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Journal of Geography in Higher Education

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/cjgh20

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To cite this article: Emma L. Peasland, Graham W. Scott, Lesley J. Morrell & Dominic C. Henri (24 Oct 2023): Student employability enhancement through fieldwork: purposefully integrated or a beneficial side effect?, Journal of Geography in Higher Education, DOI: 10.1080/03098265.2023.2267459

To link to this article: https://doi.org/10.1080/03098265.2023.2267459

Published online: 24 Oct 2023.

JOURNAL OF GEOGRAPHY IN HIGHER EDUCATION
https://doi.org/10.1080/03098265.2023.2267459

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Student employability enhancement through fieldwork: purposefully integrated or a beneficial side effect?

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ABSTRACT

Fieldwork provides opportunities for students to develop employability-enhancing transferable skills as well as technical, discipline-specific skills and disciplinary knowledge. However, the extent to which staff purposely plan transferable skills outcomes of field courses, and, therefore, whether they are communicated to students is unknown. We investigated whether staff intentionally plan transferable skills development opportunities into fieldwork by interviewing academic staff responsible for planning and leading residential field courses at a UK university. We also conducted a thematic analysis of associated module specifications and teaching materials to understand whether transferable skills were signposted to colleagues and students. Our findings show that although most staff recognise that their field courses help students to develop transferable skills, staff awareness of skills and professional development outcomes is narrowly focused on technical skills and discipline-related careers. Furthermore, those transferable skills outcomes that staff are aware of are not fully translated into module specifications and infrequently signposted to students via teaching materials. These findings suggest that transferable skills form a hidden curriculum of fieldwork. To maximise the employability benefits of fieldwork, we recommend that all skills should be signposted to students both during field course teaching and also via the associated teaching materials.

ARTICLE HISTORY
Received 21 June 2022
Accepted 1 September 2023

KEYWORDS
Fieldwork; hidden curriculum; employability; skills development; competency-based education

Introduction

Graduate employability is an important issue for Higher Education Institutions (HEI's) (Artess et al., 2017; Sarkar et al., 2016; Sin & Amaral, 2017). Indeed, many students enter higher education specifically to enhance their employability (Artess et al., 2017; McCune et al., 2010; Tavares, 2017) and government policies internationally call for universities to provide employability-enhancing opportunities for students beyond the awarding of qualifications (Bennett & Richardson, 2016; Sin & Amaral, 2017; Walker & Haines, 2016; Wang et al., 2012). International focus on universities as a place where students develop employability has intensified within the last 20 years due to multiple, parallel national government-level initiatives; e.g. The Bologna Process (Sin & Neave, 2016), the

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UK's "Fulfilling Our Potential" white paper (Walker & Haines, 2016), and changes in the Australian HE environment (Bennett, 2019). This is important context for any study investigating student employability because this shift in the focus of HE has occurred relatively abruptly within the working life of many lecturers, and has left disagreement over how best to achieve the student "employability" agenda (Frankham, 2017; Sin et al., 2019).

