CEM
Centre for Evaluation & Monitoring

Durham University

The ‘whys’ of the new National Curriculum and the removal of ‘levels’

Katharine Bailey

CEM
Centre for Evaluation &

Durham University

TOM BENNETT

Slay the data dragon

IF YOU THINK that the key way to improve the education of your students is by understanding the school tracking data more clearly, then you don't need CPD; you need a priest, to pray for your soul.

I could weep at the thought of all those enthusiastic teachers rocking back into work after six weeks in reality rehab straight into a sucker punch of statistics and bar charts. It's as if some senior staff, envious of other teachers' perceived liberties, swear to share the hell in which they find themselves.

Of course, schools have to justify themselves externally. And I know that understanding the needs of pupils requires in part that you measure them collectively and individually against statistical expectations. But I implore all schools to consider just who needs to be concerned with this level of data and how deeply. Good teachers should know how all their children are doing. If they don't, that is a problem – not an excuse to view children as data points on a scatter graph.

That attitude might suffice for an external examiner or inspector. But it's fatal for the relationship between student and teacher. The teacher needs to see the pupil as a human being in a classroom surrounded by tables. Summative data tells only f the story and to dwell on it y excludes other ways of who and what a ood teachers ngs data-driven repare ow little

signed up for it. The rest of us chose a tour of duty in the classroom. Don't kill that love and passion by turning it into bean counting.

Two monsters loom between teachers and the ability to teach: behaviour and workload, the Scylla and Charybdis of the classroom. Yet good management can protect teachers from anodyne, unnecessary administration. It can turn a teacher's workspace from an aquarium into an ocean. Poor management seeks to justify its supremacy by inventing responsibility bureaucratic pointlessness. It doesn't have to be this way.

The start of the year is a time for the meat and veg of teaching children – preparing rooms, resources, books, lessons, activities, trips. I invite all leaders in school to consider the *Goose that Laid the Golden Eggs* story. Dissatisfied with the riches it dispensed, and convinced that greater treasures lurked inside, the farmer and his wife cut it open, only to find themselves with a dead goose and no more gold.

> The teacher needs to see the pupil as a human being

Schools can do that too. Sometimes in leadership, the hardest but most important thing to do is nothing, the temptation to act is often irresistible, as a surrogate for getting things done. But the business of schools is the education of children. The key facilitators of this are teachers. And teachers need to be free to teach.

Bennett is a teacher in
don and director of
bED conference

CEM
Centre for Evaluation & Monitoring

Durham University

Outline

- CEM
- Levels, the good and the bad
- Defining the current situation
- How are people responding to the situation
- What might a post-levels landscape look like

