Improving the Quality of Teaching & Learning

Every Journey is Made Up of Many Small Steps

What’s Your Next Step?

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Focus On the Learning

The Structure

1. Identify Key Concepts & Big Ideas
2. The Best that Has Been Thought or Said or Done
   - What are the Success Criteria that will be Used and Shared
3. Define Excellence – Be Specific, Extensive & Challenging
   - Determine the Assessments – What, When & How
4. How Will You Gain Evidence of Gains in Learning
   - Scaffold & Spiral the Learning building from Shallow to Deep
5. Structure the Learning
6. Order the Teaching Programme
   - Building in Time to Revisit & Reteach
7. Sequence the Learning

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Milestones & End Points

Whilst learning isn’t linear it does have a structure and a necessary sequence. *I must learn letters before I can write words. I need to have a knowledge of words before I produce sentences.*

Determining the structure and sequence of the learning is a core role of teachers. These two are interrelated and whilst I’ve separated them out in the planning it helps to look at them together.

The schema for planning lessons moves from the *Defining Excellence & Evidence* to *Structure & Sequence*. Assessment drives the curriculum and defines what excellence is. It requires the assessments to be pre-planned as they provide the milestones and end point of each particular learning journey. It is from these milestones and end points that the structure of the learning is formed and the appropriate teaching sequence developed. Assessment and the structure of the learning are intertwined and inseparable.

Assessment of students’ Learning needs to be:

- ✓ Common across teachers, teaching the same schemes of learning
- ✓ Cumulative so all the scheme’s learning is revisited
- ✓ Pre-planned to ensure all teachers are aware of the standards expected
- ✓ Analysed so errors and mis-conceptions are rapidly identified
- ✓ The analysis is acted on to close the gap between actual and expected learning

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At its most effective assessment:

- Is used formatively by teachers to improve the quality of teaching students experience. Effective teaching has the greatest impact on students who are most in need of accelerated progress.
- For learning involves personalised feedback against challenging success criteria with the opportunity for students to improve their to a higher level.
- Of learning ensures that where students haven’t made the expected gains in learning there is rapid intervention by their teacher, through revisiting and re-teaching, key factual or conceptual knowledge. This closes the gap between actual and expected learning.

If you’re not familiar with the acronym DIRT it stands for Dedicated Improvement & Reflection Time. This is the time made available to students, within class, to improve their work following feedback on their work.
What’s the Next Step?

**ACTIVITY:**
Think of a key concept or big idea you teach.
Devise an end of unit assessment. The assessment needs to test students understanding of key concepts and the facts needed to understand them. (Think milestones and end points).

Does your assessment demand excellence of the students? Is it sufficiently structured and challenging?
Create Learning Gaps

Teachers tend to be quite expert in the subjects they teach. It’s very easy to forget the challenge of being a novice and make assumptions about prior learning or expect students to take massive strides too quickly.

Think about learning to ride a bike. The nervous feeling, steadying yourself, pushing off, maintaining balance, keeping the front wheel facing forward, judging stopping distances ... but before long this all becomes automatic and done without thinking.

Students are novices and need learning stepping stones appropriately spaced and sequenced. It is too easy to forget this and fail to script the learning narrative for students.

I’ve never been abseiling before. If I ever did, I would want to be taught by someone who was an expert. I would also want them to go slowly and carefully through each stage. Show me how to get the harness on properly and check I’ve done it correctly. How do I attach the rope? Show me the knot again, stage by stage. There’s a lot to learn before I get anywhere near to the cliff edge.

Structuring the learning requires; building from facts, linking them together into ideas and concepts and then looking to apply them to new thinking at an appropriate pace.

Pace is different from speed. Pace is about assessing where a student is up to and giving them the next step. Pace is not about going quickly through the learning.
You Don’t Say, Sherlock

Be An Empathetic Expert ...

... Script the Learning Stages Clearly ...

...Remember Being a Novice
Structure the Learning

Having defined what excellence looks like the learning needs to be structured in such a way as to scaffold students towards it. The issues from cognitive science around learning gaps and cognitive load become increasingly important for teachers to understand.

If the new learning is not sufficiently connected to prior learning the gap becomes too wide for the student to bridge. Students may respond by working hard. Alternatively, they may quietly disengaging or become a nuisance, to prevent themselves from looking like a fool when they are struggling. Their response is uncertain and the outcome unpredictable. Connect new learning to prior learning.