"Employability" is a somewhat contested term (Sarkar et al., 2020; Yorke, 2006) and as a consequence can be defined in a number of ways. For example, Sarkar et al. (2016) suggest that employment rates might be used to measure (and therefore define) employability. However, as Yorke (2006) and Tymon (2013) explain, it is possible to be simultaneously employable and unemployed, which makes employment rates insufficient as a definition of employability. Key literature highlights at least four elements of "Employability": 1. disciplinary knowledge, 2. technical skills, 3. transferable skills, and 4. personal attributes (Suleman, 2016; York 2006). Even if we take this to be generally agreed, there is still fundamental discord within the sector. Industry and governmental bodies consistently elevate the importance of transferable skills and personal attributes (e.g. (Bennett & Richardson, 2016; Walker & Haines, 2016)), while lecturers most commonly focus curriculum design on disciplinary knowledge and technical skills (Cotronei-Baird, 2020; Lowden et al., 2011). Rich (2015) goes so far as to question whether the academics who design and teach the curriculum consider employability enhancement to be their responsibility. Other perspectives are even more extreme, suggesting that core elements of employability-related transferable skills and personal attributes (such as critical thinking and self-confidence) are not able to be developed within the current model of Higher Education (Arum & Roksa, 2011). While it is generally accepted that graduates will have developed transferable skills and personal attributes for employability during their degree, it has been argued these comprise an element of the Hidden Curriculum; where learning outcomes are not explicitly recognised by one or more of the stakeholders in the curriculum (Cotton et al., 2013; Cookeet al., 2021). This is important because maximal development (of skills, knowledge and attributes) requires both active recognition of goals and reflection on progress towards mastery (Biggs, 1985; Boud et al., 1985). Broad education theory would suggest that it is difficult to achieve a learning outcome without the instructor or learner being fully aware of what that outcome is.

In the geographical, earth, environmental and biological sciences, well-designed fieldwork represents a key pedagogical approach to incorporating active, experiential learning (France & Haigh, 2018; Scott et al., 2012) can develop employability-enhancing transferable skills alongside subject-specific knowledge and technical skills (Arrowsmith et al., 2011; Peacock & Bacon, 2018; Peasland et al., 2019). Academic staff involved in the design and delivery of fieldwork often value it highly as a pedagogic tool for delivering subject-specific skills and knowledge (Fuller et al., 2006; Mauchline et al., 2013; Maw et al., 2011). Fieldwork as a pedagogy has evolved considerably and become increasingly diverse during recent decades as educational theory and practice have evolved (France & Haigh, 2018); due to an increasing need to justify the costs of fieldwork to institutions; the opportunities presented by technological advances; and most recently, the restrictions imposed by the COVID-19 pandemic. Today, learning through fieldwork can include everything from

supervised and independent, multi-day residential trips in often exotic locations (e.g. Peasland et al., 2019) to single day and/or hyper-localised activities (even on university campuses) (e.g. Li et al., 2023; Peacock et al., 2018); as well as blended and wholly virtual fieldwork (e.g. Bos et al., 2022; Wright et al., 2023). Regardless of the modality, fieldwork is widely thought to help students contextualise their classroom learning through real-world encounters with their subject (Anđelković et al., 2018; Hovorka & Wolf, 2009; Maw et al., 2011; Scott et al., 2006; Stokes & Boyle, 2009) and to promote deeper learning of disciplinary concepts (Boyle et al., 2007; Fuller et al., 2006; Scott et al., 2012). In addition, because fieldwork often involves students working closely in groups with their peers (Henry & Murray, 2018; Stokes & Boyle, 2009), and offer opportunities for less-formal interactions between staff and students (Fuller et al., 2006), they can contribute to strengthened relationships amongst the student body and between students and staff. These myriad benefits mean that fieldwork is often considered an essential element of curriculum design in these fields despite the significant investment required to implement it.

In numerous studies, university teaching staff have also discussed skills development as a benefit of fieldwork provision (Kent et al., 1997; Mauchline et al., 2013; Scott et al., 2012, 2006; Stokes et al., 2011; Wall & Speake, 2012) and some link this explicitly to graduate employability (Fuller et al., 2006; Mauchline et al., 2013; Scott et al., 2006). It is more usual, however, for staff to emphasise the value of subject-specific technical skills rather than transferable skills (Scott et al., 2006; Stokes et al., 2011), which suggests that they may make an implicit assumption that students will seek a career directly related to their degree subject. Staff interviewed by Maw et al. (2011) rated subject-specific skills as more important than transferable skills and Stokes et al. (2011) found that staff infrequently suggested that fieldwork could enhance students' future prospects when asked about the usefulness of fieldwork. The current literature would suggest that it is unclear whether staff intend students to develop transferable skills through fieldwork or whether their development through field-based teaching is a beneficial side effect that may be acknowledged but is not purposefully integrated into the curriculum. However, this question has not been explicitly investigated in the fieldwork literature.

