



IS THERE EVIDENCE FOR THAT?

Promoting research-led teaching at Wilson's School

SUMMER TERM UPDATE

Welcome to the Summer Term update of our newsletter! Alongside the usual roundup of all things teaching and learning, you will find a closer look at the testing effect and a review of the third book from Peps Mccrea's series on high impact teaching. The other two books in this series were summarised in [previous versions](#) of the newsletter.

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TEACHING METACOGNITION

In this [blog post](#) from the EEF, implementing metacognition and building self regulation in the classroom is examined as part of an evidence informed curriculum. Students typically lack an understanding of the most effective ways to study in order to retain information in the long term. Teaching metacognitive techniques encourages students to critically evaluate their own learning.

Part of improving students metacognitive skills is to explicitly teach good study habits and explain why they work. This [article](#) discusses different learning strategies and identifies practice testing and distributed practice as having the most evidence to support their effectiveness. A discussion of spaced retrieval and how it can be used to boost learning is provided in this [guide](#).

Many students already use the flashcard app [Anki](#) to do spaced retrieval. Daisy Christodoulou explains [in this blog](#) how to make a good flashcard.

WHAT'S HAPPENING IN THE BLOGOSPHERE?



1. Open source journals can be a great way for teachers to access academic research, and in this [Twitter post](#), Peps Mccrea highlights his favourites so far in 2023.
2. Teacherhead writes about the [importance of teaching all not some](#), and identifies six important things to consider in order to reach all students in the classroom.
3. Doug Lemov reflects on the principles of cognitive load theory and in particular the transient nature of short term memory [in this post](#) on the technique Show Call. Show Call involves projecting a student's work for the entire class to analyse and improve together. This technique allows a specific focus on the piece of work without taxing short term memory.



PROFESSIONAL LEARNING

- Aimed at science teachers, CogSciSci - the conference for the use of cognitive science in science education is back on May 30th in Manchester. Online access, including asynchronous recordings are available for a small fee [here](#).
- Are you wondering what the research says about growth mindset? This is a complex theory and just one aspect affecting student motivation. Educational psychologist Dan Willingham explores the evidence in support of growth mindset in this [article](#).
- In the latest Issue of Impact, former colleague Helen Riddle describes a case study - 'Reconsidering oracy: Improving paired discussions in a secondary history classroom' available [here](#).

THE TESTING EFFECT



Strategies in educational practice to promote learning primarily focus on how the information to be learned is encoded and entered into memory. Far less emphasis is placed on the importance of retrieval to improve learning. Evidence shows that retrieval practice is a powerful tool for durable learning.

- Learning: information is first encoded into memory.
- Studying: information that was 'learned' is reviewed.
- Retrieval: information learned is repeatedly recalled from memory. This creates and strengthens connections to the information in memory.

FINDING OUT MORE...

1. This interesting article on a small study of Year 6 pupils reports a decrease in test anxiety when students were taught about the testing effect and metacognition.
2. The Learning Scientists consider the negative testing effect and strategies to avoid it when designing retrieval activities.
3. In this article from Impact, the effect of question difficulty on the testing effect is considered with a small case study and literature review.

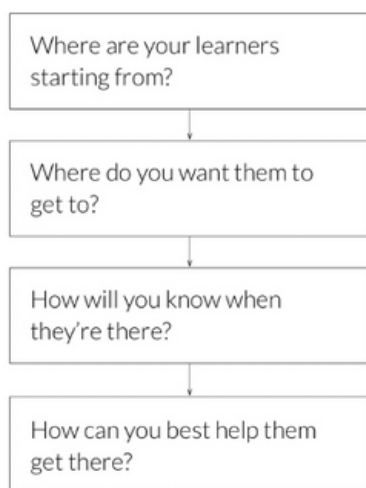
ON THE LIST: READING AND LISTENING

- Professor of Psychology Sarah-Jayne Blakemore shares important ways we can support teenage minds in this article from the Guardian.
- Intended for students, or anyone trying to learn and remember, Dan Willingham uses brain science to guide more effective and successful study habits in 'Outsmart Your Brain: Why Learning is Hard and How You Can Make it Easy'. This article contains an excerpt from the book.
- In this episode of the Evidence Based Education podcast, Kate Jones and Adam Boxer explore the effective use of retrieval practice in the classroom. Adam explains how he developed Carousel Learning and how it can help teachers implement retrieval practice.

In the first book of this series on high impact teaching, Peps Mccrea sets out the habits of lean lesson planning.

Lean lesson planning is a mindset first approach based on these four core mindsets.

- **Process:** Planning is viewed as a thought process not a set of steps or procedures.
- **Pareto:** Do less but better. What parts of your planning process will have the greatest effect?
- **Growth:** Planning takes practice, and you can improve.
- **Design:** Changing the way you plan has a greater impact that your performance as a teacher.



Mccrea P, 2015, p17

Fig. 2 The lean framework

The lean planning framework draws upon the lean planning mindset and provides a scaffold to develop your planning habits.

The author sets out these essential habits in lean lesson planning, divided into the habits of **planning** and the habits of **growth**.



Planning

Backwards design

- Avoid planning that is primarily activity focused or coverage focused. This could involve using pre-prepared lessons or those planned by colleagues without adapting them to the needs of your students.
- Start planning by asking: what do I want my students to learn? Spend most of your planning time on considering this question.
- Identify learning milestones to help students accomplish tasks they could not previously complete by the end of the lesson.
- Students should understand what the milestones are and how they can pass through these as the lesson progresses.