The next stage in planning the learning is looking at the structure. The SOLO Taxonomy is the most useful and common sense approach that I have come across.

Particle Theory in Year 7 may go something like this:

- List the three states of matter and the processes of changing state (Multistructural)
- Describe the size, proximity, movement of and relative attraction between the particles in the three states of matter (Multistructural)
- Compare and contrast the physical properties of the three states of matter (Relational)
- Explain the different physical properties of the three states of matter based on the size, proximity, movement of and relative attraction between the particles (Relational)
- Hypothesise about why substances have different melting and boiling points (Extended Abstract)

I tend to omit the uni-structural element when writing the learning intentions down. They tend to just be one element of the multistructural. You may see it as a clever short cut or lazy approach to planning. Do what works best for you.
You Don’t Say, Sherlock

Structure the Learning ...

... Script the Uni- & Multi-Structural Learning Carefully ...

... Help Students Take the Next Step
SOLO Taxonomy

Know It

(SOLO – Uni- & Multi-structural)
- Acquisition of facts & discrete skills
- Surface Learning – prerequisite for Deep Learning

Link It

(SOLO - Relational)
- Able to relate and combine facts to explain why something occurred or combine discrete skills together and apply to solving a problem/challenge
- Deep Learning

Own It

(SOLO – Extended Abstract)
- Formulate own conceptual framework to create hypothesis, prediction or programme or evaluate other’s hypothesis, prediction or programme against our own framework
- Deep Learning
What’s the Next Step?

ACTIVITY:
Structure the Learning. Think of a key concept or big idea you teach. Can you structure (script the learning) from the factual, to the relational and on to the extended abstract?

Do these learning intentions direct a student towards excellence?
Focus On the Learning
The Sequence
(Learning Flows)
You Don’t Say, Sherlock

“Goldilocks’ Principle” of Learning …

… Not To Easy, Nor Too Hard, Just Right …

… Create Learning Gaps Not Chasms
Creating Learning Gaps

Targets & Learning Gaps
For the past twenty years or so targets have been more aligned to accountability than learning. We are moving into a phase where this can be rethought. This is not easy for many of us who have been programmed to churn data upwards through the hierarchy.

Targets need to be agile, flexible and adaptable to ensure there is always a gap in the learning. The gap in learning is produced by having a target that is always in advance of the student’s current attainment – not too close nor too far, get the gap just right. I’ve reworked the ideas below from the original thoughts on my blog.

Agile Targets
These are targets linked to learning intentions and determined at the classroom level.

They form a part of all effective teachers’ repertoire. The teacher uses the learning structure and sequence to determine, “Where are you up to now?” And then “OK, this is where to next?” … agile target setting in action

The teacher can now work with the student to bridge the gap in learning created by the new learning intentions. A simple example of this in action is formative assessment with a student expected to respond to feedback by producing a new improved piece of work at a higher level. The teacher will then set a new target for the student to create a further gap in learning between her/his current attainment and future attainment. This continual revising of the learning (targets) intentions between teachers and students is agile target setting.

It has the greatest impact on learning. It is by far the most important of the three different types of targets. Dylan Wiliam (2014) questions whether for all the data schools have anyone reviewing it would be able to determine what a student knew, understood or could do.

“What these mark books hardly ever record is what the student can do, and what might be their next steps in the learning. It seems likely that whatever Craig Raine’s Martian did include in his postcard home about record keeping in schools, he would certainly not regard record keeping’s prime purpose as being supporting learning.”

SOLO & Learning Gaps

The power of using SOLO, to plan, is that it links together the different elements of the teaching and learning process. For example, in providing feedback against the structured learning (targets) intentions.

If the student’s work has:

☑ Described the size, proximity, movement of and relative attraction between the particles in the three states of matter.

Their target is to:

☑ Explain the different physical properties of the three states of matter based on the size, proximity, movement of and relative attraction between the particles.

However, if their work evidences that they are already able to do this.

Then their target is to:

☑ Hypothesise about why substances have different melting and boiling points.

This feedback may be within class or as part of a response to a written piece of formatively assessed work. The importance of *making students’ learning visible cannot be stressed enough*.