Wall and Speake (2012) suggest that, although staff recognise that fieldwork develops skills that might contribute to students' professional development, the link between skills and employability made by staff is somewhat implicit, and the link between fieldwork and employability is not always clearly recognised. Scott et al. (2006) suggest that staff recognise some benefits of fieldwork (e.g. deeper learning) implicitly as a "side effect" of delivering subject-specific material rather than making an explicit link between fieldwork and students' learning and development. Therefore, it is possible that staff recognise transferable skills development and enhanced employability as a side effect of learning through fieldwork rather than as a key aim or purpose. If there is in fact a disconnect between the full-range of benefits students can derive from fieldwork and staff perceptions of potential benefits, this would suggest that transferable skills development comprises part of the "Hidden Curriculum" of fieldwork (Cotton et al., 2013; Cookeet al., 2021; Maw et al., 2011). This would mean that there are specific pedagogies that could be employed to address this issue and therefore help maximise the benefits derived from fieldwork; which is a resource-intensive mode of teaching for students and staff. To explore these ideas in more detail we asked:

(1) Is there a bias in visibility of different types of employability-related benefits of fieldwork-based teaching evident in the perspectives of staff leading field trips, their course design materials, and the materials they distribute to students?
(2) Are students clearly informed about all of the skills that they might develop through fieldwork?

Methods

To explore the level to which staff intend their students to develop technical and transferable skills when undertaking fieldwork, we conducted interviews with tutors and examined text-based resources (formal university module specifications) outlining the espoused (planned) fieldwork curriculum (after Pearson and Hubball (2012)). To explore the level to which the opportunity for skills development was communicated to students during field-based learning (the enacted curriculum Pearson and Hubball (2012)) we examined the teaching materials provided to students in their course handbook, briefing materials or fieldwork-specific assessment guidelines.

Our study involved 12 field courses delivered by 12 members of teaching staff (five geographers, three geologists and four biologists) responsible for the delivery of field-based learning in undergraduate degree level Geography, Geology and Biology at a UK university. The interviewees had been involved in the organisation of field-based learning for between 22 years and 2 years (mean = 15 years, median = 16 years). The trips they had most recently organised and delivered spanned Level 4 (first-year undergraduate) to Level 6 (final-year undergraduate), and eight staff organised both local one-day field visits as well as at least one residential field course. The residential field courses staff had organised included destinations in the UK, mainland Europe and further afield (Asia, Africa and North and South America) although not all these destinations were discussed in detail in the interviews.

Interviews lasted between 43 minutes and 1 hour 28 minutes (mean = 58 minutes) and were audio-recorded. Five interviewees were female and seven were male, and all provided informed consent in line with the project's ethical approval (University of Hull, Faculty of Science and Engineering ethics committee approval code H010). Interviews were conducted and transcribed by the primary researcher and collated in NVivo qualitative analysis software (QSR International Pty Ltd. (2020) NVivo (released in March 2020)) for coding and analysis.

To give the interviews structure, the interview explored three broad areas:

(1) The interviewee's opinion of fieldwork and their field-based teaching experience.
(2) The main logistical considerations of the most complex field course they led.
(3) The intended objectives, outcomes, and structure of the most complex field course they led.

