

Think Piece – Geographical enquiry

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This paper is adapted from one of the 'Think Pieces' written as part of the GA's GTIP project with the Teacher Development Agency in 2008/9. The project intention was to develop geography materials for PGCE courses, to inform and to encourage reflection on a range of themes and issues in geography. In this Think Piece, Gill Davidson, formerly Senior Lecturer in Geographical Education at Oxford Brookes University and now an independent consultant, discusses issues related to the development of enquiry in the geography curriculum. She suggests how new teachers can inform their understanding and develop their use of enquiry in their teaching.

Introduction

Geographical enquiry is now firmly established in the geography curriculum, at least on paper. Despite having been given a prominent place in curriculum documents there is still evidence that it has not yet been fully adopted in all schools. Ofsted (2008) reported too much focus on learning content in geography, rather than developing skills for gathering and interpreting information, and lessons which limited spontaneity and creativity. The Action Plan for Geography (2006-11) sought to address these issues, and revisions to the curriculum provide increased opportunities for 'curriculum making' to develop more enquiry-based learning in geography.

What is geographical enquiry?

Despite an apparent consensus about the value of enquiry in geography, a number of authors (Davidson and Catling, 2000; Rawling, 2001 and Roberts, 1998) have reported some uncertainty among teachers of the meaning of enquiry. Such uncertainty can be explained by the variance of emphasis in curriculum documents and the values of different factions of the educational community. Roberts (2003, pp. 10-26) outlines in detail the development of enquiry in the geography curriculum and explores the legacy of different interpretations. Essentially, some interpretations emphasise enquiry as a set of skills used in discrete investigations as opposed to those who view enquiry as the whole approach to learning geography.

This dichotomy is particularly relevant in today's curriculum context. Lambert (2008) argues that there is a 'curriculum crisis' in schools and discusses the importance of school subjects as a basis for curriculum planning. He points out the dangers presented by the QCA's 2009 'big picture' of the curriculum, which he believes subjugates subject content and promotes a skills-based curriculum:

'Indeed, "skills" have become the new orthodoxy, buoyed up with the beguiling rhetoric of "learning to learn" and "personalisation"...' (Lambert, 2008a)

This emphasis on 'skills' provides both a threat and a promise for geographical enquiry. If the notion that 'enquiry' refers simply to a set of skills persists, then issues to do with the content of geography may not be addressed. There is, however, also an opportunity for geographers to celebrate ways in which geography can contribute to the development of a wide range of skills in order to promote the value of the subject.

There is no doubt that students who are involved in geographical enquiry will be developing essential skills and qualities for learning. In its broader sense, however, enquiry also involves pupils in the construction of geographical knowledge. There is general agreement that this implies an active approach to learning geography which encourages pupils to ask questions about real issues, to search for answers using a wide range of skills and information and to think critically about issues rather than passively accept the conclusions, research and opinion of others (Davidson, 2006; Naish et al, 2002).

A further dichotomy is identified by Rawling (2008):

'Some people think of enquiry as meaning open-ended activities in which students are independently discovering things for themselves; others see it ...as a tightly controlled set of training activities.' (p. 42)

In reality, geographical enquiry embraces a wide range of teaching and learning strategies, although Roberts (2006) points out that teachers need to be aware of opportunities to enable students to participate in important decisions about enquiry work. She provides a structure for analysing the extent to which students are enabled to participate in the construction of knowledge and the extent to which teachers control enquiry work (p. 96).

There is also some room for discussion as to whether it is desirable to have a consensus of meaning for enquiry among geographers. In the current context, teachers are being encouraged to respond to the needs and aspirations of their pupils and to provide challenging and stimulating learning opportunities that pupils can connect to in their own context.

'Enquiry is not something to be defined once and for all on paper. It is something to be developed in the classroom in particular school and curriculum contexts.' (Roberts, 2003 p. 25)

Why geographical enquiry?

It can be argued that we are in a new era of curriculum planning with teachers being urged to take more responsibility for constructing the curriculum and to justify their educational aims and purposes. The curriculum decisions which teachers make are based on what they consider worthwhile in education and what they value most. Morgan (2002) explores different versions of geography that have impacted upon the school curriculum. He outlines how in each version the learner is placed differently in relation to subject knowledge, their teacher and the state and how each produces different kinds of students with different kinds of abilities. Teachers' viewpoints about the value of geographical enquiry are embedded in their ideas and ideologies about what counts as 'good' geography. The three most compelling arguments for an enquiry approach to geographical learning are related to the three following areas.

