects that it would be able to give them more of an insight in or have an experience in virtual reality but you know for teacher-wise and cost-wise that would be easter for me personally but are you really giving them the true context of what is really like to be in a zoo or the beach and no I don’t think you would they wouldn't gain the full sensory experience

Int: Do you think … you have said a very important thing … you’re moving into the technology the virtual now, do you think that there is an opportunity for further work in this area with your specific community do you think that special educational needs, do you think there will be more use of technology going forward for fieldwork

S7: Oh yes I think definitely and lots of schools, especially special schools, are investing for adaptive technologies to enhance learning for special needs and that goes along with virtual field trips and stuff so …. So that has been more developed over the last years for pupils with special needs to access technology whereas before they would not have been able to access technology and give them some sort of experience via technology however would it give them experience as actually being present there … I don’t know

Int: If you think of this now, I would think it's very challenging to arrange and manage these could there be a mix of blended approach where you could have some real field trips supplemented by virtual field trips

S7: I definitely think there could be yes … especially if you have one learner who couldn’t access part of the field trip via stairs or something because there isn’t access to it but then that virtual would enhance that leaner to get some of the experience, so do think a blended approach would do

Int: Again picking up one of the first points because your group is … it can be quite challenging for them to move from a structured environment to a non-structured one like a fieldwork do you think there could be a mix between almost like a bridge between virtual and real so give you more of a

S7: Yes like a transition

Int: Like a transition yes exactly

S7: Yeah we do lots of that when … say we go to church for christmas then we will show pictures of the church and where we will sit to prepare the autistic learners so actually if we did more of a virtual thing I think it would be really beneficial for children who have really high anxiety with transitioning to different places that they are unfamiliar with so yes I think that would crucial and really beneficial

**VFRWC Stakeholder 8**

Int: Hello thank you very much for taking part in this interview, I just want to say I’m doing this interview on behalf of the Open University in relation to field work so can you just give me a brief introduction to yourself

S8: Hello thank you very much for having me my name is [S8] I’m a primary school teacher

Int: Thank you very much … it's a semi-structured interview so basically I will start with some questions … and then we may drill down and explore a few answers, the first question is basically for fieldwork leaders, so from your perspective what purpose does fieldwork learning serve?

S8: Fieldwork learning is very important especially in the primary schools … there are so many benefits that children can get from fieldwork learning and as we know children learn best through active experience and they learn best through hands on experiences and unfortunately they don’t always get it in the classroom … I’m currently working in the younger end of the primary school and it's definitely valuable for this age group, lots of children learn through different means and it has always been clear that active learning is key to understanding and remembering as well for younger children have a love of learning and meaningful experiences it may also allow children who have difficulties in reading and writing to access material in a new way and it definitely gives them a sense of their independence and being able to control their own learning at their own pace

Int: Excellent and do you find it say children who may be introverted or struggle in a classroom setting deal with it better in the field or vice versa

S8: Yes some children might, some children just don’t have the confidence to be able to speak out or to be able to get involved in a classroom setting and you often find that when they’re in smaller groups or when they’re left to their own learning they definitely come out of themselves and they definitely get greater benefits from field learning

Int: Ok thank you, so from your sort of stakeholder organisational setting, i.e. the school, from the perspective of your organisation what purpose does fieldwork learning serve?

S8: [silence] It could always be better I suppose but definitely does serve a purpose … I find that even with children who are having difficulties in the classroom that when you bring them out and about and they get to do that hands-on learning that you see that they have less behavioural problems, that they are more engaged with what's going on and you’re fostering their independence as well … it enhances your curriculum as well there's only so much certain children can learn from books and technology in the classroom but when they get out there and experience these things themselves it promotes their engagement and it really helps to get them involved in their own learning and I often just find that when schools have a good name in really active learning that it helps promote and attract other children to the school

Int: Excellent and is it sort of heavily part of the curriculum, fieldwork?

