Students’ use of good quality learning strategies: A multi-level model of change over five years of secondary school

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Abstract
As students progress through school we expect that their knowledge about the various subject matters, such as biology or maths, becomes more extensive, more structured and readily available for application in diverse contexts. A substantial amount of research has demonstrated that students need to employ good-quality learning strategies and reflect upon their learning processes and outcomes in order to develop their subject-matter knowledge: students need to be effective self-regulators of their learning. Thus, alongside subject-matter instruction we would expect attention to be paid to developing students’ cognitive and metacognitive knowledge and strategies for learning. If we asked, ‘Do biology students increase their knowledge about biology during secondary school?’ we would expect the answer, in general, to be ‘Yes’. Instead, we asked, ‘Do students report increased use of good-quality cognitive and metacognitive strategies for learning as they progress through five years of secondary school?’ Results from students attending three South Australian schools showed, at the whole-group level, moderate use of learning strategies. Hierarchical linear modelling showed significant differences among sub-groups. Disappointing growth trajectories raise questions about whether five years of secondary schooling adds value to students’ self-regulatory learning capacities.