Knowing knowledge

- As students learn they acquire both technical proficiencies as well conceptual understanding.
- Knowledge that is connected to other knowledge enhances conceptual understanding and can move students from recalling information to evaluating and explaining.
- Technical proficiency relies on the use of mental tools and repeated practice can enhance conceptual understanding.
- A more connected conceptual understanding results in more flexible and adaptive technical proficiency.

Check understanding

- There are many ways to do this to balance speed with reliability. A quick check by asking students to traffic light their understanding can be time efficient but lack reliability.
- A combination of targeted hands down questioning and use of mini-whiteboards could be both efficient and reliable.
- Checks should happen throughout the lesson at key points and upon exit. Give sufficient time to carry out exit checks and avoid students opting out.

Efficient activities

- Lean lesson planning encourages us to ask ourselves: what is the shortest path that will allow students to make progress? Select activities based on your answer to this question.
- Consider that student attention is limited and be aware of the pitfalls associated with frequent task switching.
- Create desirable difficulties so that students are challenged but can succeed in the tasks set.

Lasting learning

- Lean lesson planning considers the science of memory to build lasting and fluent knowledge in our students.
- Anchor new knowledge to students' existing knowledge to establish meaningful and long-lasting connections.
- Draw on the concepts of retrieval practice and spaced repetition so students establish fluency in the basics and can apply knowledge to more challenging tasks.

Inter-lesson planning

- Planning is not just about the lesson you are teaching but must consider what comes before and after that lesson.
- You must consider what knowledge to revisit in order to accomplish what the current lesson intends.
- Assessing prior knowledge also helps you plan for future lessons.

Growing

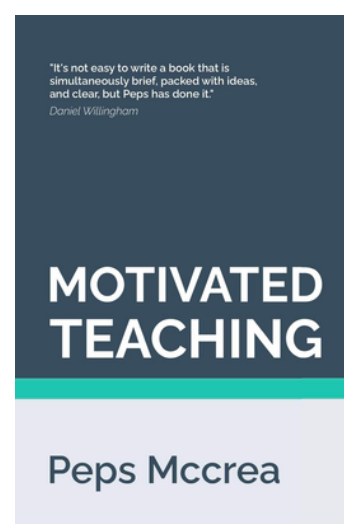
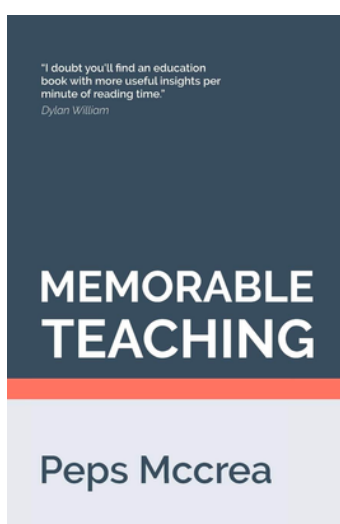
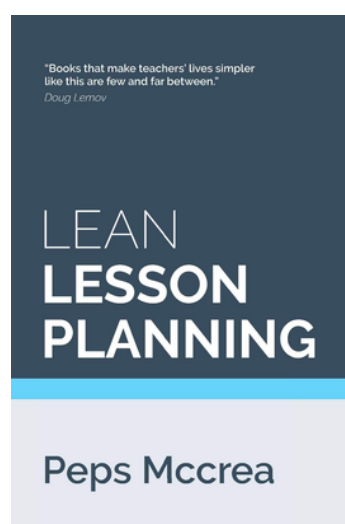
Growth teaching

- Implementing change in practice is best done in small incremental steps, aiming to get better each day and for the long term.
- Growth teachers are constantly identifying areas of practice to improve and evaluating the effect of any changes.
- Ask yourself if your improvements are having an impact. Gather data from a range of sources including assessment, the observations of other adults, and student voice.

Collective improvement

- Find opportunities to talk to other teachers about your teaching. This could be informal or through structured Professional Learning.
- Make use of digital resources such as Twitter to learn and share ideas.
- Meet with teachers outside your school at teach-meets or local networking events.
- Collaborative lesson planning can have a huge impact on teaching quality but is often overlooked in the time pressured life of a teacher.

As with all the other books in this series, Lean Lesson Planning demands little time commitment but is clear and impactful. This series is an excellent resource for any teacher committed to making regular incremental improvements to their practice.



Previous editions of the newsletter can be found here
(click to access the file):

SPRING TERM 21/22



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WELCOME BACK TO THE SPRING TERM!

Though it may not seem like it, warm weather and longer days are just around the corner. Until then, this refreshed version of our research-led newsletter will keep you interested and inspired!

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SUMMER TERM 21/22



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SUMMER TERM UPDATE

It's a new term and summer is just around the corner! After a challenging few years in schools, it is important to consider wellbeing. Not just for students, but for teachers as well. Included in this term's newsletter are resources focusing on the wellbeing of staff in schools.

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AUTUMN TERM 22/23



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AUTUMN TERM UPDATE

Welcome back to a new academic year! After a refreshing break, the Autumn Term is a time to get back into a routine and think about our practice as teachers, afresh. In this issue of our research-led newsletter, the focus is on marking and feedback. Feedback is so impactful on student learning but can also contribute to teacher workload. Included are ideas to maximise impact while managing your time.

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SPRING TERM 22/23



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SPRING TERM UPDATE

Publication of this latest newsletter coincides with brighter days and the early signs of spring! Alongside the usual roundup of all things teaching and learning, you will find a closer look at metacognition and a review of the second book from Peps Mccrea's series on high impact teaching. A review of book one is to follow in the summer term. Enjoy!

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