S8: Not at the moment I don’t think, I think in the times that we’re in it definitely could be improved because we haven’t been able to get out and about as much as we would have in the past and go on field trips to different venues … it definitely needs to have more of a place in the curriculum in my opinion, that it should be promoted more

Int: Ok thank you very much for that, and this is the next question now have you ever led or facilitated a traditional in-person fieldwork experience and if so what do you think are the benefits or disadvantages?

S8: Yeah well with the exception of this year we have <indecipherable> been able get out many a time with the school but I have had up to <indecipherable> what would be up to your year 6 in the UK but I’ve been in many different places … that one experience that we might have done with infants is that we would got to say a local petting farm which has great advantages because being from a commuter town and many of our children have moved from the city so they just don’t get the same experiences on the farm … many of them haven’t seen a cow of a sheep or a chicken in real life so you can imagine the excitement and the engagement that goes on there … they get to see real live animals … on the other end I’ve <indecipherable> my staff to <indecipherable> from the local community … we’re very lucky to have a very beautiful local community where we have rivers and the local beaches, there's a local forest, we have a gentlemen that comes in and brings in some <indecipherable> and he brings in the RNLI and maybe … such as the local graveyards, the children actively love going there and learning about it and it gives them a sense of belonging and a sense of community and that they are proud of where they are living now … Like I say many of them moved down from [place], they’re proud of where they’re living now and they understand the history of where they are living … … there's definitely disadvantages as well that go along … like for example … just health and safety of course you have to set where you’re going to go <noise> if you’re going to places where you have to charge an admission fee and unfortunately you might have to charge a fee for buses and all that kind of stuff it can be costly to get there and get back, even simple things such as where lunch is going to be had, if it's going to be safe to do so there, if there is going to be toilets there … when we get out and about in the local community we have to account for toilet breaks and where we are going to stop for lunches that kind of stuff <noise> and of course there is the supervision aspect of it too because unfortunately there is only one class teacher in our classes so we need to have extra bodies to come out on these tours and that’s not always possible

Int: That’s excellent … would that extra body be like the learning assistant or is it volunteers or how would you get extra support

S8: So normally now because in our system everyone had to be [organisation] vetted that comes in and works with the children so it will have to be a member of staff from the school so we have an extra learning support teacher so they would have to come or someone that was working with an additional needs child they would assist us in coming … again depending on numbers you have to have a certain ratio of adults to children to go out and do these field trips

Int: Is there any socio-economic challenges presented by the children going on these learning experiences in your community

S8: … How do you mean, like if different background or

Int: Basically from different socio-economic backgrounds is that a challenge or do you find the majority of people

S8: Oh yeah especially if we’re going on a tour that maybe costly because €10 could be nothing to you or me but it could be a family buying bread for a week … as well as that there's also different beliefs and all that sort of stuff to take into consideration as well … like in my class there’s all different kinds of cultures and they’re … all that kind of stuff as well their parents mightn’t appreciate that visit to the graveyard that I mentioned earlier you know that sort of thing you do have to be mindful of all the different things that are going on in all the different families

Int: Excellent thank you for that, moving on now … do you think there are communities for which fieldwork learning experiences pose particular difficulties, you mentioned religion but maybe other things like special needs … any particular communities in your school or the environment which would on these field trips … do you find there's anything in particular

S8: Well there's always the children with additional needs isn’t there and they can vary from anything … from a child that’s on the autistic spectrum who wouldn't be able to sit comfortably on a bus or wouldn't like the loud noises or wouldn't like the whole change of routine to somebody that would need to have wheelchair access you would have to look into making sure they were accounted for … even the simple thing of getting them to their destination … before you go you work out if where you're going is actually accessible for them… just basically accessibility … disadvantaged children that genuinely wouldn’t have the funds to get there, even simple things like going swimming maybe … we just have to be very mindful of keeping the boys and girls in the changing area that there's room for both of them or if there’s children that even experience different emotions and want to get changed separately that kind of stuff we just have to just have to make sure of <noise> everybody even prior to getting to your destination and then as well as that the supervision when you get there

Int: Excellent and just drilling down a little bit there … with children who have not got any special needs and then children with special needs … like I’ll give you an example some children are not very attuned they don’t really engage and they go out in nature and they thrive more or contrary to that if you think the children you mentioned, people with Asperger’s or learning that can go out from a structured environment i.e. a classroom to a non-structured one can be quite challenging have you experienced that?

