

## Why 'thinking through geography' is important

(Source: Leat, D. (1998) *Thinking through geography*. Cambridge: Chris Kington Publishing)

David Leat gives these explanations as to why 'thinking through geography' is important.

### Constructivism

This means learning through what we already know. It is suggested that if new information is interpreted through existing knowledge structures (*schemata*) then it will be incorporated into a better understanding of a topic. If no connection is made the new information will be lost. If there is a mismatch between the incoming and established knowledge, there is said to be a *cognitive conflict*. This must be resolved for the formation of new concepts.

There are many examples in geography where you encourage students to access their existing knowledge, for example through brainstorming. The thinking activities, such as mind movies and living graphs, help students to access their existing knowledge and use it to construct new understanding. Mysteries are an opportunity for students to try out new information against understanding they already have.

### Metacognition

This is thinking about thinking. The aim is to get students, when faced with a geographical issue or problem, to ask 'What is this about? What have I done before that can help me?' Students often surprise us in their level of sophistication in their thinking about thinking – which is why debriefing and developing *metacognition* is a very important aspect of thinking activities.

### Challenge

All the thinking activities seek to challenge students, so they are put in a position where they have to think hard (this is known as *cognitive conflict*). It is no good giving them work that is way too hard, but it is valuable to give them tasks which are just beyond their present capabilities so they have to struggle a bit. The Russian psychologist, Vygotsky, described the concept of the *zone of proximal development*: what a student can do on their own and if supported by more able peers or adults. Teachers should aim to move students through the zone so they can work independently on aspects they can currently do with support from others.

What students can do is highly dependent on their motivation. If they have good self-esteem they will attempt most things. Therefore, to challenge students you need the right classroom climate, building a relationship of trust where students feel supported, valued and their efforts are praised.

Students can be helped to undertake challenging tasks by *scaffolding*; this can be done by:

- ensuring they have an initial purchase on the concepts, skills and language they need – this is why the introductions to lessons – explanations, demonstrations, stories, and analogies are so important.
- building confidence and valuing what they achieve – and listening to their ideas.
- using the more able students to support the learning of others.
- using techniques in which students transform data from one form to another – such as reading photos where visual images are transformed to verbal images, and living graphs where statements are interpreted and transferred to a graph.

### **Talk and group work**

Talk is fundamental to learning – both talk between students and students and teacher. Much of our learning is achieved through language. This is achieved in thinking activities in geography lessons particularly through cooperative group work where students are discussing tasks in groups.

### **Big concepts**

These are central underpinning concepts that are helpful in geography to prevent the subject being seen by students as a mass of disconnected content. Many of the thinking activities focus on these concepts.

### **Bridging and transfer**

Students rarely transfer what they learn from one situation to another of their own accord, therefore it is important for the teacher to give attention to *bridging* when they are debriefing thinking activities. They should encourage students to see connections with other topics and other units of work – in other subjects as well as within geography.

### **Reference**

- Leat, D. (1998) *Thinking through geography*. Cambridge: Chris Kington Publishing.

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