

Critical thinking and global learning

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One of the aims of the Global Learning Programme (GLP, 2014) is 'to stimulate critical thinking about global issues at both whole-school and pupil level'. The word 'critical' is used widely in relation to education but what does it mean? Critical thinking is generally advocated as a good thing, but why? What is the difference between critical thinking and critical pedagogy? How can you develop the geography curriculum and classroom practice to promote criticality? And why is critical thinking particularly relevant to global learning? This article sets out to address these questions and to provide some guidelines for planning units of work and classroom practice.

Who has advocated critical thinking and why?

Critical thinking has been advocated internationally by three projects that argued that, in order to meet the needs of the 21st century, students needed to develop a range of skills including critical thinking. All three projects associated critical thinking with using and evaluating information from a wide range of sources, including ICT, and with problem solving. Partnership for 21st Century Skills (www.p21.org), based in the USA, argued that students needed 21st century skills in order 'to succeed as effective citizens, workers and leaders' in 'the new global economy' (Partnership for 21st Century Skills). Assessment and Teaching of 21st Century Skills an international project sponsored by Microsoft, and based in Australia, argued that students needed them 'for living and working in an information-age society and to prepare students to be successful in the work force and as global citizens, (ATC21S). The Organisation for Economic Cooperation and Development (OECD), which has 30 country members, argued that 'today's labour force has to be equipped with the set of skills and competencies which are suited to the knowledge economies' (OECD, 2009, p. 5). OECD thought that these skills should be incorporated into national educational standards and enforced by governments. All three projects, in advocating 21st century skills, emphasised the needs of the economy, the needs of employers, the future needs of students as workers and citizens, and the role of education in developing them.

Critical thinking is advocated by universities for a different reason; they consider it to be at the heart of academic study. Academic knowledge is generated through debate and argument, through the reasoned use of evidence. Academics build on the work of others by evaluating it and then adding their own contributions to it. They expect, in turn, for their own work to be critically examined. In this way, all knowledge is

regarded as provisional and contestable, open to critical scrutiny. Universities want students to take nothing for granted, to be able to evaluate what is presented to them and develop their own reasoned arguments. For universities, critical thinking is about systematic, disciplined, rational and reasoned thought. It is a way of thinking about knowledge, rather than one definable skill.

Critical thinking is also widely advocated at school level, both for academic reasons and for students' future lives. One of the aims of Australia's Geography National Curriculum is 'to ensure that students develop the capacity to be competent, critical and creative users of geographical inquiry, methods and skills' (ACARA, 2012). The New Zealand Geography National Curriculum states that it is no longer sufficient for students to merely acquire knowledge and master skills: 'they need opportunities to develop their capability as users of knowledge and skills in wide ranging contexts now and in the future'. It wants students to use 'creative, critical and metacognitive processes to make sense of information, ideas and experiences'.

In England, both the new GCSE and A level examinations require students to think critically. GCSE (DfE, 2014a) requires students to develop the ability to:

- Identify questions and sequences of enquiry, to write descriptively, analytically and critically, to communicate their ideas effectively, to develop an extended written argument and to draw well-evidenced and informed conclusions about geographical questions and issues. (p. 6)
- Reflect critically on fieldwork data, methods used and conclusions drawn and knowledge gained. (p. 8)

The new criteria for A level geography (DfE, 2014b) provide guidelines for examination boards:

- The content should enable students to be inspired by their geographical understanding, to engage critically with real world issues and places, and to apply their geographical knowledge, theory and skills to the world around them. (p. 3)
- Develop as critical and reflective learners, able to articulate opinions, suggest relevant new ideas, and provide evidenced argument in a range of situations. (p. 4)
- Give particular weight to qualitative approaches involving representing place and to analysing critically the impacts of different media on place meanings and perceptions (one of several options for studying place). (p. 10)

Margaret examines what is meant by critical thinking and why it is particularly relevant to global learning.



Figure 1: These students are engaged in fieldwork in the Lake District. Critical enquiry is an integral part of thinking like a geographer and it is an essential part of investigative fieldwork. **Photo:** John Lyon.

- Undertake informed and critical questioning of data sources, analytical methodologies, data reporting and presentation, including the ability to identify sources of error in data and to identify the misuse of data. (p. 12)
- Demonstrate the ability to interrogate and critically examine field data in order to comment on its accuracy, and/or the extent to which it is representative, and use the experience to extend geographical understanding. (p. 14)

‘Critical’ in geography curriculum documents is related to questioning, evidence, analysis and argument, all elements of geographical enquiry and investigative fieldwork (Figure 1). In these documents critical enquiry is about making sense. It is an integral part of thinking like a geographer.

