

making teach-learn easier: theory into practice

timely practice wants to make learning at the point of teaching as easy as possible for the learner and we do this by teaching using "a spiral of gently rising expectations". Each cycle through the spiral consists of 3 stages.

Stage 1: The teacher decides which small bite of learning on the topic to teach, by checking that the pre-requisites are firm foundations for learning.

Stage 2: The teacher teaches and the learners learn the bite size piece of learning on the topic in a lesson.

Stage 3: Allow time for timely practice to increase the depth of the learners learning for this bite. For most learners stage 3 is completed within 2 months.

back to Stage 1, but I'll explain it slightly differently. At any time after the 2 months has elapsed, the teacher can check that the learners have sufficiently deeply embedded the small bite of learning on the topic. If the learners have, then the teacher can then be sure that the bite of learning is firm foundations for future learning. The teacher can then return to stage 2, teaching a slightly harder bite of learning, and then continue to spiral.

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If, as soon as the learners sufficiently embed their learning on the topic, the teacher returns to teach the topic again, and if each cycle takes 2 months, the teacher could potentially teach 5 small bites of learning on the topic within an academic year. I'll return to this idea later ... but first I'll introduce some vocabulary ...

We call the "small bite of learning" a layer - and we define "sufficiently deeply embedded" as mastered. We use colour coding for the teacher to be able to "easily see" how deeply embedded a layer is.

When the learner first starts embedding the layer learned in the previous lesson, we say the depth of learning is "fragile" (the colour code is light blue). As the layer becomes a little more embedded in learning we say the layer is improving and the colour code is medium blue. Once the depth of learning meets our "mastered" threshold (with a colour code of deep blue), the teacher can be sure that the layer will form firm foundations for future learning.

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I'll now explain the "spiral of gently rising expectations" again but with the new terminology:

Stage 1. Decide which layer to teach on the topic. If layer n is mastered, then layer $n + 1$ is ready to be taught.

Stage 2. Teach layer $n + 1$ and add layer $n + 1$ into timely practice.

Stage 3. Continue with timely practice for a minimum of 2 months before returning to stage 1.

Each stage is vital to get the maximum benefit from timely practice.

For low attaining learners beginning timely practice (who are usually ready to be taught about 40 topics) there is likely to be time, in one academic year, when teaching one layer from one topic per lesson for 3 cycles of the spiral for all the topics.

When a teacher first begins to use timely practice there will be no existing data on how deeply the learners know any layer from any topic. So the teacher must use pre assess to build up a picture of the learners existing learning - the mp4 "timely practice: first steps" explains how to do this.

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For the second and subsequent cycles through the “gently rising expectations spiral” the teacher may not want to return to every topic every cycle (some topics are short so teaching one layer once or twice a year will be sufficient) and the teacher may find that some topics can be paired and the teacher can teach one layer from two similar but related topics in one lesson.

What we've found with timely practice is that the learners quickly become “good at using timely practice” - perhaps because it is learner centred.

We've also found, perhaps due to our own poor teacher training, is that some teachers “revert to teach as close to familiar as possible”, which is to teach 2 to 4 layers per topic, and each topic only once per year. This “works” for middle to high attaining learners, but “doesn't work very well” for low attaining learners.

The mp4s “comparing working memory demands of timely practice and business as usual maths teaching” and “planning teach-learn with timely practice: rookie mistakes” are part of our training program and explain why traditional maths teaching doesn't work well for most low attaining learners and what will go wrong if the 3 stage cycle of timely practice is not accurately followed.

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Teachers might now like to go to the learning resources link and select a topic and look at the topic overview or sample and imagine what a progress of 3 layers per year in KS 3 would look like.

{www.timelypractice.com - follow the learning resources link}