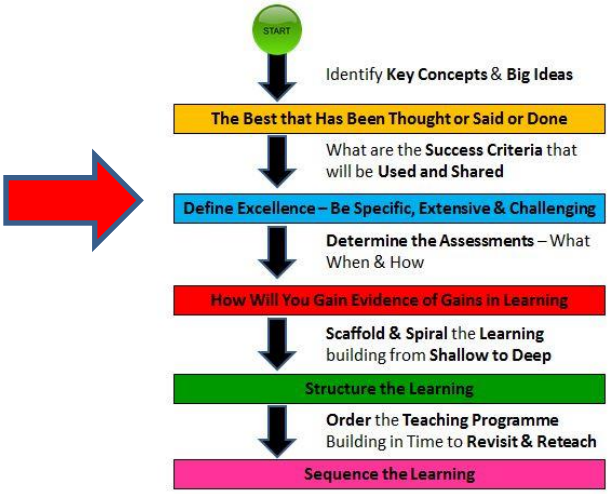
Improving the Quality of Teaching & Learning

Every Journey is Made Up of Many Small Steps

What's Your Next Step?

Focus On the Learning

Defining Excellence



You Don't Say, Sherlock

If You Don't Define Excellence…

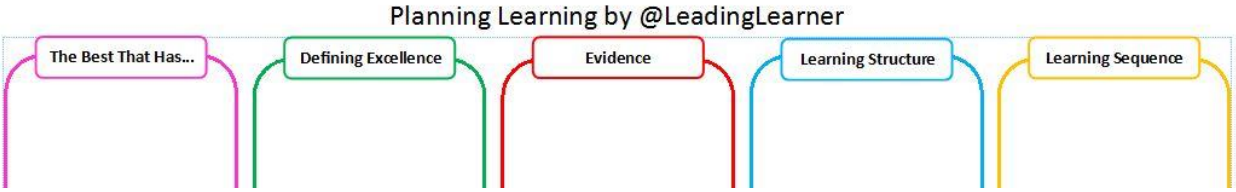
… You'll End Up With Mediocrity…

… What Do You Want?

Defining Excellence

The schema for planning lessons moves from the Big Ideas to *Defining Excellence & Evidence.* Assessment drives the curriculum and defines what excellence is. Teaching to the test is sometimes used as a phrase to represent all that is wrong in our current education system. I tend to think there is nothing wrong teaching to the test as long as the test is worth teaching to. Equally there is much to be said for teaching beyond the test where it creates a greater coherence in the learning or is of particular interest or usefulness to the students. Forget the current proposals for Key Stage 2, GCSE or A-level, what would your assessment system look like. Knowledge, understanding, skills, ability of the learner – what would you want to assess at the end of your course and why? This will give you your curriculum outline.

Having identified the key concepts, ideas and procedures to be taught you need to define excellence. This is all about challenging students and making sure they know what is expected of them. It needs to sit at the beginning of the planning process so we ensure that we build excellence not mediocrity into our expectations of students. Excellence need to be encapsulated in success criteria. These become a description of important milestones on the learning journey. As a key aspect of the assessment process they become a guide to *"where I am now"* and *"where to next".* This is all part of *making the learning visible.*



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You Don't Say, Sherlock

Teach to the Test …

… Teach Beyond the Test …

… Just Make the Test Worth It

Success Criteria

Writing great success criteria which increase clarity about excellence, in terms of the requirement from the student's outcome, can be difficult:

- ✓ First, you have to be clear in your own mind what excellence looks like
- ✓ Secondly, you have to communicate this to the students with absolute clarity

When implementing our pilot *#OutstandingIn10Plus10* CPD programme, we were looking at honing our skills with respect to teacher clarity. One very honest member of staff admitted to not being very clear about success criteria or the writing of them. So we started looking at his success criteria as a group. It was related to learning about the different types of religious orders and why people choose one over the other.
The starting success criteria was:
"State the type of religious order joined e.g. apostolic or contemplative"

My question is very simple, *"If I do that do I get an A*?"* Success criteria must be challenging and direct students towards excellence. I just keep asking the same question and adding to the success criteria until it made clear to students what excellence would look like in their learning.

We ended up with:
"Compare and contrast apostolic and contemplative orders explaining why people join one based on personal preference, scriptural quotes, chosen purpose and challenges of life."

Now I know what I need to do to get an A* – success as defined by the initial and revised criteria are very different.

Success Criteria Must Be Specific, Extensive & Challenging. Give Your Criteria a SEC.

