

Top 10 Evidence Based Teaching Strategies

Shaun Killian



Most teachers care about their students' results, and if you are reading this article, you are undoubtedly one of them.

There is no doubt that teachers make a difference to how well their kids do at school. However, when you explore the thousands of research studies¹ on the topic, it is apparent that some teaching strategies have far more impact than other teaching strategies do.

Evidence Based Teaching Strategies

Research shows that evidence based teaching strategies are likely to have the largest impact on student results.

I wrote this article because you (and other teachers) have far too many demands on your time to sift through decades worth of research. At the same time, I wanted to help you step outside your personal philosophies about teaching and the fancy jargon being peddled by authorities, to discover the science of what works.

For teaching strategies to be included on this list, they had to:

- Be supported by hard research, instead of anecdotal case studies or untested theories

- Have a substantially higher effect on student results than other teaching strategies
- Be able to be used on a wide range of subjects and in every year level

What evidence based teaching strategies made it onto the list? Here is the top 10 strategies = the results may surprise you.

Evidence Based Teaching Strategy 1: Clear Lesson Goals

It is crucial that you are clear about what you want your students to learn during each lesson. The effect that such clarity has on student results is 32% greater² than the effect of holding high expectations for every student (and holding high expectations has a sizeable effect). If you cannot quickly and easily state what you want your students to know and be able to do at the end of a given lesson, the goal of your lesson will be unclear. Clear **lesson goals** help you (and your students) to focus every other aspect of your lesson on what matters most.



Want to know more? Check out the article [Setting Lesson Goals Is A Quick Way to Boost Student Achievement](#) and Marzano's book [Designing & Teaching Learning Goals & Objectives](#).

Evidence Based Teaching Strategy 2: Show & Tell

You should normally start your lessons with **show and tell**. Put simply, **telling** involves *sharing information or knowledge* with your students while **showing** involves *modelling how to do something*. Once you are clear about what you want your students to know and be able to do by the end of the lesson, you need to **tell** them what they need to know and **show** them how to do the tasks you want them to be able to do. You don't want to spend your entire lesson having the kids listening to you, so focus your show and tell on what matters most. To do this, have another look at your lesson goal.

Evidence Based Teaching Strategy 3: Questioning to Check for Understanding

Research³ suggests that teachers typically spend a large amount of teaching time asking **questions**. However, few teachers use questions to **check for understanding** within a lesson. However, you should always check for understanding before moving onto the next part of their lesson. Techniques such as *randomised sampling*, *student answer-boards* and *tell-a-friend* help you to check for understanding before moving on from the show and tell part of your lesson while you can use other questioning techniques at different stages of your lesson.

Evidenced Based Teaching 4: Summarise New Learning In A Graphical Way

Graphic outlines include things such as mind maps, flow-charts and Venn diagrams. You can use them to help students to summarise what they have learned and to understand the interrelationships between the aspects of what you have taught them. Studies show that it doesn't seem to matter who makes the **summary graphic**, be it you or your students, provided the graphic is accurate. Discussing a **graphical summary** is a fantastic way to finish off your *show and tell*. You can then refer to it one more time at the end of your lesson.



Evidence Based Teaching Strategy 5: Plenty of Practice

As saying says, *practice makes perfect*. Practice helps students to retain the knowledge and skills that they have learned while also allowing you another opportunity to check for understanding. If you want to **harness the potent power of practice**, you must ensure that your students are practicing the right things. Your students should be practicing what they learnt during your *show and tell*, which in turn should reflect your lesson goal. Practice is not about mindless busy work. Nor does it involve assigning independent tasks that you haven't previously modelled and taught. Finally, research⁴ shows that students do better when their teacher has them practice the same things over a spaced-out period of time.

If you want some specific ways to use both guided and independent practice, check out the Marzano Centre's book, [Practicing Skills, Strategies & Processes](#).

Evidence Based Teaching Strategy 6: Provide Your Students With Feedback

Feedback is the breakfast of champions, and it is the breakfast served by extraordinary teachers around the world. Put simply, giving feedback involves letting your students know how they have performed on a particular task along with ways that they can improve. Unlike praise, which focuses on the student rather than the task, feedback provides your students with a tangible understanding of what they did well, of where they are at, and of how they can improve. In John Hattie's view⁵, any teachers who seriously want to boost their children's results should *start by giving them dollops and dollops of feedback*.

Want to read more? Check out [How To Give Feedback To Students: The Advanced Guide](#)

Evidence Based Teaching Strategy 7: Be Flexible About How Long It Takes to Learn

The idea that **given enough time, every student can learn** is not as revolutionary as it sounds. It underpins the way we teach martial arts, swimming and dancing. It is also the central premise behind *mastery learning*⁶, a technique that **has the same effect on student results as socio-economic status** and other aspects of home life⁷. When you adopt *mastery learning*, you differentiate in a different way. You keep your learning goals the same, but vary the time you give each child to succeed. Within the constraints of a crowded curriculum, this may be easier said than done; however, we can all do it to some degree.

