

Think Piece

Geographical Enquiry

SOME ACTIVITIES FOR PGCE STUDENTS

It is difficult to isolate 'enquiry' as a topic for study as it is, in my view, a whole approach to teaching and learning geography. The fact that it is not as firmly established in schools as it might be means that those who are learning to teach do not always witness consistent examples of good practice. Sometimes they are limited in their own practice by school policies such as those which insist on writing 'objectives' on the board prior to the start of the lesson. It is therefore important that their practice is backed up with sound theoretical ideas. Below are some activities which can contribute to their understanding and practice of enquiry. These are accompanied by a [PowerPoint presentation](#) referred to at various points.

NB. Some photographs have been removed from the original PowerPoint presentation because of copyright issues. Tutors could add their own photographs to the presentation to add impact.

Activity One: What is 'good' geography?

Towards the beginning of a PGCE course students examine their ideas about the nature of geography and how it should be taught. There are different 'versions' of what counts as 'good' geography which can be explored and analysed. These represent different ideas about the role of enquiry in geography. One approach might be:

Instructions

Read: *Morgan, J (2002) Constructing School Geographies in Smith, M. Teaching Geography in Secondary Schools. London: Routledge Falmer*

Summarise the characteristics of four versions of geography; geography as skills, geography as cultural heritage, geography as personal growth, geography as critical literacy.

Role play different characters such as – employer, environmentalist, Conservative politician, Labour politician, educationalist, geography academic, a member of the National Trust, trade unionist, Marxist. Prepare a short speech for a character explaining their views of what is important geographical knowledge, skills and teaching and learning strategies.

Summarise: Students record their own 'version' of geography

Review and discuss:

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What counts as geographical knowledge?

How important are skills?

What approaches to teaching and learning should be adopted?

Students should examine curriculum documents to see if they can identify any dominant 'versions' of geography. In particular they can annotate the new National Curriculum to show what they believe to be the key features. This should include a detailed look at what is said about 'enquiry' and discuss ideas of enquiry as skills or enquiry as a whole approach to geographical learning?

Activity Two: Why do Enquiry?

For this activity students should work in groups. The focus is to explore the arguments for developing enquiry in the geography curriculum with particular attention to KS3. Students can be provided with relevant information but should be encouraged to find further evidence themselves.

Instructions

Prepare a PowerPoint presentation for a group of teachers to try and persuade them to develop more geographical enquiry in Key Stage 3.

The teachers are sceptical about the educational value of enquiry in geography and teach quite traditionally with an emphasis upon factual knowledge. All of them are losing numbers of pupils opting for geography but they are still attaining good examination results at GCSE and A level. They are concerned about curriculum coverage, content and losing control of their classes.

Your presentation should try to convince them that they need to change their current practices. You do not need to tell them how to change, just why.

Your presentation might include evidence from, current trends in the pupil choices, pupils' opinions of geography, theories of learning, national curriculum statements and requirements and Ofsted reports.

Some Evidence:

Biddulph, M. & Adey, K. (2003) 'Perceptions v. reality: pupils' experiences of learning in history and geography at key stage 4', *The Curriculum Journal*, 14, 3, pp. 291-303.

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Biddulph, M., & Adey, K. (2004) Pupil Perceptions of Effective Teaching and Subject Relevance in history and geography at Key Stage 3, *Research in Education*, 71, pp. 1-8.

Accessible at: <http://www.manchesteruniversitypress.co.uk/uploads/docs/710001.pdf> (accessed 15.1.09)

Roberts, M., (2003) *Learning Through Enquiry*. Sheffield: Geographical Association.

Weeden, P. (2007) Students' Perceptions of Geography: Decision Making at age 14, *Geography*, 92, 1, pp. 62-73.

Ofsted (2008) *Geography in Schools: Changing Practice*. London: Ofsted
www.ofsted.gov.uk/publications/070044 (slides 1 to 4)

QCA (2008) Geography National Curriculum <http://curriculum.qca.org.uk/key-stages-3-and4/subjects/geography/index.aspx>

Power Point slides 1 to 9 can be used to summarise some key points relating to the value of Enquiry.