Success Criteria

Success criteria need to be:

Specific

It's important to be clear about the elements that are required for excellence – the *"perfect solution"* in Mathematics or inclusion of "*personal preference, scriptural quotes, chosen purpose and challenges of life."* Clarity comes in part through specificity.

Extensive

This is linked to specificity but requires all the main elements of the excellent answer to be included. The issue of balance is raised here as students won't necessarily be helped by a long tick list, what are the main elements that are the key to excellence?

Challenging

Keep asking yourself, *"Would this produce an A* answer?"*

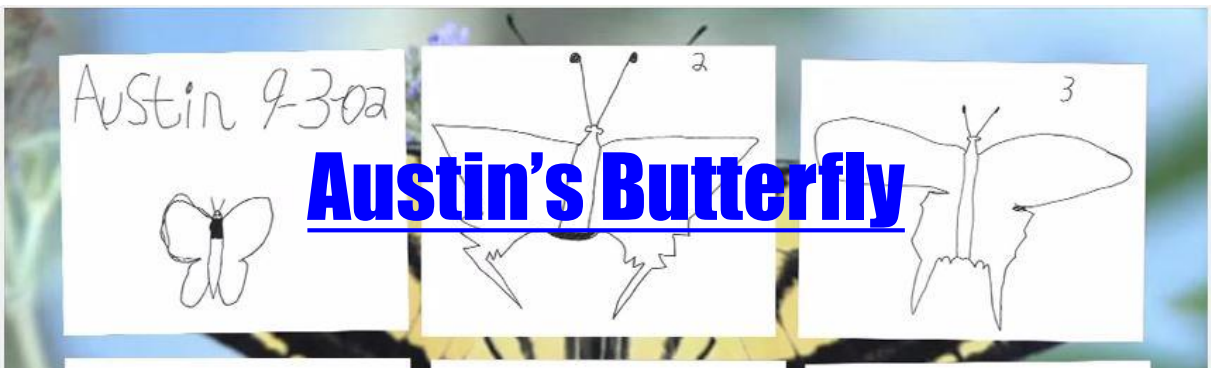
There is a real danger that we do not ask enough of our students. In primary schools teachers' expectations in Y3 & 4 can be very different to those of Y6.

Secondary schools can spend time faffing about in Key Stage 3 only to have to put the warp factor drivers on in Key Stage 4 for students to make expected or better than expected progress.

In Sixth Form, students taking too long to get going in Y12 or just enjoying themselves for a year, only to underachieve, can't make up the ground in Y13. We must not be complicit in this with low level undemanding success criteria.

If you want to read more about expectations have a look at Tom Sherrington's post:

Defining the Butterfly: Knowing the Standards to Set the Standards



EXAMPLE:

I would consider any Year 7 student who could explain the difference in properties between a solid, liquid and gas in terms of the size, proximity, movement and attraction between the particles in the three states of matter as a sign of excellence.
Even better if they could then hypothesise (extended abstract action) about why substances have different melting and boiling points.

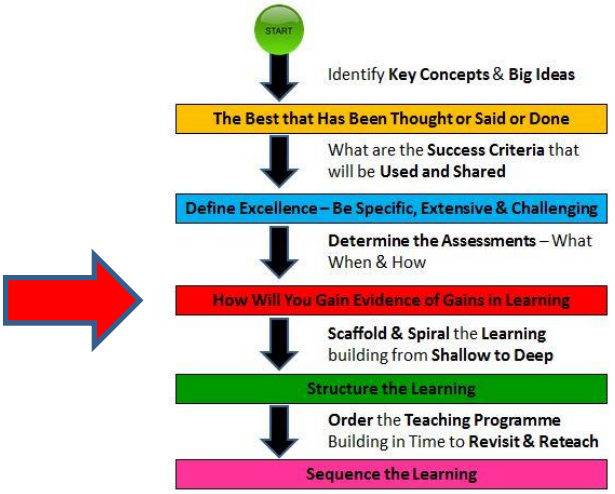
What's the Next Step?

ACTIVITY:

Define Excellence

Look at some of the big ideas or key concepts in your subject. What would Excellence look like in terms of a student's understanding? How could they demonstrate mastery of a concept in a particular year group or key stage?

Focus On the Learning
The Evidence
(Making Learning Visible)



You Don't Say, Sherlock

Two Key Points in Planning Learning ...

... the Starting Point & End Point ...

... Find Them then Close the Gap

Assessment

Too often we start teaching before we have actually determined what students do and don't know. The danger here is twofold. Firstly, we waste limited curriculum time teaching students what they already know. Alternatively, we fail to connect the learning to what students securely know. If the gap between what we teach and what a student already knows is too great they will be unlikely to breach it.

