The difference between cognition and metacognition

So what is the difference between cognition and metacognition? Not all cognitive processing requires metacognition and not all learners engage in metacognition. It is possible to process mental operations and not think about them.

Example

Mrs Darcy asks her Year 4 students to practise some additions. She reads out a list of six numbers and asks students to add them up. These Year 4 students will need to use their cognition to add up the list of numbers. They will also need to use their metacognition, to think about the process of adding up those numbers. This metacognitive thinking might involve strategies such as: “I’d better write those numbers down so I don’t forget them. Then I’ll be able to add them up more easily on paper”, or “I’d better add those numbers up twice, just to be sure. I could make a mistake with so many numbers”. In these examples of self-talk (see Chapter 2 for more on Vygotsky and self-talk), the students are thinking about their own cognitive processes – in fact “thinking about thinking” is a great strategy for you to remember the difference between cognitive and metacognitive processes. These metacognitive processes are intentionally and purposefully allocating mental resources to cognitive tasks.

Activities

1. Are you aware of your own metacognitive strategies?
2. Can you think of another example of a learning process that requires the use of metacognitive strategies?