Slide 1 and 2 show criticisms of geography made by pupils reported by Ofsted.

Slide 3 summarises changes to the curriculum which will address these issues.

Slides 4-6 summarise constructivist theory and the importance of active learning.

Slides 7-9 provide the basis for a discussion on the nature of geographical knowledge

Activity Three: Planning For Enquiry

The following are a sequence of activities which can help students plan for enquiry. These can be used as a sequence in a single training day or expanded so that any section can be studied in more depth.

The activities assume that they have knowledge and understanding of constructivist theory and the role of language in learning. They should also have some knowledge of Bloom's taxonomy of educational objectives and how these relate to different types of geographical questions.

a. What should we enquire into?

In order to increase relevance in the curriculum, students should think about the geographical significance of the topics they choose to teach and also their relevance to pupils' own lives.

Read: Taylor, L., & Catling, S. (2006) Geographical Significance: a useful concept? *Teaching Geography*, 31, 3, pp. 122-125.

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Slides 10 – 14 can be used as stimulus for discussion on geographical significance. Further examples can be added.

b. Stages in Enquiry

Students should be familiar with the four essential aspects of enquiry work as identified by Roberts (2003) p44 and how these relate to ideas about learning and cognitive challenge.

Slides 15 – 18 can be used to remind students of these aspects.

c. Developing 'A Need to Know'

Ofsted (2008) have criticised lesson beginnings in geography (slide 19). Lesson beginning should include 'a need to know' (slide 20). Present the group with a range of stimulus materials. From a discussion identify possible enquiry questions. In this instance 'enquiry questions' are ones which are used to frame an investigation. For instance 'Should I be bothered about climate change?' From this, a series of key questions can be identified to structure an investigation using the 'route to enquiry' as a framework. Students should recognise the cognitive demands of the questions.

Some examples of different types of stimulus are shown on slides 21 – 28. An enquiry question has been identified from each stimulus and a sequence of key questions to structure a possible investigation.

Consideration should be given to what makes a good enquiry question. Students can draw up criteria. An enquiry and a sequence of key questions can then be used to structure a scheme of work or a lesson plan. Slide 29 shows an example of the beginning of a scheme of work on climate change.

NB An interesting paper on what makes a good enquiry questions, but in relation to teaching history through enquiry, is by Riley (1999, in *Teaching History*, 99). It can be downloaded here: http://www.history.org.uk/resources/secondary_resource_1550_8.html.

Slides 30 – 32 can be used to practise developing enquiry questions. Students should discuss how they might use the resource as a stimulus, what overall enquiry question might be appropriate and a sequence of key questions to structure an investigation. They can then devise schemes of work from the key questions.

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Students should then find their own examples of stimulus materials and present them to the group with suggestions for how an enquiry might proceed.

d. Data for investigation

It is anticipated that students will already have experience of evaluating and using different types of teaching resources and information used in geography. It is important that pupils should also be taught these skills. Draw up a checklist of questions that should be asked about resources.

Slide 33 and 34 gives two examples to remind students of the need to question data sources.

Rogue data – introduce the idea of rogue data. This stresses the importance of pupils actually understanding and being able to interpret the data they are given.

Spin – offer a resource with a particular bias. Ask students to rewrite the resource with a different spin. Discuss how this might be used in the classroom.

e. Making Sense

In order to ‘make sense’ of information you must do something with it. When planning the body of an enquiry, students need to ensure that pupils are not simply receiving and reproducing information but are transforming it and using it to develop their understanding. There are many examples in geography of active learning strategies which students are likely to be familiar with, in particular the Thinking Skills strategies.

This exercise is simply a reminder of the importance of ‘active’ strategies in enquiry.

Staff at Waingels College in Reading have developed a set of actions which they use to remind teachers of the need to use ‘active learning’ strategies. They refer to these as the Magenta Principles (see slide 35)

Allocate different Magenta principles to groups of students. For a particular ‘enquiry’ topic students should devise activities for pupils based around the principles.

