

Support units: Professional practice

Illustration 2: Better learning in the geography classroom

Improving teaching and learning

'How people learn: Brain, mind, experience and school' (HPL) maintains that teachers must teach some subject matter in depth, provide many examples in which the same concept is at work and present a firm foundation of factual knowledge. A number of case studies should be explored to allow students to grasp the defining geographical concepts. Progression is essential to the extent that deep conceptual knowledge occurs over successive school years.

The project maintains that the teaching of metacognitive activities must be incorporated into the subject matter that students are learning. The researchers say that learning strategies are not generic across subjects, and that attempts to teach them as generic can lead to failure to transfer the learning. The processes of metacognition must be explained explicitly and expressed in the discourse of geography.

Continued and focused formative assessment will help to make students' thinking visible to the students themselves, their peers, and their teacher. Such assessments must tap understanding rather than merely the ability to repeat facts or perform geographical skills in isolation. Most importantly, the teacher must have a firm impression of the growth and development of students' thinking about geographical concepts.

Students need to understand their learning target. They need to understand what constitutes an exemplary piece of work and they need to know where they are performing in relation to the target. Only then can they recognise their ability to oversee and guide their own learning in the right direction. In short, they take responsibility for their own learning.

Rachel Lofthouse and David Leat (2006) reflected on the better performing student groups engaged in learning using thinking skills in geography. They found that they planned their learning, established the 'big picture' and then adapted their plans as new information came to light. Better performing students paid attention to details taking care not to ignore information that might provide vital parts of the solution. They listened to each other and they successfully built on their existing knowledge. Finally, they benefited from working with peers with powerful visual memories. There was a correlation between those students that understood graphics and their qualities and the development of grammatical competence.

Research from Science education has indicated that student learning can be enhanced and achievements elevated through programs that concentrate on thinking skills. But as geography educators John Morgan and David Lambert (2005) have observed, students need something to think about. They need to think about geography rather than engage in mechanistic exercises about thinking.

There can, however, be further accelerated cognitive gain if thinking skills approaches are conducted through fieldwork (Smith, 1999). There is also empirical research to suggest that where skills in thinking are fused with the exploration of feelings, values and attitudes and the tactile nature of fieldwork, learning is enhanced (Foskett, 2000). Findings from neuroscience demonstrate that memory

capacities are enhanced when neural transmissions are used over and over again (Nagel, 2005). Words, images, sound and smell, the mélange of fieldwork experiences, all contribute to more durable memories.

Other empirical research has indicated that there are a number of student learning approaches that significantly improve performance. One of the most prominent is setting clear learning goals where the teacher makes the learning goals explicit to the students through modeling and demonstration. The teacher continually monitors understanding, repeats instructions, and is persistently engaged in formative assessment and in obtaining feedback (Hattie 2009).

References

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