> *"... if I had to reduce educational psychology to just one principle, I would say this: "The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly."*

Acknowledgement: Quote from Ausubel, D. P. 1968: Educational Psychology: A Cognitive View. Holt, Rinehart and Winston Inc. New York

Mathematics is a good example but this issue exists in all subjects.

Students struggling in Mathematics at the end of Key Stage 2 or beginning of Key Stage 3 often have gaps in their learning from Key Stage 1. A lack of recall around simple number bonds or times tables frustrates further learning. Assessing whether students have key factual or conceptual information, on which to build, is of primary importance at the beginning of a scheme of learning. If necessary reteach the basics before moving on.

Alternatively many primary school teachers would start pulling their hair out if they visited a Key Stage 3 Mathematics lesson. The students may have already mastered much of what is being taught. Getting the balance right is a real headache. Hence the need to assess prior learning carefully.

You Don't Say, Sherlock

Planning Requires Assessment ...

... Assessment is Planning ...

... Plan to Continuously Assess

Assessment – Making Learning Visible

Assessment can become very unwieldy and time consuming in class. Keep the process simple and the assessment questions linked to the big idea or key concept.

Ball & Hoop Experiment

- The ball fits through the hoop when cool.
- If the ball is heated strongly in a bunsen flame it:

A. Contracts in size
B. Expands in size but still fits through the hoop
C. Expands in size and does not fit through the hoop
D. None of the above

Ball & Hoop Experiment

The ball expands when heated because:

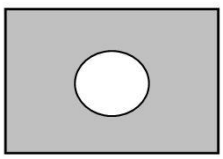
A. The particles within the metal ball increase in size
B. The spaces between the particles inside the ball increases in distance
C. The heat causes the particles to breakdown and there is an overall increase in the number of particles
D. Both answers A. and B. contribute to the increase in size of the metal ball

- What will happen to the size of the hole, in the middle, if the metal sheet is evenly heated?

A. Stay the same size
B. Increase in size
C. Decrease in size
D. None of the above

Can you explain why?

- A piece of metal with a hole in the middle:



Examples adapted from Eric Mazur's Work.

In this set of examples I've tried to take students thinking from unistructural, through relational and onto extended abstract.

The *assessments (questions)* form the backbone of the learning. in the lesson(s) This starts with the observational (sensory) start of the learning and ends with a question at an extended abstract level.

The last one takes quite some thinking about even for Science teachers. I often end up explaining it using a ring of people holding hands – they represent the particles around the edge of the ring.

To use these questions in a formative way, students could either write the letter of the correct answer on a whiteboard or be given a set of laminated letters A-D held together by a treasury tag.

Getting the questions sorted, sequenced & structure is key. Thought also needs to be given to how you can quickly assess where students are in their learning.

A different way to use multiple choice in a formative way is the confidence grid. I first came across it in this presentation by the University of York Science Education Group.

Assessment – Making Learning Visible

The following example (final one in a series of four questions) is taken from Leverage Leadership (2012) by Paul Bambrick-Santoyo:

MACBETH:

They hailed him [Banquo] father to a line of kings.

Upon my head they place a fruitless crown, And put a barren sceptre in my gripe, Thence to be wrench'd with an unlineal hand, No son of mine succeeding. If't be so, For Banquo's issue have I filed my mind; for them the gracious Duncan have I murder'd

The description of Macbeth's "barren sceptre" contributes to the unity of the passage in which of the following ways?

A. As a parallel between Macbeth's possible children and Banquo's possible children

B. As a satirical comment on challenges Macbeth will face with infertility

C. A comparison between Macbeth's strong formal authority and his lack of popular influence

D. An ironic contrast between Macbeth's power and his inability to produce future kings

This could be used in a formal test or in the classroom to check students' current thinking with a confidence grid adding significantly to the process..

The description of Macbeth's "barren sceptre" contributes to the unity of the passage in which of the following ways?		This is Correct	This Maybe Correct	This Maybe Wrong	This is Wrong
A	As a parallel between Macbeth's possible children and Banquo's possible children				
B	As a satirical comment on challenges Macbeth will face with infertility				
C	A comparison between Macbeth's strong formal authority and his lack of popular influence				
D	An ironic contrast between Macbeth's power and his inability to produce future kings				

Assessment – Making Learning Visible

Another simple idea is giving a group of four students a piece of blank A3 or A4 paper. In response to a key question each student writes her/his answer in a corner of the paper. The teacher can wander round and quickly see what students are thinking.

Remember Follow the Learner

Have most students already grasped this key concept? If yes, move on.

Does nobody really have much of a clue? Time to take a step back and possibly reteach some important factual knowledge.

