

Progression in Secondary Fieldwork

Why should we think about, and plan for, progression in fieldwork?

Fieldwork is a central tenet of high quality geographical teaching and learning. Just as one might create curriculum maps for progress in core geographical theory and knowledge, so too should teachers chart the progress their students are making in a wide range of field techniques, as well as data presentation and analytical skills that complement the fieldwork data. Whilst reflecting on progression in fieldwork, it is worth remembering that fieldwork should never be viewed as a bolt-on or extra to classroom-based learning: time in the field and in the classroom should complement each other, and as such, progression in fieldwork skills needs to keep pace with the progression seen in the knowledge students have of place and their understanding of geographical theory.

One would not expect a student in year seven, with a limited experience of fieldwork and outdoor learning, as well as a limited understanding of core geographical concepts, to independently carry out a self-led enquiry. However, with the current system of assessment asking this of our A Level students, it is clear that educators need to build students' understanding around fieldwork in manageable steps. This will ensure greater success at GCSE and A Level and will better prepare students for enquiry based learning at tertiary level (both in geography related subjects and otherwise).

What challenges are there to mapping progression in fieldwork?

Students' abilities to access high quality fieldwork experiences vary considerably. A number of barriers continue to exist to students and geography departments, namely financial, and the points made in this piece in no way intend to further challenge teachers who are already facing difficulties in getting their students to experience fieldwork.

Reliably mapping student progression in fieldwork therefore depends on students consistently having access to fieldwork experiences. The introduction of mandatory numbers of fieldwork days at GCSE and A Level in 2016 set a precedent for experiences in those year groups. However, with a strong focus on 'fieldwork for assessment', students may not have access to the intermediary steps needed to ensure good progression in fieldwork skills and competencies more widely.

It is also the case that students are likely to have had very different fieldwork experiences in the primary phase making it difficult to establish a common starting point in year seven from which progress in fieldwork can be made. When planning for progressive fieldwork, one might consider discussing with colleagues in feeder schools the fieldwork opportunities students have already had. The following (drawing on the work of Julia Tanner¹) shows the kind of fieldwork experiences year six pupils may have commonly had before they enter the secondary phase:

- Some engagement with the enquiry process, through the writing of simple research questions and estimations of results.
- Use of simple data collection sheets that allow students to record data in tabular form.
- Experience of the school grounds and of the local area around the school.

¹ Tanner, J. (2021) Progression in geographical fieldwork experiences, *Primary Geography* 104, pp13-17

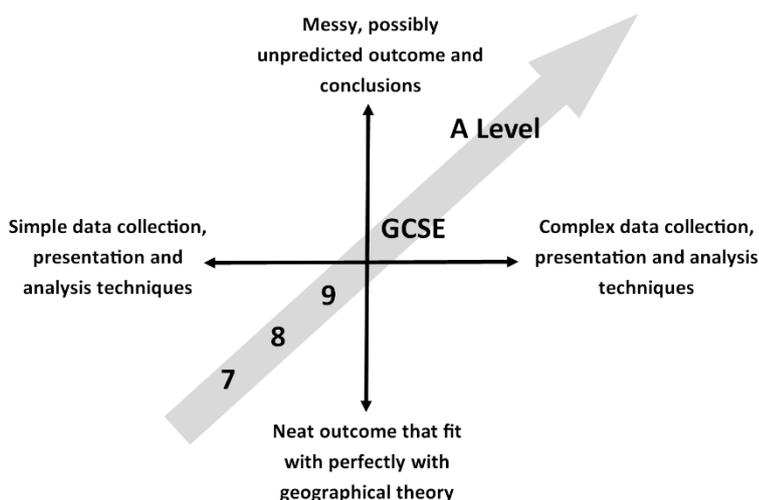
- Enquiry into areas such as
 - school sustainability
 - characteristics of residential areas
 - urban issues in local retail areas
 - uses (and misuses) of river environments
 - land use in parks, high streets etc
- Using techniques such as
 - Map reading and map creation
 - Annotating field sketches and photographs
 - Designing and carrying out questionnaires on peers
 - Drawing charts and graphs of quantitative data

What does progression in fieldwork look like?

By considering progression in geography fieldwork, educators are also asked to think about how the various building blocks of successful fieldwork might develop over time and become more challenging for students. Some of these building blocks are familiar to day-to-day classroom practice: the use of different levels of geographical language, the ability of students to connect different geographical ideas to create deeper meaning and the production of assessable materials that showcase learning are as familiar to classroom-based teaching and learning as they are to that taking place in the field. However, other building blocks of progress are unique to fieldwork such as working in unfamiliar locations, using new and different pieces of equipment, and working on a single enquiry route for an extended period of time.

