Placing the geography curriculum at the heart of assessment practice

Introduction
The importance of a geographical education for young people is significant – it ensures they are well prepared to make sense of the world and can engage in contemporary debates about the geographical challenges that shape our societies and environments. As a geography teacher thinking about assessment, I start by asking what geography is to be learnt and what it means for my students to have learnt.

Assessment is an area of professional practice that is often constrained by the complexity of the professional landscapes we work in. For instance, school accountability measures have led some teachers to feel there is more time devoted to assessment and feedback and less to developing students’ geographical knowledge (Mitchell, 2017). Others are being obliged by line managers to reinvent ‘levels’ or bring GCSE grades into key stage 3. Such assessment systems might fit neatly into the school’s accountability structures and provide an illusion of ‘progress’, but they are flawed. When an assessment model becomes the progression model, the tool of measurement becomes the thing being measured and we end up with meaningless statements, where progress in geography is reduced to ‘moving from a grade 5 to a grade 6’.

Ofsted’s (2019) Education Inspection Framework appears to place an emphasis on subject specialists using assessment effectively to serve student learning, while also ensuring ‘leaders understand the limitations of assessment and do not use it in a way that creates unnecessary burdens for staff or learners’ (p. 11).

This article proposes two principles that might be useful to think through in relation to both formative and summative assessment. Ultimately, of course, this a work in progress, because any questions about curriculum, pedagogy and assessment of geography need to be continually revisited as part of the enriching dialogue we can have as a subject community. However, I have found these principles useful when thinking about assessment in geography, both as a classroom teacher and as leader of a geography subject community across a Trust.

1. Curriculum first
The curriculum as the progression model
We must start thinking about assessment with the question of what geography is to be learnt. As geography teachers, we ought to be driven by what we can define as the gold standard of geography education. This should be planned for and visible in the enacted curriculum. The assessment strategy follows, and should be designed to serve in relation to the curriculum rather than assessment structures determining what is taught. This chimes with Christodoulou’s (2017) conviction that ‘curriculum planning and its formative assessment should be structured around mastery of building blocks, not “retrofitted” to the test structure and requirements’.

Therefore we must consider the scope and interplay of knowledge within the geography curriculum, as geographical knowledge always sits in relation to other knowledge and makes future learning in geography possible. Geographical knowledge underpins our capacity to notice things, enabling us to be able to spot similarities and differences, and make comparisons between places and processes. As geography teachers, we play an important role as ‘chief resonance-manager’ (Counsell, 2000 p.68) by considering how our dialogue, and the explanations and texts we use resonate with what has gone before for our students. This is necessary because within learning the capacity to make sense of any new knowledge is dependent upon prior knowledge (Wood, 1988; Anderson, 1997); the accessibility of existing schema influences what is noticed when reading and listening (Rosch, 1975), which in turn influences the extent to which new content can be embraced. As teachers we have to be mindful of the ‘meaning-making’ that is possible for our students (Derry, 2014) and ensure that over time students have the breadth and depth of geographical knowledge that allows them to comprehend geographical texts, be affected by the geography around them, and be able to

Grace outlines the importance of using the geography curriculum as the progression model and decoupling formative and summative assessment.

Figure 1: A high-quality geography education helps young people make sense of the world. © Geographical Association/Mark Lupton

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call upon the apposite words to write and speak geographically. We can do this by being thorough in curriculum design.

Teachers need to consider carefully how geographical knowledge underpins accomplishment in the subject, such as how it can enable students to draw on their everyday knowledge through a geographical lens, shape their geographical thinking in the classroom, and empower them ‘to follow and participate in debates on significant local, national and global issues’ (Maude, 2016, p.75). To illustrate the scope of this form of curricular thinking, these are the kinds of curriculum orientated questions that might be posed when thinking about how students encounter and learn about the different dimensions of climate change across key stage 3. For example, ‘When do our students learn about how the impacts of climate change play out differently across the world and are exacerbated by other geographical issues? How do we illuminate the challenge of big (but uncertain) risks that are associated with climate change for ecosystems, food production and extreme weather? Do we do enough to highlight how complex and inter-related these challenges are? Do we do justice to illuminating the ethical dimensions that are inherent in how governments mitigate and adapt to the impacts of climate change?’ (Healy, 2019). Further, through the geography curriculum we want to consider how the young people in our classrooms ‘connect with the landscapes and environments around them and how this might mediate the way they envisage current and projected impacts of climate change affecting their everyday lives now and in the future’ (Healy, 2019).

If we treat the curriculum as the progression model (Fordham, 2017), we are able to say that if a student has learned the curriculum, they have made progress and by definition they have got better at geography. Getting better at geography means mastering specific content that can be both abstract and concrete, so by setting out those specifics we can meaningfully define progression.