S8: Oh yes a classic example is the children who are just not able to learn the same way as everyone else … you often find that children with behavioural difficulties, and oftentimes boys in particular really love that getting out and getting their hands stuck into things and you find the absolutely thrive, and I have experienced that … there is a child within our school they are currently going blind they have a tumour on their brain and they’re currently going blind in both their eyes so it is a great challenge for them to get on a tour even just down the road to a post box but they still need to be given these experiences because otherwise they won’t have chance of that independence of thinking that yes I can do it and <indecipherable> out of the school instead of just stuck there all of the time it's really important for them still to be able to do it as long as it is done properly

Int: That’s perfect, and again have you found with some of the children with behavioural difficulties or <cough> who don’t really engage in the classroom setting, have you found a more positive experience after the field work they <noise> write it up or talk about it <noise> and do they then get more engaged in other lessons do you find?

S8: Oh yes definitely I often find that they really do talk about it afterwards and they’re really engaged in the subject, I’ll give you an example of a child that I had when I had year 6 … their second name was [name] and there was an old heritage centre here all about the 1798 rebellion so we went and they learned there all about Father [same name] who led the rebellion in the local area that we’re in and … this child would have had reading difficulties, writing difficulties, they would have had difficulties accessing every part of the curriculum and what we found while we’re on this field trip to the local heritage centre, they were absolutely borderline obsessed with it and couldn't learn any more about the rebellion, any more about the history part of it, suddenly developed a massive interest in history and was absolutely amazed at the transformation that was in them to go from they wouldn't do anything and would not engage with anything that was going on in the classroom to loving learning about history it was amazing

Int: Fabulous thanks very much for that it was really rich … thank you, moving on now have you ever had, sorry have you ever led or facilitated an alternative fieldwork learning experience such as a fieldcast or a virtual field trip if so what do you think are the benefits or disadvantages?

S8: Well prior to this year I hadn’t really engaged in online content … might show maybe a YouTube video or something like that but unfortunately I hadn’t experienced it that much … due to Covid this year schools were shut for quite a considerable amount of time we had to do a bit of it ourselves … I had to take pictures myself, go out on field trips myself to the local area and take pictures and show the kids that I was out and about, and things they could get out and about and see for themselves … I did little scavenger hunts where I showed them where I was going, that sort of thing, I’ve also in the classroom … we’re in back luckily … a recent topic we were doing was on the zoo, and we were able, now normally in any other year we would go on a visit the zoo but unfortunately this year we weren’t able to do that so, but luckily we were able to go online to [place] zoo and do a virtual tour of the zoo and you can visit all the different enclosures and show them what it would be like if they were actually able to be there which was great, but the disadvantages are though that they’re not actually there, they’re not seeing those things, not getting the sense of the route that they would get if they were there for themselves, you know the sensory experience of it all, being able to smell the animals just being there in person always makes thing stick in your mind

Int: Excellent and again on an advantage or maybe a disadvantage do you think cost could be … like you said some of the socio-economic … if you did a virtual tour of the zoo there would be some savings in money so it could make it more accessible to disadvantaged members of society perhaps

S8: Oh yes definitely… and as well as that it backs up what you’re learning and in an ideal world you would be able to get them to do that tour of the zoo get them < noise> and then go their in person <noise> and then be able to go back there again <noise> they will be able to say for themselves oh I remember this and I remember that and it would reinforce their learning as well

Int: and again you mentioned your photographing and your videoing do you find additional to that … a positive addition to maybe normal fieldcasts when things maybe challenging where you’ve maybe gone out and taken a picture and used them in your classroom

S8: Oh yes, and do you know what, even for themselves they absolutely love seeing things that you have done, your actual experience … really brings home to them that oh this was here and teacher took a picture there … do you know that kind of way it really benefits them and it really gives them a way for them to see it for themselves, they love technology as well and so if you’re able to get it on the iPads or whatever and they’re able to zoom in and out and see for themselves if they’re able to play back a little video of that they’re after doing … that they have lost if for a second but it's still there for them to go back over and see it again and again if they need to

Int: Excellent thank you very much for that … now do you think there are ways in which alternative fieldwork learning experiences can promote or mar the development of learning communities

S8: … Can you repeat that again?