Enough students are on the right track so get them discussing their thinking. Pairs of students discuss the question and their answers and record their answer on the sheet in the space between their answers but closer to the middle. Check their answers and engage in their discussion when necessary.

If the learning is going in the right direction get students to discuss their thoughts in a four and put their answer in the centre of the paper. If not intervene.

Remember Follow the Learner

I'll talk more about class room protocols later. If this works for you it could become a part of your assessment repertoire.

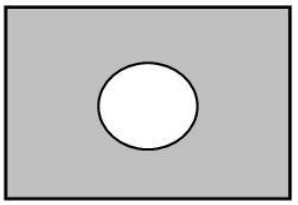
It's really good for generating ideas and getting students to evaluate each other's initial thinking.

- What will happen to the size of the hole, in the middle, if the metal sheet is evenly heated?

A. Stay the same size
B. Increase in size
C. Decrease in size
D. None of the above

Can you explain why?

- A piece of metal with a hole in the middle:



Example of an extended abstract question.
Adapted from Eric Mazur's Work.

What's the Next Step?

ACTIVITY:

Think about a big idea or key concept you are just about to teach. What would be the sequence of questions you would use to check the students' learning?

Assessment & Learning

Data has long been associated with producing a number or letter, current and projected, to feed upwards into the school's data churning machine. What these grades actually mean in terms of what a student knows or doesn't know is often poorly defined. Accountability not learning has driven the data process.

Other high performing systems see all children capable of anything. In the UK we have been prone to labelling – including labelling with 'levels' (against the very reasons why Paul Black suggested levels in the first place), with implicit ideas of fixed ability or differential rates of progress. When we ask 'why hasn't this pupil grasped X yet?', we should not answer 'because they are level 3A' but instead 'because I haven't presented it to her/him in the right way yet'. We need to be less prone to simple models of progression and open up the importance of expansion and consolidation (a key feature of education in Singapore and Hong Kong) and their role in deep learning – stuff you retain as personal capital.

Oates (2013)

A change of mindset is required. Think about data from a learning perspective. A teacher, department or school defines what it expects a student to learn by the end of an academic year. This can be refined to the end of terms, half terms and units of learning. The learning is defined in terms of knowledge and skills. Having assessed the starting point for each child the teacher's job is to close the gap between the starting and end point. The progress becomes a measure of the knowledge or skills gained. Learning and the child move back centre stage.

Assessment for Learners
Not Assessment for Leaders

You Don't Say, Sherlock

Assessment is Primarily About …

… Learning Not Tracking …

… Make the Data Have Meaning in the Classroom

Assessment & SOLO

	Level of Learning	SOLO Taxonomy	What it means?
Excellence	Deep	Extended Abstract	*Can extend and apply ideas.* Extended thinking.
Secure		Relational	*Can link and relate ideas.* Strategies for thinking & reasoning.
Developing	Surface	Multistructural	*Many ideas.* Basic skills & concepts.
Foundation		Unistructural	*Single idea.* Recall & reproduction.

Acknowledgement: @shaun_allison - Assessment Without Levels
http://classteaching.wordpress.com/assessment-without-levels/

If you are going to construct a curriculum around a theory of learning like the SOLO Taxonomy then it would make sense to assess it using the taxonomy. The above graphic from Shaun Allison is useful in developing a language around assessment and reporting of a student's current knowledge with respect to certain big ideas or key concepts.

The important part is that each level maps across to the success criteria which have been written with respect to the SOLO Taxonomy.

As students are assessed their place on the learning journey is identified. The next step in the learning journey is then also obvious. There is then the opportunity to reteach aspects either for the whole class or through individual intervention as appropriate.

Assessment & SOLO

Tracking the learning using the SOLO Taxonomy is relatively easy. With success criteria assigned to the various SOLO levels a record can be kept of students' learning. The tracker shows that Stephen in particular is struggling. What intervention needs to go in so he can accelerate his progress?
It also shows that "Concept 3" is not well understood by the class as a whole. There is a need to reteach this. The opportunity exists to think about how it was taught previously and what could be done differently in the future.

Name	Subject:				Class:
	Concept 1	Concept 2	Concept 3	Concept 4	Concept 5
Mary	Relational	Relational	Multistructural	Relational	Relational
Ross	Relational	Multistructural	Multistructural	Relational	Relational
Debbie	Extended Abs.	Relational	Multistructural	Extended Abs.	Relational
John	Multistructural	Relational	Multistructural	Relational	Relational
Amjad	Extended Abs.	Relational	Multistructural	Relational	Extended Abs.
Tom	Multistructural	Relational	Unistructural	Relational	Multistructural
Stephen	Relational	Multistructural	Unistructural	Multistructural	Multistructural
Debbie	Relational	Relational	Multistructural	Relational	Relational
Damian	Extended Abs.	Relational	Relational	Relational	Extended Abs.
Mel	Relational	Relational	Multistructural	Relational	Relational
Dan	Extended Abs.	Relational	Multistructural	Relational	Extended Abs.