What are the characteristics of critical thinking?

I have used the lists of 21st century skills, university websites and the curriculum documents cited above to identify some of the characteristics of critical thinking that apply to school geography. This could be used as a checklist.

- Being inquisitive and asking good questions
- Judging the appropriateness and value of sources of geographical information
- Evaluating geographical data as evidence
- Distinguishing between fact and opinion
- Evaluating arguments and reasoning in what is presented
- Developing reasoned arguments based on evidence
- Probing assumptions
- Identifying the point of view or perspective
- Assessing the importance and significance of the ideas presented
- Evaluating conclusions and generalisations
- Justifying conclusions using evidence and reasoned arguments

Critical thinking incorporates what I think of as the 3Rs of disciplined thinking: rigour, rationality and reasoning.

What is critical pedagogy?

The word ‘critical’ is also used in the term ‘critical pedagogy’. Whereas critical thinking encourages an approach to education underpinned by a commitment to reasoned rationality, critical pedagogy is concerned with the potential emancipatory power of reasoned thinking and is underpinned by a commitment to equality and social justice. This meaning of criticality is relevant to the Global Learning Programme as two of its five aims refer to social justice. The GLP aims to:

- Help young people understand their role in a globally interdependent world and explore strategies by which they can make it more just and sustainable
- Enable teachers to move pupils from a charity mentality to a social justice mentality (GLP, 2014).

The following characteristics of critical pedagogy are relevant to global learning in geography and could be used as a checklist:

- Recognising the political nature of issues
- Asking questions that challenge the status quo
- Exposing hidden meanings of data, by examining the language used and what is included and excluded
- Examining power relations involved in an issue: who has the power to influence a decision about an issue and why?
- Considering ethical issues involved in situations and decisions. Are some situations or actions morally good or bad? Are some better or worse? Why? Who gains and who loses from decisions? What would be a socially just decision?
- Understanding different perspectives on issues including those related to class, race and gender
- Becoming aware of possibilities for changing things

Critical pedagogy encourages debate, dialogue and critical literacy. What this might mean in practice can be exemplified in reference to the UN Millennium Development Goals and the Earth Charter, both of which have recommendations relevant to global learning. A teacher encouraging critical thinking would want students to study the documents (or summaries of them) and examine evidence on the extent to which their aims have been achieved. A teacher using a critical pedagogy approach would, in addition, want students to probe the underpinning assumptions of such documents and discuss the appropriateness of the goals and principles listed. In critical pedagogy, all documents, however widely accepted, are open to critical scrutiny.

How can you plan the curriculum to promote critical thinking and critical pedagogy?

In school, students will not develop criticality unless the curriculum and classroom activities

are planned to encourage it. Your role as teacher is crucial. When you are planning units of work, consider the following:

Definitions

Provide students with more than one definition of concepts such as ‘development’, ‘sustainable development’, ‘globalisation’ and ‘interdependence’, all key concepts of the Global Learning Programme. The terms are complex and are used differently in different contexts. Sometimes they refer to economic, sometimes to social, sometimes to cultural, sometimes to environmental aspects of the concept; and sometimes to all of these. None of these concepts is neutral. Hopkin (2015) refers to an article by Willis (2014) in which she outlines different ways in which geographers have thought about development and different approaches to development in practice. Willis points out that some ways of thinking about development, based

on experiences in the global north, might not be appropriate for the global south. Hopkin suggests that we should present a range of models to students rather than only one. If students are to think critically about any of the concepts referred to above, they need to understand more than one definition and to be able to identify how these concepts have been used.

Sources of geographical information and data

When you select a resource for a unit of work, provide students with information about its source: who produced it, when and why. It might sound counter-intuitive, but it can help students to become critical if they are presented with inaccurate or conflicting information or information presented from a particular viewpoint. They would need opportunities through access to other sources of data and through discussion to correct inaccuracies or to identify contradictions or bias.