Int: No problem, do you think there are ways in which alternative fieldwork learning experiences can promote or mar the development of learning communities?

S8: Oh yeah it can definitely promote it, there’s no doubt that it can promote it like I said previously a more blended <noise> approach to learning would be the best out of all of it, what I said for our local trip ideally you would be able to go to google maps or you would get the pictures of the local area and you would be able to discuss it beforehand what route you’re going to take that kind of thing and then go on your walk and come back and see, take your technology with you, take your pictures, come back into the classroom and look back over what you’re getting and bring back in, discuss what’s going to happen, and then it's fresh in their minds as well and they’re able to look back and not forget the things that you’re learning

Int: And again from a certain learning experience i.e. with technology now, you have obviously moved into this space now looking at virtual tours of the zoo … have you got technology readily available to embrace this new approach to fieldwork

S8: No unfortunately, our school may have a few bits but we wouldn't have as much as others may have … we have like the interactive whiteboards we have an iPad per class … even to have an iPad readily available to all children would be more beneficial … we have a school camera but again that’s just between the whole school … it’s difficult enough for everybody to access it, but if you had the technology available in the school it would be absolutely amazing, I do know in the UK because I did my training in the UK that technology will be more important … not more important but more promoted over there so hopefully they would have better access to technology than we would in [place] but unfortunately now, now the online stuff that has been done just in this year … the Internet … like most parents would have access to phones and laptops and that kind of stuff all at home in that regard it's much easier and the platforms … prior to Covid I would have only one online means to communicate with parents and now it's three or four so there's always a way for them to check in in what we’re doing and for us to check in what they’re doing … the platforms have definitely improved but the technology we have is still a long way off unfortunately

Int: And is there any gender difference between the children using different technologies boys are better than girls or is there no difference they’re all tech savvy

S8: Um most of them would be tech savvy but you definitely see a difference that boys vs girls would spend on their computers, nine times out of ten you would find that the boys would be better at fixing computer problems than a girl would

Int: And do you see any further innovation in technology … maybe a blended learning approach in your

S8: That would be ideal wouldn't it, it would be ideal … technology is definitely going to be the way forward and it engages children so much more, so learning and technology would be like the two things that are best for children, to engage them, to promote their independence, to get them working, to get them working happily more than anything else because we want school to be a fun place and we want the learning to be enjoyable rather than just opening books and answering questions and reading and writing and maths … to really develop themselves and to learn themselves and I think that definitely online learning and field trips … I don’t know about you but myself what I remember from school is my field trips and I always enjoyed them and I know that kids are still these days the same so

Int: And do you think there will be any more innovation and I’m thinking of things like drones, you may not have the technology yet … do you think, do you think there will be more of a percentage split because of cost and ethical challenges almost like an 80/20 rule where the benefits are unquestionable for fieldwork but if you had a blended approach could you give any idea of a percentage you think would be optimum or very good

S8: … I’m not sure to be honest with you … the problem with drones and things like that is you have the privacy issues and all that sort of … as well … I know with technology we have had quite a few problems with video … children in the older classes are bringing phones now into school and video recording and that sort of stuff so there's always going to be issues with security … there’s always going to be issues with supervision … it's supervision I suppose more than anything that you’re able to get around and you’re able to check that everyone is using the technology and everyone is behaving themselves on the field trip but it's a very tough one to answer sorry

Int: That’s ok, so your opinion is that fieldwork is an essential part of your curriculum and your school community and the broader community of your region yeah

S8: Oh definitely, the children absolutely love it, the teachers absolutely love it, it is an essential part … the only thing I think I would say is we need more of it to be honest