

Developing a Curriculum Dictionary

When members of the BLT community take part in discussions about pedagogy and curriculum we endeavour to speak the same educational language. To support colleagues in doing this we have agreed upon the following definitions for words which can have multiple interpretations.

Authentic assessment	The type of assessment that subject specialists choose to inform them about students' learning in their discipline, free from external constraints. This includes the outputs in the form of marks or grades.
Cold calling	A 'no hands up' questioning strategy described by Doug Lemov in <i>Teach Like A Champion</i> where teachers select who answers each question. The question is asked to the class; there is thinking time and then a selected student is asked to respond. This is different to randomised questioning because the teacher makes a deliberate choice of who to ask.
Collaborative learning	Sometimes called co-operative learning, this means a learning process where students work together to enhance each other's learning. Successful collaborative learning requires participants to have clear roles and an explicit goal for the collaborative group's success to be dependent on each individual's success.
Concrete vs Abstract	The need for concrete examples - real-world, tangible reference points - to make sense of and support the recall of general descriptions or abstract, theoretical ideas or definitions. For example: this cat is an example of a mammal; Frankenstein is an example of a gothic novel.
Cue	The signposting that a question or problem relates to a specific set of material or solution-type. If cueing is present, problems are much easier e.g. it is easier to solve area of a circle questions if students are cued by a title 'Area of a Circle'. A truer test of learning is provided by the absence of cue: problems where students need to determine the solution-type as part of the problem-solving process e.g. they might need to deduce that finding the area of a circle is part of the solution to a problem.
Differentiation	Any process that support students with different levels of confidence, fluency or prior knowledge to succeed in a task. This is best considered in terms of providing different levels of support to obtain the same learning goals. It should not mean providing different tasks or setting less ambitious goals for some students.

Elaborative interrogation	A process that involves probing a student's schema by asking questions such as: Why? How? What happens next? This can be enacted consciously by an individual or in a paired discussion or as part a teacher-student exchange. It can be considered as a kind of mental mind-mapping.
Fluency	A level of competence and confidence handling knowledge of any kind such that it is virtually automatic; it is recalled or enacted rapidly whenever needed with minimal effort. Fluency is developed through practice.
Formative assessment	This is any form of assessment where the outcomes are subsequently used to inform next steps in the learning process. Formative assessment that is likely to be effective will be regular, low stakes, focus on a relatively narrow set of ideas and will generate feedback that can be acted on swiftly. Any assessment from tests and quizzes to in-class questions can be regarded as formative if they feed into subsequent learning.
Generative	Learning is a generative activity. This means that whenever we have learned something, we can generate a fresh version of the information using what we can recall from our long-term memory. We do not simply pluck out a ready-made version; we generate a new version every time. Doing this repeatedly can in turn strengthen our capacity to recall the same information later, provided that we get affirming or appropriate corrective feedback to ensure our schemata are accurate representations. We cannot truly evaluate our learning if we are not required to engage in a generative process: e.g. if we re-read a text, we can't tell whether we've learned the content until we remove the text, generate a version of the content and then evaluate our response.
Interleaving	This is where, in any given study or practice session, we mix the study or practice of different but related sets of ideas within a subject domain. This allows us to form links between sets of ideas leading to deeper understanding and stronger recall. It does not apply to mixing very different subjects; it's an effect that works by mixing ideas within, say, areas of biology or related areas of maths or geography.
Learning	Learning is defined as an alteration in long-term memory. If nothing has been altered in long-term memory then nothing has been learned.
Mastery	When knowledge and skill have been learned (transferred to long-term memory) and can be used with fluency and confidence.
Metacognition	This is the conscious exploration of our own thought processes that support us in forming secure schema, solving problems or completing tasks. Successful students tend to have good metacognitive awareness; this can be developed when teachers model and narrate their own thinking process as part of an instructional sequence.

Modelling	Demonstrating a technique, method, problem-solving or writing process; providing an exemplar of a certain standard as a reference point; narrating the thinking during a task to showcase the underpinning metacognitive process.
Process questions	Questions that explore metacognition: How do we know? How did you work it out? Why did you start there? What was your thinking?
Recency	A short time interval between an instruction phase and a practice phase. Where there is recency, it is difficult to establish what has been learned because it is deceptively easy to reproduce freshly acquired information or procedures without them being retained in long-term memory. If we are going to establish that something has been learned we need time to pass to remove the recency effect. Short-term performance might create an illusion of learning but it's only a long-term arc that will really tell students and teachers what has been learned.
Retrieval practice	Simply put, this is practicing remembering. It involves engaging in generative activities, recalling knowledge from long-term memory in response to prompts of various kinds. This might include performing a task or procedure, quizzing, problem-solving, mind-mapping, engaging in elaborative questioning, telling a story. Any process that relies on us recalling things we know is a form of retrieval practice. Repeated applications of this strengthen recall and allow us to develop fluency.
Scaffolding	Instructional supports that guide students in the process of completing complex learning tasks. These supports illustrate effective methods, ways of organising information or patterns of thinking that, later, can be removed. Scaffolding must be taken down if a sound structure has been built. That applies to learning too.
Schema	A way of conceptualising the way we organise knowledge in our long-term memory. We make relational models that connect chunks of information allowing us to retrieve large amounts of information at once. For example, we have a schema for our local area or anywhere we've been; for the passage recent time and historical time; for the way material behave and how this links to a model of particles; for how plants grow; for numbers and shapes in 2D and 3D. Misconceptions arise when we have a faulty schema - a set of ideas that don't explain the reality of the world.
Skill	Skill is a performance built on what a person knows. That performance might be physical or cognitive, but skills matter and they cannot be separated from knowledge. They are, if you like, the 'know-how' in applying the 'known'.
Spaced practice	The study or practise of the same set of ideas with time intervals between. It's been shown that this has a stronger effect on our fluency with retrieving information than blocked practice where information is studied in longer blocks of time in one session. For example, studying something for half an hour per day for four days is likely to be more effective than a two hour block of study. This applies across weeks as well. If we allow time for forgetting, subsequent retrieval practice after an interval can lead to much longer-term recall.

Spacing

The phenomenon whereby learning is greater when studying is spread out over time, as opposed to studying the same amount of content in a single session.

Threshold knowledge

Knowledge that unlocks student understanding of bigger ideas or concepts and therefore promotes progress in their learning.