Activity	How it promotes critical thinking and critical pedagogy	Pages in <i>Geography Through Enquiry</i>
Speculation about how to investigate something or about how something was formed	This encourages students to ask questions	37–41
Socratic questioning in which students use questions to clarify what others say, to probe reasons, assumptions and implications	This encourages a questioning attitude towards knowledge and evidence and the probing of assumptions made	112
Layers of inference , in which students identify what a source of information tells them, what is omitted and what they want to know	This encourages scrutiny of sources of geographical information, stimulates questions and draws attention to what is and is not included	155–159
Argumentation in which students consider the evidence and reasoning on which geographical statements are made	This encourages students to examine evidence, assess the reasoning and consider counter-arguments	66–67
Structured academic enquiry in which pairs of students use evidence to argue for or against a point of view on an issue	This requires students to use evidence to support reasoned arguments and to consider alternative arguments	78
Public meeting role play in which students adopt roles when discussing a geographical issue	This encourages students to use evidence to develop reasoned arguments, to consider values underpinning arguments, to ask questions of others and to consider the power relations involved and who has most power to decide	160–167
Considering definitions of complex concepts	This helps students to understand that terms are used differently and to interpret what is presented to them	74, 89, 92–93
Applying criteria e.g. related to sustainable development	This helps students understand complex concepts and some possible contradictions	88–91
Devising and using a questionnaire survey	This helps students understand how the knowledge produced by questionnaires depends on the questions asked and methods used to process it. They learn to evaluate the validity of their conclusions	175–180
Fieldwork: devising an investigation and carrying it out in the field	This encourages students to consider what data is relevant for an investigation, the accuracy of data collected, the extent to which it is representative, the methods used and the validity of the conclusions reached	

Figure 2: Activities which develop particular aspects of criticality.

Focus of question	Questions applied to what is being investigated
Focus on the key questions asked	What is being investigated? Is it important to investigate this?
Focus on conceptual understanding of key terms	What do you understand by *****? Has it got different meanings?
Focus on geographical sources of evidence	What evidence is there about this question/problem/issue? Who produced this information and why? When was it produced? Is it accurate? Is it biased? What has been omitted? Is it a fair representation?
Focusing on reasoning	What geographical processes are relevant in considering this issue? What is claimed to be true? What arguments are made in support of the claim? Are the reasons a good enough explanation? Are there counter-arguments?
Focusing on different viewpoints	Whose points of view are represented? Are some views not represented? Why do people have different views on this issue? What values underpin their views? Which considerations are valued most: economic, social or environmental?
Focusing on power relations	Which groups are involved in making a decision about this issue? Are any groups excluded from the decision-making? Which groups have the most power to influence a decision? Why? Which groups might gain and which groups might lose from the decision?
Probing assumptions	What assumptions are being made in what is presented? In what ways are different viewpoints related to different ideologies, different ways of thinking about, for example market forces or the role of government and communities in decision-making?
Considering judgements and conclusions	Are the generalisations made and conclusions reached sound? Can they be justified by the evidence and the reasoning?
Considering opinions on ethical matters	What should be done about this issue? Could some actions be considered morally right or wrong? Are there some possible actions that are better than others? Are the decisions socially just?

Figure 3: Teachers' questions.

Activities

Plan activities that promote critical thinking. Figure 2 lists some activities described in *Geography through Enquiry* (Roberts, 2013) each of which can develop particular aspects of criticality.

How can criticality be encouraged in the classroom or field?

If students are to develop a critical approach to learning geography, it is not enough simply to use one or more of the activities in Figure 2. Students are more likely to become critical thinkers if you have established a culture of critical enquiry in which they are constantly expected to ask questions, scrutinise data and consider the extent to which evidence supports claims and conclusions. This culture can be encouraged through open class discussion, exploratory small group discussion and through the kinds of questions you ask. Figure 3 suggests questions

that you could use to encourage different aspects of criticality.

Why is criticality important for global learning?

Critical thinking and critical pedagogy can be applied to all that is taught and learnt in school geography. For several reasons, however, criticality assumes particular importance in relation to global learning.

1. The concepts related to global issues, such as development, sustainable development and globalisation are complex and are used with different meanings. Students need to learn to identify how these terms are being used.
2. There are different explanations for geographical patterns of global development and global inequalities. Students should consider different explanations.
3. The binary distinctions made in the past between more developed/less developed, whether economically or socially, are less appropriate now. Up-to-date statistics, graphs and maps, e.g. on Gapminder, (www.gapminder.org), show that there is a continuum. Students need to use up-to-date statistics and to evaluate the criteria used in classifying people and places (Figure 4).
4. People have different views on how issues related to development, sustainable development, inequality, globalisation, international migration, etc. should be tackled. Global issues are usually controversial: different groups present different arguments, supported by different selected facts and evidence. Students can learn to analyse evidence, identify the underpinning values of different groups and evaluate policies and decisions related to these issues.
5. Geographical knowledge is 'positioned': influenced by the lenses through which geographers view the world. Allen and Massey (1995) have argued that 'our knowledge of the world is always from a certain standpoint, a certain location. We see it from here rather than from there.' (p. 2) This can influence the way we understand the world. For example, most geographical knowledge about urban development has been produced by geographers working in the US or Europe. Knowing about patterns and processes applicable to cities in the global north cannot help us understand the complexities of urban development in the global south. Students need to be aware that historical, cultural and political contexts influence how places develop and that these contexts can vary significantly across the world.
6. Most sources of geographical information that students encounter are produced by the global north, either by geographers or by journalists or aid organisations. Ideally, when students study other parts of the world, they should have access to other voices, to local points of view.

