

How research can help address students' recurring mistakes



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I can't begin to estimate the number of times I have written the same feedback on a student's tell me that I am not alone. But help is at hand from the research evidence.

For example, the Education Endowment Foundation's [A Marked Improvement](#) report distinguishes between mistakes and misunderstanding. A misunderstanding is where a student hasn't fully grasped or has misinterpreted an idea or concept, whereas a mistake is something he or she can do but hasn't this time. The research evidence suggests that mistakes and misunderstandings should be marked differently. So how should we approach this?

One example of a mistake, in my experience as an economics teacher, is the skill of application. This refers to a student's ability to use examples, data and contextual information about an economy appropriately in answers – from their own knowledge or from the exam paper. When I ask my students what is the important skill that they should include in their answers, they parrot “application” back to me. If I ask how they can apply, they can tell me. And I have seen evidence of this skill in most students' work at some point. As a teacher, I could be forgiven for thinking that because students appear to confidently know what to do, they would then proceed to demonstrate this consistently in their work.

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Yet, when faced with piles of answers, it's not uncommon to find that some students will have written entire answers without any application at all. I am left poised with my green pen considering what to write. I could ask them to go back to the exam paper, identify a specific piece of data and weave this into a newly drafted paragraph. Certainly this approach would require the student to think about application, but would it rectify the mistake in the future? Or might I be faced with a similar answer in the weeks to come?

The goal of feedback should be to change the student, not the work – a maxim commonly attributed to Dylan Wiliam. More specifically, he has said that the goal of feedback should be to improve the work of students on tasks they have not yet completed. Hence my attention should be on the student's next piece of work, not necessarily supporting them to perfect and correct their last piece. I need to support my students to attend to their mistakes when they're writing their next answer, in-the-moment, when they're inevitably focusing on describing and analysing the main concepts and ideas in the question and overlooking the fact that they should also be applying.

This is where the research on metacognition and self-regulation is helpful. According to the EEF's recent [guidance report on metacognition](#), expert learners are able to automatically plan, monitor and evaluate when undertaking a task, whereas novice learners need more help. In the report, the following questions were suggested for art students to monitor their work:

“Am I doing well?”

“Do I need any different techniques to improve my self-portrait?”

“Are all of my facial features in proportion?”

“Am I finding this challenging?”

“Is there anything I need to stop and change to improve my self-portrait?”

The team at Sandringham Research School and I have adapted these questions for our own subjects, creating monitoring checklists for students to use when completing a task. To model this process in class, as students work on a task, we have stopped them periodically and prompted them to refer to their checklist to reconsider and amend their approach, before setting them off on their task again. It's early days, but students are becoming more conscious of what they're doing, how they're doing it and are able to address mistakes as they go. In my own classes, evidence of application is becoming more visible.