Each of these broad areas contained questions that were grounded in the literature concerning pedagogy for skills development and/or fieldwork, and questions related to other research foci that were part of the same wider project (and which are not reported here). For example, questions about whether field course content built upon students' previous learning assessed whether the field course was part of a spiral curriculum, which

might allow students to realise wider benefits of fieldwork such as transferable skill development (Harden, 1999). The questions were structured to move from the broad to the specific; for example, staff were asked what they thought the role of fieldwork was before being asked what the intended outcomes were for the students on their field course to see whether these included transferable skills or employability outcomes. Subsequently, interviewees were asked what skills students developed. This "interview funnel" approach (Newing et al., 2011) seeks to discern the factors most important to the interviewee and avoid leading them towards particular answers. The interview script was pilot tested with two members of the study population who were precluded from participating in the interviews because they were members of the research team. Both provided feedback that all questions were understandable and did not feel intrusive or difficult to answer. Even though the study population was constrained, it was sufficient because having reached 12 interviews it was clear to the interviewer that no new information relevant to the research questions would be forthcoming and so saturation was reached (Newing et al., 2011).

Interview transcripts, module specifications and teaching materials (student handbooks for eight field trips, briefing presentations for three, and assessment criteria for one) were subjected to thematic analysis to structure the analysis of the data. Before coding began, the materials were read closely as recommended by Nowell et al. (2017) to increase familiarity with the data and allow the recognition of common topics. The initial codes were generated inductively from interview transcripts, module specifications and handbooks by one of the authors and then final codes and themes were agreed after discussion by the research team. After initial coding, the codes were collated into themes. The themes were determined deductively. That is, they were defined in line with the research questions, which, in turn, had been generated from the literature. This deductive approach seeks to describe aspects of the data that are important in the context of the research questions (Braun & Clarke, 2006) and, consequently, may not describe the entirety of a data set. All the codes and themes identified were created as nodes in NVivo, which facilitated the analysis and allowed the identification of patterns of interest in the data and selection of quotations to illustrate the following results and discussion. In this paper quotations taken from interview transcripts have been edited to exclude trip locations or instruments and techniques specific to certain locations to maintain participant anonymity.

Results

The technical and transferable skills explicitly identified in interviews, in module specifications and in teaching materials are summarised in Table 1. Some of these skills are clearly disciplinary technical skills (e.g. species identification, mapping/GIS) and others are clearly transferable skills (e.g. time management, communication), but there are also a third set of skills that might be seen as transferable, but in context could be seen as disciplinary/technical. For example, written reporting might be seen as a transferable skill related to effective communication, but in the field-course context could relate to technical writing following a disciplinary convention/style. These are termed "hybrid skills".

Table 1. The transferable and technical skills explicitly identified in interviews, in programme specifications and in field-course handbooks. The table shows how many module specifications, handbooks and interviews each skill was explicitly stated in.

Skill type	Skills identified	Module specifications	Teaching materials	Interviews
Technical skills	Species Identification	4	4	2
	Field techniques	11	9	10
	Using specialist equipment or software	2	2	3
	Application of disciplinary knowledge	11	6	7
'Hybrid' skills	Analysis	11	4	6
	Critical analysis	9	4	1
	Oral presentation	9	1	4
	Project design and execution	9	5	8
	Written reporting	9	3	5
	Working safely and ethically	4	1	2
	Data collection	2	4	0
	Numeracy or statistics	2	2	2
Transferable skills	Study skills	1	0	0
	Time management	1	1	2
	Team or group work	5	2	9
	Organisation	0	0	3
	Independent work	0	0	3
	Adaptability	0	0	1
	Communication	0	0	1
	Problem solving	0	0	1

From Table 1 it is evident that technical and hybrid skills generally featured more prominently than transferable skills across all of the data available. Almost all of the module specifications identify both some kind of field technique (e.g. mapping, species identification, etc.) and the ability to apply disciplinary knowledge as a key outcome of the field course. These were also the two most common skills identified in the teaching materials. "Field techniques" particularly was the skill most commonly identified by the staff across all of the skills. Group work provides a clear exception to the pattern of greater awareness of disciplinary/technical skills; interestingly being the second most commonly identified skill by staff.