7. Although it is important to have access to voices from other parts of the world, it is also important to recognise that one local voice cannot give a full picture. For example, in the same way as there are different views in the UK about the desirability of importing Valentine's Day roses from Kenya, so there are different views in Kenya about their production. Local sources of information should be equally open to questioning and scrutiny.
8. There is a risk of stereotyping distant places, exaggerating a few characteristics and ignoring differences within places, regions and countries. Throughout history different places have been thought of as something 'other'. In the othering process the other place is represented as inferior through stereotyping and through expressing the relationship between 'them' and 'us' in developmental terms, with an associated vocabulary of backward/modern; primitive/advanced; underdeveloped/developed. Hopkin (2015) writes that the way we represent the world deserves care. School geography should aim to enable students to understand 'the other' and to recognise when places are being represented stereotypically.

Conclusions

All three ways of thinking about criticality discussed above are relevant to school geography. Geographical education can contribute to the wide range of 21st century skills, including critical thinking, identified as necessary for work and life in our changing world. Critical thinking is an integral part of geographical enquiry; if students are to learn to think like geographers then they need to be able to think critically and systematically about geographical knowledge and evidence. Critical pedagogy helps students to probe more deeply and to become aware of the political nature of geography and of how power relations influence decisions that affect patterns and processes.

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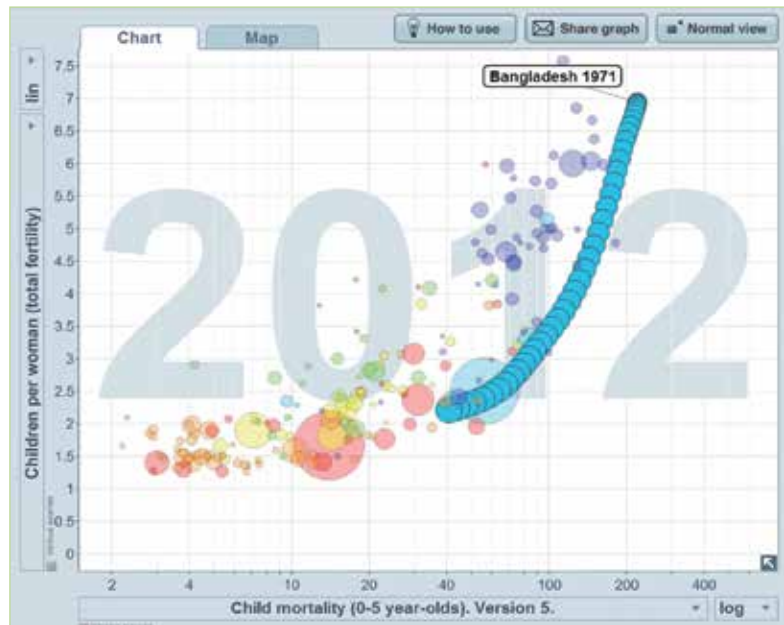
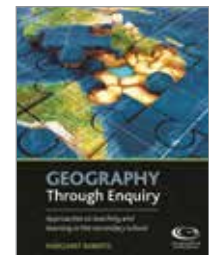


Figure 4: Students need to use up-to-date statistics. This graph created on the Gapminder website challenges the binary distinctions of the past, it shows a major shift that has occurred in infant mortality in Bangladesh in the last 40 years. In 1970 an average woman in Bangladesh gave birth to 7 children. One of four of these children died before the age of five. Today child mortality is 6% (instead of 24%) and the number of children per woman has gone down to 2.3. **Source:** www.gapminder.org

Although criticality is relevant to everything in the school geography curriculum, it assumes particular significance for the Global Learning Programme. This is because of the complexity of global learning's key concepts, the controversial nature of policies and decisions related to global issues and because we see the world 'from here rather than there' (Allen and Massey, *op. cit.*). I do not think that school geography should ignore these complexities. The attempt to understand other places and their relationships with our place is at the heart of global learning. This is challenging, but critical thinking and critical pedagogy can help students to think more clearly, to evaluate the way places, inter-relationships and issues are represented and understood and to consider what is socially just. | **TG**

Margaret's best-selling book on enquiry, *Geography Through Enquiry: Approaches to teaching and learning in the secondary school*, was published by the GA in 2013. It is available from the online shop in hardcopy or an eBook. Individual chapters can also be purchased.



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