The manifestation of geographical knowledge over time
Assessment can serve to ensure student security in the knowledge that they need to retain. They will be better able to do this if they have secure knowledge-building schemata (Rumelhart, 1980). Having the background knowledge at their fingertips allows students to quickly assimilate the new information. As a geography teacher, I need to consider at a micro- and macro-scale what the generative power of substantive knowledge is: ‘What enables students to think about X in this lesson, so that next lesson they can grasp Y?’ and ‘What am I choosing to assess in year 7 and how will I know the fruits of this in years 9 or 11?’

This is not about reducing a geography curriculum to passively received knowledge to be recalled, but rather about appreciating that in the end we are helping our students to, for example, grapple with and eventually grasp the uniqueness of place and the complexity of sustainable development.

Curriculum sequencing
While focussed curriculum planning might be split up into units of work, curriculum thinking should not be restrained by a topic-by-topic approach because we do not want students’ geographical knowledge to be solely tied to particular topics but want it to become generative across new contexts. This means that we need to think carefully about what knowledge students need to retain and retrieve in the longer term, and what parts of that knowledge we need to them to work with. Not all curriculum knowledge plays the same role for our students.

Curriculum sequencing matters. This is ultimately about how and why a certain section of the curriculum prepares students for future content, such that it has a proximal function to make the next stage possible and an ultimate function to do an enduring job, as Counsell (2018) highlights. In terms of curriculum thinking this means we need to think about the incidence, blend and interplay of different types of geographical content to serve as part of students’ wider geography curriculum journey. This is also why it is necessary to think about the key geographical concepts that students encounter repeatedly and how we could use this as an opportunity to ensure students develop more nuanced understandings of these concepts over time.

Many geography educationalists have stressed the importance of a holistic approach to geography curriculum planning (Renshaw and Wood, 2011; Rawding, 2014), so assessment practice should take account of this and not drive the atomisation of the geography curriculum.

2. Decoupling formative and summative assessment

Why decouple formative and summative assessment?

While there has been much discussion about one assessment serving a number of different purposes, under the premise of reducing the burden on teachers (e.g. Weeden, 2008), I would suggest that formative and summative assessments should be decoupled. Often the purposes of assessments can pull in different directions, so trying to use assessments for multiple purposes often leads to problems.
We need to recognise that formative assessment might look completely different to summative assessment, because becoming secure in the building blocks is not necessarily the same as the final performance (Christodoulou, 2017). Formative assessment does not merely anticipate the structure of summative questions, but rather allows us to check that students are secure in the small steps they need to take to be able to achieve in the final performance. We use formative assessment as a means of capturing useful and immediate information about what students have and have not secured, which allows us to be responsive in our teaching.

Making formative inferences from summative tests is inefficient and can be misleading. Public examinations require performance in complex operations which call up a range of smaller skills and items of knowledge. The identification of the missing pieces will elude us if we rely chiefly on question-level gap analysis to establish next steps for progress. While for each individual assessment we can make inferences from the comparison between students within the same year group, we cannot confidently make inferences from comparisons between subjects or about student improvement from a previous test. Summative assessments should sample from an ever-increasing knowledge domain. Sampling from the whole domain means we are drawing on curriculum content from beyond what has most recently been taught – term by term and year by year. For example, for key stage 3 summative assessments, year 8 students would be assessed on what they were taught in year 8 and year 7 (Figure 2).

**A mixed constitution of assessment**

The danger of assessments that are ‘almost morphing into mini-GCSEs’ (Mitchell, 2017, p. 243) at key stage 3 means that we appear to be wasting time showing year 7–9 students how to jump through exam hoops when we could be ensuring that they are secure across the domain that we are teaching. Any formative assessment system should recognise the underlying components that build security in composite tasks (Christodoulou, 2017). For example, ensuring students can see how their geographical knowledge fits into wider temporal and spatial scales before they need to deploy it in an enquiry outcome task.

Basing assessment purely on GCSE types of question and typical mark schemes is flawed. It puts composites before components, whereas we need to assess the building blocks as we go along.