Almost every technical and hybrid skill was more likely to be present in the module specification than the interviews, while transferable skills were more often highlighted by staff in the interviews and not included in the module specification. More often than not, the teaching materials were the least likely to mention any given skill. Overall, more skills were identified in module specifications (90 instances) than in either teaching materials (49 instances) or interviews (61 instances), and the fewest skills were identified in the information most immediately available to students – the teaching materials. This was particularly true for hybrid skills, which featured strongly in module specifications (55), but substantially less so in teaching materials or interviews (24 and 28 respectively). Technical skills, in contrast, featured almost equally in module specifications (28), teaching materials and interviews (22 each).

From the interviews that were conducted, it was apparent that staff from all of the disciplinary areas included in our sample do believe that learning through fieldwork provides students with opportunities for the development of employability. However, the

focus tends to be employability in fields strongly aligned to the discipline and rarely employability in its broadest sense.

> to be a field geologist and work independently you need that training in field geology (Geologist)

> there is a lot of professional preparation for a lot of them, they're going to have to do [fieldwork] in non-ideal circumstances (Geographer)

> there's a really subject-specific employability skill set I'm trying to impart and if you design it using industrial methods . . . they can write them on their CV (Biologist)

Similarly, when transferable and hybrid skills outcomes of field courses were referred to either in the interviews or module resources, these were, more often than not, presented in the context of the discipline or industries aligned with it. For example, when discussing time management, two geologists stated:

> "can you . . . operate in a short time frame? Because one of the things companies will say to us is 'you often get a day to do this'" (Geologist)

> "I would say 'right this is your task and you've got until 2 o'clock' so if it's making a map of a square km I'd say 'right, well how much detail are you going to do it in? Are you going to spend three hours doing this little corner? You're not going to have a very good map'" (Geologist)

Other transferable or hybrid skills that were referred to in a disciplinary context included data collection and recording, analysis, numeracy and project design:

> note taking, actually something that's really, really challenging especially in the conditions that we had in [the field] is erm, keeping detailed notes and recording data (Biologist)

> analyse and evaluate complex geological, geographical, environmental social datasets. Where appropriate, select numerical approaches and techniques appropriate for the purpose. (Geography module specification)

> develop and practise project design to help prepare for the Honours stage dissertation (Geography teaching materials)

This should not be regarded as evidence that staff assume all students aspire to careers in disciplinary related industries, which is clearly not the case. For example, when discussing intended course outcomes, one geologist stated:

> a lot of it is about employability and getting them prepared for that sector if it's something that they want to do, some of it's about just trying to show them that that is an option for them . . . and it's been really nice the last couple of years we have had students from fairly small cohorts going into that industry

In spite of the fact that staff appear to be aware that not every student will go into an disciplinary-related industry, the transferable nature of the skills was acknowledged in a limited way by only four staff members.

> You might be required to give a presentation without slides at a job interview, for example, or as part of a meeting (Geography teaching materials)

> the final report if there's not much literature out there, you're providing the literature so how do you go about writing almost a little research paper because that might be something that you need to do in your job or in your subsequent academic career (Geologist)

Only one interviewee went further and acknowledged not only the transferable nature of some of the skills students might be expected to develop on their field course, but also recognised that participating in a field course might usefully prepare students for a career unrelated to their study discipline:

> depending on what they then decide to do with their future career, these generic transferable skills are equally important as possibly field-based, subject-specific skills. Because if they decide that they're gonna be a bank manager instead of [a biologist] they need good skills that will enable them to do it (Biologist)

This was the only instance in the interviews or module resources where it was explicitly acknowledged that students might seek a career unrelated to their discipline and that fieldwork could nevertheless contribute to these students' professional development. Despite this evidence that some staff acknowledged the transferable nature of some of the skills that students could develop, only two interviewees explicitly identified, like the quotation above, that the skills were "transferable", both of whom were biologists.