When giving written feedback think about giving numbers or letters to the learning intentions or success criteria so you can feedback the next step as a letter/number instead of having to write the whole thing out.
**Targets Linked to Learning Gaps**

**Flexible Targets**
I tend to think of these as numerical targets or grades that are part of teachers discussions with students during an academic year. Predicting or projecting a target for an individual student is notoriously difficult, even before taking into account the volatility of examination systems in England over recent years. In creating targets for students at some future point consider two issues:

1. How will the target identify or link to the learning that is required? This creates numerical targets or grades that have *meaning* with respect to a student’s learning.

2. When there is a significant time lapse between the point of target setting and the final assessment – start to end of year/key stage - think about setting the target as a range e.g. *Your target is an A*-B, what you get will depend on the effort you are prepared to put in*. As the final assessment approaches the range narrows.

**Adaptable Targets**
Targets are often set for students at the beginning of Key Stage 2 or 3 or 4. Any review of them is likely to be infrequent at best. Once the target is set the student is stuck with it.

Wiliam (2014) suggests setting targets at an aspirational level (75th percentile) instead of the average. For each baseline grade/level/score students will attain a range of outcomes. As a rough (very rough) example, students getting a level 4 at Key Stage 2 are similarly likely to attain a grade D, C or B at GCSE. The average grade for a level 4 student would be a C but the aspirational one (75th percentile) would be a B.

Other schools have gone further and won’t set a GCSE target below a grade C – why target a “fail” for mainstream students. If you want to go to the extreme follow the example of Maestro Benjamin Zander. Set all students a target of an A* and then focus on helping them achieve it.

**Less time on target setting**
**More time on target getting**

*Targets need to be much more about learning and students than schools and accountability. We’ve lost our way for a couple of decades now.*
What’s the Next Step?

ACTIVITY

It’s time to put it all together and plan the learning for a topic or series of lessons you are about to teach.

On the next few pages there are a few different planners that you may wish to use to support you through the process.
The planner on the next page can be used to help you plan the learning for a particular topic, concept or big idea. The five boxes area essentially just spaces for you to record your thinking for the five different stages in the planning learning schema.

If you turn the planner upside down it converts from a planning order to the teaching or delivery order. That will hopefully make some sense. I’ll go into more detail in the section on Pedagogy & Practice.

There are links for you to download the planner as either a Publisher document that you can type into or a PDF to write on.
Planning Learning

If you would like to download this resource:

A PDF copy can be downloaded by clicking [here](https://db.tt/B90RRfXw) or copy the following code into your browser [https://db.tt/B90RRfXw](https://db.tt/B90RRfXw)

A Publisher copy (contains text boxes for you to type into) can be downloaded by clicking [here](https://db.tt/sodXUePA) or copy the following code into your browser [https://db.tt/sodXUePA](https://db.tt/sodXUePA)
The layout of the next planner is very different but the stages in the planning process are identical.

- Start with the big idea. It can help to think about what is the crucial knowledge that the student must take away with them. This crucial knowledge sits in the “Stickability” box.

- The next set of boxes “Making Students’ Learning Visible” focuses on the excellence and evidence components of the planning schema. It is the opportunity to record:
  - The success criteria that define excellence for the particular concept, at that stage of a student’s learning
  - The means by which you will assess students’ prior learning and
  - How you will assess their on-going learning in an effective and efficient manner.

- Challenging learning gains refers to the structure of the learning. The four different knowledge dimensions have their own boxes. Factual & conceptual knowledge go together in the top box, procedural knowledge (subject skills) in the middle and the metacognitive in the bottom one.

- Finally, the last box “Flow” is the sequence of the learning. What are you intending to teach in what order?

This planner can be used to either plan the learning for a lesson or a topic. Whilst it was designed for the latter please feel free to use it in any way that is useful to you.

In time this way if learning becomes habitual. The thinking through the stages becomes more automatic and less awkward then when you first use them. I hope you find them of some use to you.
If you would like to download this resource:

A PDF copy can be downloaded by clicking here or copy the following code into your browser https://db.tt/nxACASCw

A Word copy (contains text boxes for you to type into) can be downloaded by clicking here or copy the following code into your browser https://db.tt/Rx95Ygpn
References


_Wiliam, D* (2014) *Redesigning Schooling -8: Principled Assessment Design. SSAT (The Schools Network) Ltd*
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