Broadly, one would expect students to make progress in fieldwork along spectra concerned with

- the complexity of the task being undertaken (the field techniques being used, the equipment that students handle and the length of time of engagement) and
- the complexity of the geographical outcomes (the form of the 'write-up', the depth of geographical analysis and the 'messiness' of the real-world being encountered).



Teachers should view the following table as a representation of the 'minimum experience' one might aim to provide for students. In many cases, cohorts of students will confidently be able to go beyond these ideas and take on activities found in the key stage above their own. Equally, the pace of learning and development in students can vary hugely. Teachers should naturally adapt their own map of fieldwork progression to suit their cohorts.

In some cases techniques used by key stage three can also be used in key stage five – it would be wrong to think that certain enquiry questions, for example, are exclusively the learning territory for less experienced geographers. It is the case however, that older students would be expected to show greater depth of enquiry and use more advanced enquiry strategies. For example, there would be an added expectation that a simple technique be adapted to local conditions, that the results would be analysed in more complex ways and that conclusions would draw on multiple sources of (often conflicting) data.

	Key Stage 3	Key Stage 4	Key Stage 5
Locations Context and Examples	Relatively controlled environment where data is likely to match geographical theory. e.g. Within the school grounds or within the local area close to the school.	Environment provides data that mostly fits with geographical theory but may include a few variables that create a more interesting geographical picture. e.g. enquiries within the local area and if possible further afield in areas unfamiliar to students.	Environment provides data that is unknown or unlikely to replicate that strictly found in geographical theories. There will be opportunities to witness multiple interplaying geographical variables. e.g. techniques and skills can be practised on the school site; unfamiliar places should be used for wider enquiry skills; students choose their own field site for independent investigations.
Student v Teacher Agency	Enquiry process is heavily teacher-led in a defined structure that includes, pre and post fieldtrip support. Students are guided to make choices which are known to work well in the case of that particular piece of research.	Enquiry process is guided by the teacher in the pre and post fieldtrip phases with some choices being made by students as a peer group such as the exact criteria used in a survey.	Almost all of the enquiry is student-led with teachers playing a facilitating role in the pre fieldtrip phase. Students may engage with their peers to produce collaborative work or to share the workload in some tasks such as data collection.
Enquiry Context Role of enquiry and enquiry titles	Basic enquiry structure can be used though focus of assessment might be just one element, such as data presentation. Enquiry will have a clear title and focus based around one or two geographical contexts. ‘Who / When / What / Where...’ style title questions.	Students use the enquiry structure to guide their thinking through the research process. There is an emphasis on seeing the entire ‘enquiry journey’ as one complete (and cyclical) piece of work. Enquiry titles are likely to be focussed on a common issue. ‘How / Why...’ style title questions.	The enquiry structure plays a central role in student decision-making. As a narrative for research, the enquiry cycle runs in both directions through the study. For example, there is a recognition that the requirements of the data analysis stage rely on decisions made in the data collection stage. Enquiry title are based around topical, and socially and environmentally pertinent issues. ‘To what extent... and why...’ style title questions.

<p>Forms of Assessment</p>	<p>Assessment materials might include a scaffolded workbook, a video diary, group presentations or assemblies.</p>	<p>Assessment materials might include a scaffolded written report or annotated displays and maps.</p>	<p>Assessment materials might include a chaptered, written report or a panel presentation, similar in form to a thesis defence.</p>
<p>Data Collection Approaches, techniques and examples</p>	<p>Choices about data collection stem from knowledge of certain methods and are location-led. It is likely that one or two techniques might be used to satisfy the enquiry question.</p> <p>Data collection is primarily led by teachers using predefined methods. Techniques are based around observations and recording measurements and scores. Data collection techniques tend to yield objective data.</p> <p>Students might measure the dimensions of a river or be engaged with asking members of the public a pre-written questionnaire.</p>	<p>Choices about data collection stem from knowledge about certain methods and are location-led but thought is given to the types of data required. Three or four techniques are used to explore the enquiry question.</p> <p>Data collection is semi-led by teachers with some opportunities for students to work independently. Techniques are based around observations and the recording of measurements and scores but also include elements of data collection that yield subjective data.</p> <p>Students might decide how to measure the dimensions of a river in the field when presented with an assortment of data collection equipment. Collaboratively, as a class, students might design elements of a questionnaire before asking it to members of the public.</p>	<p>Choices about data collection stem from the data requirements of the whole investigation rather than known methods or the nature of the field site. Multiple techniques are used thoroughly and consistently to get the right data to answer the enquiry question.</p> <p>Students develop their own set of data collection techniques that are specifically designed to meet the needs of the data required to answer the enquiry question. Data collection techniques are location specific, include sampling techniques, and yield a combination of objective and subjective data and complement secondary data found through desk-based research.</p> <p>Students will do a recce of a river environment and design a time efficient set of data collection techniques to suit both the specific field sites and the overall purpose of the study. Students might design their own questionnaire from scratch or organise a focus group interview with different geographical agents. These would go through a pilot stage before going live.</p>