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**Figure 3: Mixed constitution of assessment – formative assessment.**

<table>
<thead>
<tr>
<th>Type</th>
<th>Nature and purpose</th>
<th>Frequency</th>
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</thead>
<tbody>
<tr>
<td><strong>Maps and timeline tests</strong></td>
<td>Zoomed-in ‘topic’ maps and timelines from memory at strategic points to check recall of topic knowledge relevant to current topic. Approach informed by Uhlenwinkel (2014) and Counsell and Carr (2014)</td>
<td>Towards the end of each topic to ensure students have ‘fingertip’ knowledge before final outcome task</td>
</tr>
<tr>
<td></td>
<td>Zoomed out thematic/comparative maps and timelines from memory to check new and current knowledge being fitted into wider temporal and spatial scales. Approach informed by Uhlenwinkel (2014) and Counsell and Carr (2014)</td>
<td>Less frequent, at strategic points; to refresh transferable knowledge prior to needing it in a new topic</td>
</tr>
<tr>
<td><strong>Quick quizzes</strong></td>
<td>Written or oral, e.g. 5–10 questions; to check recall of key landforms, processes, dates, concepts that students need to have at their fingertips</td>
<td>Start of lesson, weekly, and informal</td>
</tr>
<tr>
<td><strong>Hinge questions</strong></td>
<td>One key question used to highlight the general direction of students’ learning. Once outcome ascertained, the class is divided to address areas identified. Developed from Wiliam’s (2011) approach to hinge questions, as used by Renshaw (2015)</td>
<td>As appropriate, typically within a lesson sequence</td>
</tr>
<tr>
<td><strong>Substantive concept checks</strong></td>
<td>Students write a short paragraph summarising an answer to a question about a substantive concept that has figured prominently during the lesson sequence, e.g. ‘Why is sustainable development necessary?’ ‘How is globalisation shaping…?’ ‘Why do cold environments have such low biodiversity?’ This tests the indirect manifestation of knowledge – how other layers of detailed knowledge flavour how students make and use substantive concepts in geographically grounded ways. These can also be designed to establish whether students hold any common misconceptions.</td>
<td>As needed, when useful for specific diagnostic purposes</td>
</tr>
<tr>
<td><strong>Fieldwork write-ups</strong></td>
<td>Students produce one significant part of a write-up (e.g. methods, analysis or evaluation)</td>
<td>Once for appropriate lesson sequences</td>
</tr>
<tr>
<td><strong>Geographical data analysis</strong></td>
<td>Students are given a set of geographical data from the topic to analyse. Graphs will be provided or produced by the students. Some data sets will be explored in ArcGIS Online</td>
<td>As appropriate, typically within a lesson sequence</td>
</tr>
<tr>
<td><strong>Enquiry/final outcome task</strong></td>
<td>Extended piece of writing (e.g. ‘Big Geography Question’) or another geographically meaningful outcome task, answered at the end of each lesson sequence. Assesses knowledge developed in that enquiry. Informed by Taylor (2008), Lofthouse (2011), Roberts (2013) and Rawding (2017). Assesses the capacity to deploy different levels of knowledge (topic/transferable/conceptual) to answer a geographical question with a conceptual focus. Mark schemes would be derived from departmental long- and medium-term planning for progress in conceptual and other kinds of knowledge</td>
<td>End of each enquiry (i.e. after around 6–12 lessons)</td>
</tr>
</tbody>
</table>

**Note:** The idea of a ‘mixed constitution’ of assessment was developed by Fordham (2013), which complements the notion of ‘mixed economy’ of assessment described in the GA’s (2014) ‘An assessment and progression framework for geography’. This mixed constitution of formative assessment within geography has been developed from the work of the University of Cambridge PGCE history mentors community, which held regular discussions on history assessment, led by Christine Counsell.
and this requires multiple forms of assessment. An example of what this might look like for formative assessment is illustrated in Figure 2, which visualises what Christodoulou’s (2017) ‘mastery of building blocks’ might mean for geography. Here, formative assessment is used diagnostically: to identify areas of concern, which inform short-term planning; and to inform revisions to next year’s curriculum plan. This model recognises that there are lots of different building blocks in geography. For example, students need to be able to draw on specific and locational detail with speed and accuracy, so we have map and timeline tests and quick quizzes. It is about making certain items non-negotiable for students and determining this on the basis of what these items will later make comprehensible. This is also about moving beyond the notion that merely covering something is enough as this leads to an ‘illusion of knowledge’ (Brown et al., 2014). Students also need to grasp complex concepts, like sustainable development and globalisation, so we ask them to write short paragraphs from which we can assess their geographical vocabulary and the quality of their explanations. We also pay attention to the role of fieldwork and how effectively students can engage with geographical data. And finally, we want students to be able to deploy this knowledge within geographically meaningful tasks.

Geography teachers have thought carefully about how to embed formative assessment within teaching sequences, as exemplified by the use of hinge questions (Renshaw, 2015) as a form of diagnostic assessment. To establish whether students understand the significance of freeze-thaw weathering in the formation of scree slopes, Renshaw asked “Where are you most likely to find scree slopes forming?” This a powerful example of how formative assessment can elicit the extent of students’ understanding and give teachers opportunities to ensure students are secure in their geographical learning.

References
All websites last accessed 29/11/2019.


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