Three interviewees recognised that learning through fieldwork also has the potential to underpin the personal development of students outside of concepts directly related to disciplinary identity, knowledge, and career prospects. However, they often did so without being specific about the personal attributes that their field experience would develop, instead suggesting in general terms that the experience would contribute to the personal growth of their students. It is worth highlighting that there was no discernable mention of these "personal growth" type outcomes in the module specifications or the teaching materials. We suggest that staff are generally aware of the holistic opportunities afforded by field courses for student development, even if they cannot articulate them eloquently.

> there's all the other stuff they learn about themselves, erm, and . . . how they get on with other people and they learn a whole load about culture (Biologist)

> what I hope they're getting out of it . . . [are] all these kind of social skills and enjoy being in a different place (Geographer)

> I think the personal skills are really, really, really critical for, and that's, that's subject independent. You know, if you can survive two weeks . . . living cheek by jowl with other people you don't know very well it's quite a good skill to have you know. (Biologist)

Discussion

We sought to understand the extent to which the employability-enhancing benefits of fieldwork were intentionally integrated into field course design or whether they were considered a side-effect of fieldwork pedagogies. Most, but not all, of our data highlights that academic staff understand the role field courses can play in the development of employability enhancing skills. Albeit, the focus of course design materials and the staff interviews was very much upon the development of discipline-specific and/or technical skills, as opposed to transferable skills or personal attributes. Throughout the interviews

only one participant provided a clear acknowledgement of the idea that fieldwork can provide opportunities to develop student employability for a wide range of careers outside of those tied to the discipline (a sentiment not evident in any of the written materials available to students). This is a similar finding to other studies that have only considered staff perspectives (Mauchline et al., 2013; Scott et al., 2006; Stokes et al., 2011; Wall & Speake, 2012), but our study adds that this bias is even more prevalent in the information most immediately available to students – the teaching materials. Furthermore, these teaching materials are much less likely to mention any form of skills development than either the module specifications or the staff perspective interviews. The university teachers who participated in this study were positive about fieldwork and value it for its pedagogical and social benefits. Our participants have similar views and opinions therefore to the participants of the majority of, if not all, previously published studies that highlight the importance of fieldwork for placing the subject into context, learning technical skills, and improving group work (Kent et al., 1997; Mauchline et al., 2013; Maw et al., 2011; Scott et al., 2006; Wilson et al., 2017). This suggests that our study system is broadly representative of the wider community even though all participants worked for the same institution at the time of the interviews. We believe therefore that the findings developed from this case study may be generalised to the wider community. Our data support previous conclusions by (Cotton et al., 2013; Cookeet al., 2021) and Maw et al. (2011) that skills development, and transferable skills in particular, constitutes a hidden curriculum of fieldwork-based learning; a similar problem that has previously been identified within the broader context of Higher Education (Cotronei-Baird, 2020).

The position of transferable skills development as a hidden curriculum is problematic. It is likely to result in a lack of skills awareness on the part of both staff and students and consequently is likely to both limit the development of key employability-enhancing skills and the ability of students to articulate them when seeking employment (Cranmer, 2006; Wakeham, 2016). This is supported in our data not only by the limited presence of non-disciplinary skills development in our results but also the less definitive explanations of what transferable skills are or how they are developed. This situation is easily remedied, Sarkar et al. (2020) suggest that it is "crucial" that skills are explicitly stated in curriculum planning documents and Orón Semper and Blasco (2018) highlight that successful teaching is an activity that requires trust between students and staff, and that can be maximised by revealing a hidden curriculum. Similarly, Stokes et al. (2011) suggest that making explicit the purpose of a fieldwork activity will maximise the efficacy of this pedagogy. It is vital that there are clearly articulated skills-based outcomes within materials available to students that are re-visited during the taught sessions in a way that is transparent to students (and staff).