Data Presentation	There is a focus on techniques that utilise quantitative data (both discrete and continuous data) such as bar charts and pie charts, with support from teachers where necessary. Students start to create a range of maps with keys and present qualitative data in annotated photographs.	There is further focus on techniques that utilise quantitative data, though with added degrees of complexity such as profiles, kite diagrams, comparative graphs and radial graphs. Simple qualitative methods such as word clouds can be used. Students should start to explore the use of simple GIS to create mapped data.	Both quantitative and qualitative data is presented using equally sophisticated and student-designed methods. There should be a focus on integrated presentation methods such as sited bar charts on maps or photographs annotated with other forms of data presentation. Students become more confident in using GIS to produce more advanced maps of data.
Data Analysis	Students use manipulate primary data using simple techniques such as measures of central tendency and ratios.	Students might start to manipulate primary data using simple statistical tests such as Spearman's Rank Correlation Coefficient and measures of dispersion (such as interquartile ranges). Simple qualitative analyses may also feature such as conflict matrices.	Students use appropriate statistical tests for the nature of both the primary data collected in the field and any secondary data originating from desk-based research. Anomalies are challenged and dealt with appropriately. Students also use qualitative data analyses such as transcript coding and scoring.
Conclusions	Students draw on geographical concepts and theories previously studied in lesson immediately preceding the fieldtrip.	Students draw on topic-wide geographical concepts and theories, possibly with links to wider subject key concepts.	Students draw on subject-wide geographical concepts and theories, with references to key concepts at a variety of scales.
Critiques and Justifications	Students identify the strengths and weaknesses found in the data collection stage and can confidently discuss simple ideas such as bias.	Students can identify the strengths and weaknesses in the data collection phase as well as in the data presentation phase. Students should be able to confidently discuss high-level geographical reasoning for the different processes they employed as well as limitations.	Students identify strengths, weakness and future opportunities in the whole research process , including the nature of their initial enquiry question and research foci. Students feel confident in independently discussing values of reliability and validity in a variety of data sources and types.

Readers will notice that a full list of fieldwork activities has not been included in the above table. Whilst it is certainly the case that students at different key stages tend to engage with different fieldwork activities, it is a misnomer that certain fieldwork investigations suit certain key stages more than others. As discussed previously, no title or technique is exclusive to a key stage. Instead it should be the expectation that the surrounding structure and post-fieldwork data analysis and conclusions have to meet the higher academic expectations that come with the students increased geographical knowledge and understanding.

How can one start implementing a model of progressive fieldwork?

Teachers wishing to plan for fieldwork progression across their year groups need to consider a number of practical elements. As well as where, when and how fieldwork will take place, teachers need to firstly ensure that fieldwork sits firmly within the curriculum context of the topics being covered. Whilst it is tempting to only carry out fieldwork in the summer months when there might be less pressure on school timetables and more favourable weather, if the knowledge and understanding required for successful fieldwork is being taught in a different term, the progress that can be gained from the fieldwork experience itself becomes much harder to achieve.

Many teachers begin their fieldwork planning with an audit of the current provision and the impact it has on students, using a number of academic criteria as well as some linked to softer skills such as leadership, environmental stewardship and independent working. It is a likely outcome that teachers will want to keep many of the fieldwork opportunities they are currently able to offer students but wish to also change the emphasis placed on certain skills in the pre and post fieldtrip phases.

Many of the skills required to complete fieldwork enquiries to a high standard do not have to be taught exclusively in 'fieldwork lessons'. Areas of enquiry such as understanding sampling or data reliability can be taught in the ebb and flow of everyday classroom teaching as suitable data is probably being used all the time. Liaise with colleagues such as those in mathematics and science to find out when students might cover key concepts such as interquartile ranges or the use of controls in data collection. This can help teachers to plan which additional skill areas they may need to teach before placing those same skills in a fieldwork context.

If students use self-evaluation tools within geography, make sure these include opportunities for students to assess their own fieldwork skills and techniques. Understanding a framework for progress in fieldwork is not something beyond the comprehension of students and a student-friendly version of the above table can be used to help students gauge their current level as well as see how fieldwork activities will help them become more knowledgeable and skilful across the subject as a whole.

Finally, build a library of student work that celebrates the best of fieldwork in different year groups and key stages. Not only is this practically useful as new and less experienced colleagues join the department but it can also be a powerful tool to help students model their own fieldwork skills to the next progress level. Through this, and other media such as public displays and assemblies, students will be able to foresee the fieldwork journey they are on and hopefully engage more enthusiastically with the whole process.