The Excel spreadsheet outlined above is available to download

If you would like to download this resource:

An Excel file (with a drop down SOLO menu for the cells) can be downloaded by clicking here or copy the following code into your browser https://db.tt/VUMW7nMp

There is the potential here to move towards greater mastery of the big ideas and key concepts rather than simple coverage of the curriculum.

Reporting, at Key Stage 3 in England, will look very different in the years to come. There will be multiple reporting systems and this is going to represent quite a challenge for parents and schools alike.

You Don't Say, Sherlock

Think about the T in Teaching ...

T ... Give Breadth & Depth ... T

Breadth **Depth**

... Mastery Not Coverage is Key

Getting Summative Assessment Right

The following set of principles were espoused by Dylan Wiliam in a Specialist Schools & Academies Trust Symposium: Vision 2040 in March 2013. They form the basis of building a valid and reliable summative assessment system. They apply as much to a school's system as they do national examination systems.

Principle one: Trust
Do stakeholders have faith in the outcomes?
It presents the fundamental question, is our summative assessment system trustworthy? Do students and parents have faith in the outcomes?

Principle Two: Distributed
Is the evidence collected over time rather than entirely at the end?

Principle Three: Synoptic
Is there an end of course element that requires learning to be accumulated?

Principle Four: Extensive
Are all the important aspects of your subject assessed
Is it actually telling us which of our students are more able mathematicians, linguists, scientist, historians, geographers etc.? Think factual, conceptual and procedural knowledge. It's not necessary to assess all elements at the same time but they do need to be taken into account

Principle Five: Manageable
So that costs are proportionate to benefits

The current national system in England has certainly nailed number 5 but I'm less convinced about the rest.

Getting Summative Assessment Right

Common and Cumulative
Teachers shouldn't be determining their own assessments for individual classes. Rather teachers should work collaboratively to develop common, high quality assessment tasks.

With changes to end of course examinations in England it is even more important to ensure summative assessments are cumulative. Students need to develop the skills and attributes required to memorise a larger volume of knowledge than under the more modular assessment system. A cumulative approach may also have benefits for aiding learning as students are required to continually revisit work already completed. This should help ease of recall and create space for deeper cognitive processes.

Making It Extensive
The **Religious Studies Department** had already developed an assessment system that was both distributed and synoptic. It consists of a series of end of module tests which are "cumulative", that is they include in each module test questions from the previous module(s). However, they intend to focus on skills based assessment at Key Stage 3 as they considered the results would be far more consistent than knowledge based assessment. Since fifty percent of the Religious Studies GCSE marks are for questions that assess reflection and reasoning skills, i.e. evaluation, these skills should be developed and the focus for assessment in lower school RS. Their assessment programme will now be more extensive.

Making It Distributed
The **English Department** were concerned that they were using individual assessment pieces as the basis of reporting. They intend to move to a more distributed model where they use a number of pieces to determine grades for reporting purposes. This matches well with the portfolio approach that they already have that builds up a student's English profile. As a spin off of the more distributed approach they can move away from a written assessment, prior to an attainment grade being entered for a student, and increase the amount of speaking and listening which further secures the extensive nature of their assessment programme.

There is actually a lot of sense and efficiency in using end of topic assessments at the beginning of a topic or the middle – what do students already know and where next in the learning?

Computerised tests may also have a part to play here. It's not just the ease of marking but also the analytical tools help spot patterns and trends in what is known and not known.

What's the Next Step?

ACTIVITY:

How could you improve the efficacy (effectiveness & efficiency) of summative assessment?

References

Bambrick-Santoyo, P (2012) *Leverage Leadership* Jossey-Bass (Kindle Edition)

Hattie, J (2012)*Visible Learning for Teachers.* London: Routledge

Hattie, J & Yates, G (2014) *Visible Learning & the Science of How We Learn.* London: Routledge

Millar, R & Whitehouse, M. (2014) *York Science: Developing Formative Assessment in Science*. A presentation to the ASE.

Oates, T (2013) *"Using International Comparisons to Refine the National Curriculum",* A speech by Tim Oates, Group Director of Assessment Research and Development, Cambridge Assessment, to the Mayor's Education Conference, November 2013

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