There are a number of specific pedagogies that can be employed in addition to just clearly articulating which skills are being developed when. It is important then that fieldwork is not only designed to be experiential and active, as the literature on best practice suggests (France & Haigh, 2018), but for it to also be inherently reflective. Field-based learning tasks that include reflection upon skills acquisition and personal development are likely to improve skills development and encourage students to fully recognise the holistic personal growth found in previous studies of fieldwork (Mello & Wattret, 2021; Scott et al., 2019). Activities that enable student autonomy and ownership of learning, through scaffolded active learning activities such as group to independent

project work, will support the development of transferable skills, the acquisition of subject knowledge and the development of technical skills (Kavannagh et al., 2014; Peasland et al., 2019; Sibthorp et al., 2008). The incorporation of an iterative or spiral curriculum will support deeper learning and the co-application of knowledge and skills (Fuller et al., 2006; Raath & Golightly, 2017; Scott et al., 2012). An additional benefit of designing a field course as an iterative experience is that as students become familiar with some aspect of their learning, such as concepts, locations or methods, the cognitive load of the activities decreases (Jolley et al., 2019; Peacock et al., 2018), which may in turn mean that students might find the fieldwork less taxing and have the cognitive space to develop additional skills (Peacock et al., 2018). In order for iterative fieldwork to be resource-efficient, educators could make use of repeated hyperlocalised formats to allow repeated exposure to fundamental fieldskills (see Peacock et al., 2018) and/or make use of blended learning approaches to help familiarise students with the location or activities during the in situ portion of the fieldwork (France & Haigh, 2018).

The ideas presented above represent a first-order approach to curriculum change (Levy, 1986), and example of an incremental evolution of current practice. Perhaps however it is worth considering what a second-order, or transformational change might look like (Levy, 1986). We suggest that second-order change could be achieved if educators were to reflect on what they really want the outcomes of a student completing a degree to be, to clearly articulate the future-facing impact of being a graduate of a discipline. We believe that this might be achieved if curriculum designers move away from a traditional content and outcomes based approach to a competence-based education model for curriculum design (Mori, 2023). Adopting a competence-based approach to education places student development on a par with disciplinary development and challenges educators to justify the value of educational experiences to the student, their future career, and place the discipline within important societal challenges in a wholly integrative way (Huxley-Binns et al., 2023). In a similar vein designing curricula around graduate competency profiles requires educators to ensure that teaching and assessment extends beyond understanding of disciplinary content (Spronken-Smith et al., 2016). Both of these approaches highlight the value of experiential and active pedagogies, such as fieldwork, but encourage educators to think about them as agents of student personal development first and as opportunities to better understand the discipline second. The question becomes, which should be the side-effect of any educational experience, developing life-long competencies and attributes, such as adaptability (Ito & Igano 2021), social responsibility (Mak et al., 2017), and digital literacy (France et al., 2016), or a deeper understanding of the subject?

Conclusion

In conclusion, it would appear that learning through fieldwork represents a microcosm of the wider discourse around employability in Higher Education, with lecturers being highly focused on teaching and articulating disciplinary competencies while transferable skills development remains an element of the Hidden Curriculum. Staff are fully aware of the integral nature of fieldwork in geographical, earth, environmental, and biological science degrees and recognise key opportunities to develop a deep understanding of disciplinary knowledge and technical skills key for

related industries. But within this study at least there was limited evidence within staff responses or their teaching materials that fieldwork can also be a purposefully designed opportunity to develop the transferable skills known to enhance graduate employability traits for the broadest range of career opportunities. This situation is easily remedied however, by ensuring that the full range of opportunities fieldwork can provide are articulated to students and that students have defined opportunities to reflect on these throughout their studies. We therefore recommend that academics designing programmes that involve learning through fieldwork take the time to clearly articulate to themselves, to one another and to their students, the employability enhancing transferable skill development that will be possible through participation in a field-course. These skills should be signposted during and after the field-course and students should have structured opportunities to reflect upon skills acquisition and skill usefulness as formal elements of field-course descriptors, supporting materials, and teaching practice.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the AdvanceHE.

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