1. Theories of Learning

Roberts (2003 pp. 27-33) explains important theories of learning that provide justification for geographical enquiry. For some time now 'constructivist' theory has provided geographers with the basis to develop pedagogies linked to enquiry. A constructivist view of learning recognises that students must be actively engaged in making sense of the world for themselves, they need to be able to connect new knowledge to what they already know and construct their own meanings.

2. The Nature of Geographical Knowledge

An enquiry approach to learning values pupils' own knowledge and unlocks what Allen and Massey (1995) refer to as individual 'geographical imagination'. Current knowledge is presented as contingent to be questioned and scrutinised rather than accepted as absolute reality. Existing knowledge of the world has been constructed by other people and, through careful scrutiny of this knowledge, pupils understand more about how knowledge is created.

3. Development of important skills

Geographical enquiry engages students in the development of a wide range of skills involved in the collection, analysis, interpretation and evaluation of information from a wide variety of sources. Enquiry embraces all of the 'essential' skills identified in Personal Learning Thinking Skills (PLTS) and includes the development of literacy and numeracy. Most importantly, through enquiry students should be taught to look at any information critically and to ask questions about it. There is, however, a surprising lack of research into the value of enquiry as a pedagogic strategy in geography.

Why not geographical enquiry?

As noted earlier, geographical enquiry is not yet a strong feature of practice in many schools. One possible reason for this is that since the mid-1990s government policy has sought to inform teachers not only what to teach but also how to teach. Pressure on schools to adopt certain practices has been led by central definitions for excellence, efficiency and effectiveness. Adams (2008) explores how this process has led to a restrictive pedagogy where teaching has become the deployment of technical skills in a manner that can be observed and judged. Adams (2008) states,

'Within classrooms this reductionist project points teacher and pupil attention to the articulation of clear and observable outcomes. Attendant learning-teaching interactions are thus designed to maximise the probability that such outcomes will be attained.' (p. 379)

Ofsted (2008) noted that it is not uncommon to see pupils in geography classrooms copying out objectives at the start of lessons with 'little care or thought' and that these objectives usually relate to the content of the lesson. Such practice is contrary to the enquiry process where what is learned is generated by the pupils asking questions, exploring ideas and developing their own thinking. There is evidence in schools of professional confusion, as teachers may want to implement more creative and enquiry-based teaching and learning episodes, but they are restricted by the more dominant narrative of school policies (Davidson, 2006).

What do we enquire about?

The 2014 secondary curriculum is intended to be much less prescriptive in terms of content, giving teachers the freedom to teach more relevant, engaging and topical geography which relates to pupils' own lived experiences. It is not within the scope of this paper to discuss wider issues relating to the nature of geographical knowledge (but see Morgan and Lambert, 2005; Firth, 2007 and Biddulph and Firth's 2008 Think Piece on Fantastic Geographies). New teachers should be able to justify the focus of enquiry and have considered its 'geographical significance' (Taylor and Catling 2006) and significance to the pupils being taught.

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What questions should we ask?

Questions are an important feature of any lesson, as outlined by Phil Wood in his Think Piece on Questioning. In many lessons, schemes of work and textbooks, questions are used more as content headings than as genuine enquiry. There is little difference in telling pupils what they are going to learn, e.g. to know what an earthquake is, from telling them a question they are going to answer, e.g. what is an earthquake? The key is that pupils should see a point to asking the question and ideally have raised it themselves.

Roberts (2006) suggests that what makes an enquiry geographical is not only what is being investigated but the kinds of questions that are being asked. The Geography 16-19 Project 'route to enquiry' was based upon a hierarchy of questions designed to help teachers structure pupils' learning by following through the steps of description, analysis, explanation, evaluation and decision making. The questions identified in the 2000 National Curriculum for Geography were based around this structure. These questions provide the broad framework within which to ask more focused questions about specific issues.

The *KS3 Geography Teachers' Toolkit* series of books (Kinder and Widdowson 2008) is based around enquiry questions. Kinder (2008) explains the criteria for the selection of enquiry questions and suggests that one way to consider the strength of a question is to ask: 'Would a geographer answer this question more thoughtfully than a specialist from any other discipline?' (p. 101). Roberts (2003) explains that 'good' questions' are those that really probe an issue, are specific to what is being studied and are capable of generating many sub-questions from the students (p. 40). Crucially for the development of enquiry, teachers must be aware of the cognitive demands of questions to help pupils learn how to structure their own enquiries rather than ask random questions.