Evidence Based Teaching Strategy 8: Get Students Working Together (in productive ways)

Group work is not new, and you can see it in every classroom. However, **productive group work** is rare. When

working in groups, students tend to rely on the person who seems most willing and able to the task at hand. Psychologists call this phenomenon *social loafing*. To increase the productivity of your groups, you need to be selective about the tasks you assign to them and the individual role that each group member plays. You should only ask groups to do tasks that all group members can do successfully. You should also ensure each group member personally responsible for one step in the task.

Evidence Based Teaching Strategy 9: Teach Strategies Not Just Content

Earlier, I highlighted the importance of *show and tell*. You can increase how well your students do in any subject by **explicitly teaching them how to use relevant strategies**. When teaching children to read you need to teach them how to attack unknown words, as well as strategies that will deepen their comprehension. When teaching them mathematics, you need to teach them problem-solving strategies. From assignments and studying, to characterisation, there are strategies underpinning the effective execution of many tasks that you ask students to perform in school. And, just as with content, you need to tell students about these strategies, to show them how to use them and to give them guided practice before asking them to use them independently.

Evidence Based Teaching Strategy 10: Nurture Meta-Cognition

Many teachers believe they are encouraging students to use meta-cognition when they are just asking students to use strategies – strategies such as *making connections* when reading or *self-verbalising* when solving problems. Don't get me wrong, as I stated in the above point, encouraging students to adopt strategies is important, but it is not meta-cognition. **Meta-cognition involves thinking about your options, your choices and your results** – and it has an even larger effect on student results than teaching strategies. When using meta-cognition your students may think about what strategies they could use before choosing one, and they may think about how effective their choice was (after reflecting on their success or lack thereof) before continuing with or changing their chosen strategy.

What Teaching Strategies Didn't Make the Top 10?

Some evidence based teaching strategies that didn't make the top ten are still worth adopting. Research⁸ shows that a few of these teaching strategies, such as *holding high expectations of students*, have a significant positive impact on student results. They just have less of an effect than those that made the top ten list. Other evidence based teaching strategies, such as *reciprocal teaching*, didn't make the list purely because they can only be used within a single subject. Don't assume that a teaching strategy is no good just because it isn't in the top ten.

That said, there are some popular teaching strategies that do not have a large effect on student results. These include *whole language*, *teaching test taking* and *inquiry learning*.

The Top 10 Teaching Strategies In Brief



1

Be clear about what you want your students to learn

2

Tell your students what they need to know & show them what they need to be able to do

3

Use questions to check that your students understand things

4

Have students summarise new information in a graphical way

5

Give your students plenty of practice spaced out over time

6

Provide your students with feedback so they can refine their efforts

7

Allow time for every child to succeed

8

Get students working together in productive ways

9

Teach students 'strategies' as well as content

10





Nurture metacognition

WWW.PINNACLE.ORG.AU

Each of these **evidence based teaching strategies** has a huge impact on student results. Collectively, the impact is even larger.

References

1. See for example, John Hattie's *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*, and Robert Marzano's *Classroom Instruction That Works: Research-based Strategies for Improving Student Achievement* [↗]
2. In John Hattie's *Visible Learning*, the effect size for *high expectations* is 0.43, while the effect size for *teacher clarity* is 0.75 [↗]
3. Cotton, K. (1989). [Classroom questioning](#). *School Improvement Research Series*, Close Up 5. [↗]
4. Donovan, J.J., & Radosevich, D.J. (1999). A meta-analytic review of the distribution of practice effect: Now you see it, now you don't. *Journal of Applied Psychology*, 84(5), 795–805. [↗]

5. Hattie, J.A. (1992). Measuring the effects of schooling. *Australian Journal of Education*, 36(1), 5-13 []
6. Anderson, S. A. (1994). Synthesis of research on mastery learning. ERIC document; and Guskey, T. R., & Pigott, T. D. (1988). Research on group-based mastery learning programs: A meta-analysis. *Journal of Educational Research*, 81(4), 197–216 []
7. see Hattie's rank ordering of effect sizes in *Visible Learning* []
8. See for example, Rubie-Davies, C. M. (2007). Classroom interactions: Exploring the practices of high- and low-expectation teachers. *British Journal of Educational Psychology*, 77, 289–306; see also, Dweck, C. (2006). *Mindset*. New York: Random House, and *Pygmalion in the Classroom: Teacher Expectation and Pupil's Intellectual Development*. []