

#mathscpdchat 2 October 2018

What, if anything, does 'Cognitive Load Theory' (CLT) mean to you? Does it feature in your lesson planning and classroom interactions?

Hosted by [@MrMattock](https://twitter.com/MrMattock)

*This is a brief summary of the discussion – to see all the tweets, follow the hashtag **#mathscpdchat** in Twitter*

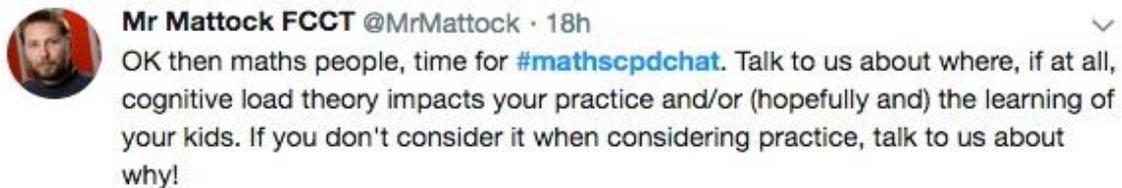


Some of the areas where discussion focused were:

- **supporting colleagues/the whole department** in becoming more aware of ideas within cognitive load theory ... 'just being aware of them has made me re-consider some things';
- **planning lessons** with the focus on what learners will be thinking about rather than only on what they will be doing;
- **talking less in lessons** ... using the 'silent teacher' strategy 'got me thinking more carefully about the examples I select' and 'gives learners more 'space' to absorb question (read it out in their heads)';
- using **example pairs** as a scaffolding technique ... 'learners refer back to their own work rather than ask me when they hit a hurdle' ... 'in primary classroom helps pupils cope with multi-step problems';

- **'my example, your example'** process providing learners with opportunities to 'have a go' rather than just copying;
- if learners are **just copying** then are they learning? What if, while copying the 'layout', they are applying the method to a different 'situation'? The policy adopted by some teachers of providing opportunities for learners to investigate and think deeply and independently only after they are 'firmly solid with the basics'?
- **colour-coding on slides to signal to learners** that they need to shift their mode of participation in a lesson ... for example, from listening and watching to doing something;
- breaking learning into **small steps**; breaking tasks into very small and clear stages;
- **'spaced retrieval'** ... how often to prompt retrieval or return to key topics;
- using **flowcharts in conjunction with worked examples** as a form of scaffolding, particularly when there is a step in a method of problem-solution that is often missed out (for example finding the square-root).

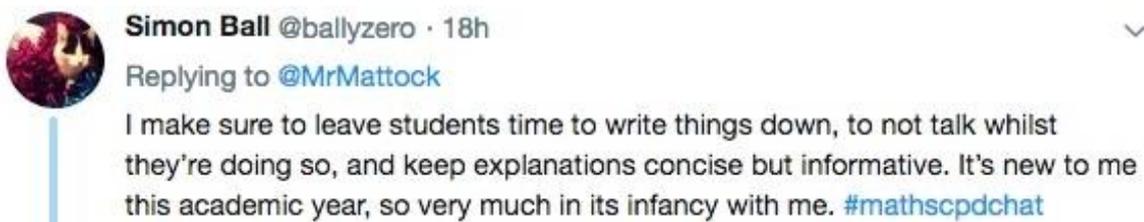
An interesting 'conversation' of tweets, about using silence (and less teacher-talk) as a deliberate strategy in lessons, followed from this tweet by [@MrMattock](#):



including this one from [MrDepala](#)



and this one from [Simon Ball](#):



and this one from [Kathryn](#):



Kathryn @Arithmatics · 18h

Replying to [@MrMattock](#)

One of the biggest things I've taken from seeing [@mrbartonmaths](#) at various conferences is the SILENT example. I've explained why to all my classes, so much so that y8 can now recite my speech about cognitive science. And they have hands up ready for questions after! [#mathscpdchat](#)

and this one from [Atul Rana](#)



Atul Rana @atulrana · Oct 2

I feel I give them more 'space' to absorb the question and read it out in their head. If they are stuck they ask me for more clarity. I used to find the silence while I waited for them hard (silence could mean they are totally lost). I am getting used to silence now [#mathscpd](#)

and this one from [MrDepala](#)



Mr Depala @MrDepala · Oct 2

Replying to [@MrMattock](#)

Silent teacher has got me to think more carefully about the examples I select, how I lay them out. Students seem to be absorbing the content more efficiently as they are able to successfully answer a variety of questions on the topic after a period of time. [#mathscpdchat](#)

(to read the discussion-sequence generated by any tweet look at the 'replies' to that tweet)

Among the links shared were:

[Cognitive Load Theory and its Application in the Classroom](#) which is an article in 'Impact', the Journal of the Chartered College of Teaching, shared by [Mary Pardoe](#)

[An Introduction to Cognitive Load Theory](#) which is written by Michael Allan in preparation for a workshop that he will be leading during a mathematics-education conference in October 2018, shared by [Michael Allan](#)

[Visible Learning](#) which is a website associated with the writing and ideas about learning of John Hattie, shared by [Mary Pardoe](#)

[Teaching for Mastery, Part 3](#) which is a blog by Mark McCourt that includes, at the end of the blog, data on 'spacing', shared by [@EmathsUK](#)