What are the essential aspects of geographical enquiry?

Roberts (2003) provides a framework for learning through enquiry (p 44) that can be used for one lesson or a unit of work. She outlines four essential aspects which need to be considered when planning enquiry work. These are:

1. Creating a 'need to know'
2. Using data
3. Making sense
4. Reflecting on learning

Let us go through these points in more depth.

1. Davidson and Catling (2000) claim that the starting point for any enquiry work should be a stimulus. The purpose of a stimulus is to raise interest and curiosity in the topic and to provoke geographical questions. A wide range of stimulus can be used including photographs, video, music, fiction, poems games, cartoons and more. Chris Durbin's Model for Geographical Enquiry suggests that stimulus can be surprising, emotional, moving, a mystery, a conundrum, a paradox, fun, dramatic, poorly done or controversial. The essential function of a stimulus is to engage the pupils with the topic and generate a 'need to know' so that there is a purpose for an enquiry. Davidson (2006) provides some examples of lesson beginnings that have engaged pupils and generated an overall enquiry question which can then be structured into a sequence of key questions to provide the basis for the next stage of collecting and using data. Davidson (2002) offers a model for planning enquiry arising from a stimulus.

2. A wide range of data can be used as evidence in a geographical enquiry. Students can find data for themselves and develop their research skills, they can collect primary data through fieldwork or they can be presented with data by the teacher to interrogate. It is important that students learn to view data critically and to ask questions relating to the source, the author, the purpose, the motives, the intended audience, and the style and presentation of the data. They should learn to distinguish between relevant and irrelevant data and detect bias and spin in the information.
3. Learning is essentially a meaning-making process (Hughes, 2006). Once students have collected and interrogated relevant information, the key to enquiry is to use it to construct geographical knowledge and develop their personal understanding. Roberts (2003) reminds us that:
'Enquiry is not simply about finding information to answer questions; it is about developing understanding.' (p. 43)

Students make 'personal' sense of information by doing something with it. This involves looking for relationships and making connections between their existing knowledge and new information. Essentially this must be an 'active' process and involves a wide range of activities. Leat (1998), Nicols (2001) and Taylor (2004) all provide examples of strategies to encourage thinking, to challenge pupils' existing ideas and support the construction of new geographical knowledge.

4. Reflection is an important part of enquiry and involves giving consideration to not only what has been learned but the way in which it has been learned. Ofsted (2008) reported that the plenary stage remains weak in geography lessons and that it is often shortened or used by the teacher merely to summarise the lesson content. Reflecting on what has been learned involves asking critical questions about the enquiry topic itself, the data and the way in which the enquiry was conducted. Metacognition is a term used to mean an awareness of one's own thinking (Leat 1997) and involves drawing out of the experience a more general explicit understanding of the processes used in learning. Claxton (2002) explains that the skills and dispositions of meta-learning can be cultivated by the teacher asking persistent questions such as, 'How did you go about finding that out?'. Hoult and Ellis (2008) suggest that in order to generate effective reflection and make new meaning, attention needs to be given to the learner's emotions:
'It is only when learners are enabled to attend to their own feelings... that the reflective process can develop and generate new perspectives on their experience and a readiness to apply these to a new experience.' (pp. 144).

Rawling (2008) offers guidance on how to plan for enquiry in Key Stage 3 (pp. 41-45). She reminds us that enquiry incorporates a wide range of teaching and learning strategies which range from those which are tightly controlled by the teacher to those where students carry out independent work. The key to effective enquiry is that teachers are able to organise and develop an appropriate range of learning experiences that meet the needs of their students, stimulate interest and curiosity, and develop geographical understanding.

Final thoughts

As students start their A Level courses, the traits that teachers prize the most are those linked to independent learning. At the heart of this form of learning is the ability of students to question their own learning, their level of understanding, and how they might go forward in that learning. However, such a critical capacity can only develop if students can ask the pertinent questions at the correct times. Questioning is not a skill that we just inherit, we need to develop it through trial and error. One way of achieving this is to have questioning modelled for us by others who are excellent in their use – our teachers. However, we also need the space to develop our own skills.

The geography classroom is an ideal environment for developing the use of this skill, and it is therefore crucial that teachers not only learn how to pose their own questions to greatest effect, but also guide and support students in developing their own enquiries about the world around them. As Postman argues:

'Nothing can be more basic than learning how to ask productive questions' (Postman (1979), in Morgan and Saxton (1991), p. 3)

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