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Examples of activities that can be applied to geography can be found in Hughes (2006) pages 153 – 169.

f. An Enquiry in Practice

In June 2008 my students set me a challenge to produce and teach a lesson which illustrated the approach to geographical enquiry which I had advocated to them. The lesson was taught to a group of mixed ability Year 7 pupils at a local school and filmed by the media department who produced a 15 min summary of the lesson. Students observed the lesson, then evaluated it, modified it and taught it to other groups.

The film can be downloaded from: <http://www.divshare.com/download/6221507-e4a>

The film can be used to discuss various aspects of enquiry with students and should be accompanied with the handout, [Who Killed Ratty?](#). This explains the sequence of the lesson. (It should be taken into account that the lesson was a 'one off' and taught by someone not their normal teacher.)

Watch the film and then discuss whether it represents a good example of geographical enquiry.

Evaluation of the lesson

Consider whether you think the lesson achieved the following:

- Pupils understood the purpose of the lesson.
- The beginning of the lesson stimulated interest and curiosity.
- There was a connection made to pupils' lives.
- The enquiry question was clearly established.
- There was a 'need to know'.
- The relevance of the topic was clear.
- Pupils were using a range of relevant information.
- Pupils were 'making sense' of information for themselves.
- Pupils were developing and using a range of enquiry skills.
- Pupils were developing geographical understanding.
- There were good opportunities for the teacher to assess pupils' understanding.
- Pupils were encouraged to reflect on their learning
- Pupils were encouraged to respond on an emotional level.

Students should develop their own lessons to reflect the features above.

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Activity Four: Observing lessons

Throughout the PGCE course students will have many opportunities to observe lessons. Focused observation can help to develop their understanding of enquiry below are two examples. These can be applied to their own lessons or those taught by others.

The Participation Dimension

Roberts (2006) produced a framework for analysing the extent to which teachers control enquiry work and the extent to which students are enabled to participate in the construction of geographical knowledge.

Students can use this table when observing lessons to analyse student participation.

The participation dimension in Geographical Enquiry (From Roberts, 2006, p. 96) :

	Closed	Framed	Negotiated
Content	Focus of enquiry chosen by teacher	Focus of enquiry chosen by students within theme (e.g. choosing which volcano to study)	Student chooses focus of enquiry (e.g. choosing which LEDC to investigate)
Questions	Enquiry questions and sub-questions chosen by teacher	Teacher devises activities to encourage students to identify questions or sub-questions	Students devise questions and plan how to investigate them.
Data	All data chosen by teacher. Data presented as authoritative evidence.	Teacher provides variety of resources from which students select data using explicit criteria. Students encouraged to question data.	Students search for sources of data and select relevant data from sources in and out of school Students encouraged to be critical of data.
Making sense of data	Activities devised by teacher to achieve pre-determined objectives. Students follow instructions.	Students introduced to different techniques and conceptual frameworks and learn to use them selectively. Students may reach different conclusions.	Students choose their own methods of interpretation and analysis. Students reach their own conclusions and make their own judgements about the issue.
Summary	The teacher controls the construction of knowledge by making all decisions about data, activities and conclusions.	The teacher inducts students into the ways in which geographical knowledge is constructed. Students are made aware of choices and are encouraged to be critical.	Students are enabled, with teacher guidance, to investigate questions of interest to themselves and to be able to evaluate their investigation critically.

Students can use this table when observing lessons to analyse student participation.

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Assessing the Teaching- Learning Balance

The focus of observation is to analyse the balance in a lesson between pupils simply receiving information and making sense of information.

We can make graphs that show the pattern of activity during a lesson. Download [Lesson Activity Graphs](#).

Watch a lesson and pause every 5mins to reflect upon whether the emphasis was on pupils receiving information or making sense of it. Award marks out of 10 to reflect the balance between the two and record them on to a graph. (Figure 1).

A completed graph can then be analysed to discuss the pattern of activity in a lesson and whether there are any changes that can be made to afford more opportunities for active learning.

Discuss the pattern of activity of the graph to the right (Figure 2). What does it tell you about the emphasis of the lesson observed?

References

For full references see <http://www.geography.org.uk/projects/gtip/thinkpieces/geographicalenquiry>