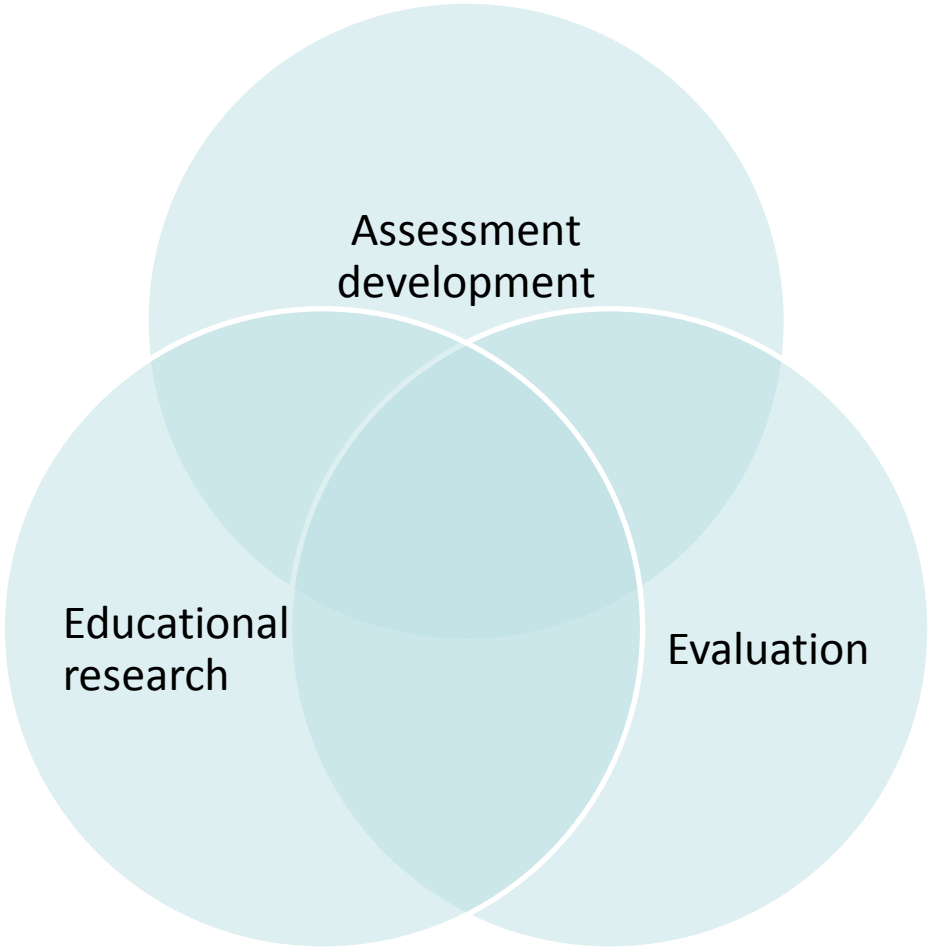
CEM
Centre for Evaluation & Monitoring

Durham University

CEM

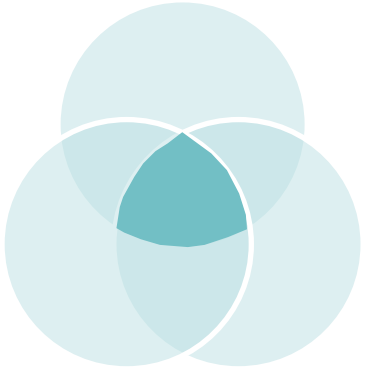
- The largest educational research unit in a UK university
- 1.2 million assessments are taken each year
- More than 50% of UK secondary schools use one or more CEM system
- CEM systems used in over 70 countries
- Largest provider of computerised adaptive tests outside US

CEM


Assessment development
Educational research
Evaluation

Assessment development

- Computer-adaptive assessment
- Measurement that takes account of question difficulty not just pupil ability
- Ages 3 – 19+
- Range of uses
- Reporting, interpretation, next steps



Alis

Yellis

INSIGHT

MidYIS

InCAS

PIPS Reception Baseline

CEM
Centre for Evaluation & Monitoring

Durham University

Educational research

- Standards over time
- ADHD
- Baseline assessment
- GCSE subject difficulty
- Predictive validity of assessments
- International comparative studies
- Teaching and Learning Toolkit
- Inspection systems
- Attainment and poverty

Evaluation

- Peer tutoring
- Reading schemes
- Breakfast clubs
- Shared maths
- Movement and physical activity
- Dyslexia interventions

CEM
Centre for Evaluation & Monitoring

Durham University

How levels began …

"The scaling system should be directly related to the development of pupils' competences as described by the attainment targets of the national curriculum. … We shall use the word **level** to define one of a sequence of points on a scale to be **used in describing the progress of attainment** in the profile component."

DES/WO (1988) *National Curriculum Task Group on Assessment and Testing—a report*

CEM
Centre for Evaluation & Monitoring

Durham University

Levels

- Give comparisons against national averages rather than old style class rankings
- Description of what learning comes next
- Shared framework
- Common language
  - For communicating with other teachers, parents
  - Linking to resources

CEM
Centre for Evaluation & Monitoring

Durham University

"As part of our reforms to the national curriculum, the current system of 'levels' used to report children's attainment and progress will be removed. It will not be replaced."

2013, Michael Gove,

NCTL Conference *Seizing Success*

www.education.gov.uk/schools/teachingandlearning/curriculum/nationalcurriculum2014/a00225864/assessing-without-levels

Levels

- Focus is often on which level and how quickly pupils can progress through levels
- Labelling
- Not all levels 4s are school ready
- Level 3 is a great achievement for some
- Fundamental issues with internal assessment that relies on unstandardised descriptors

CEM
Centre for Evaluation & Monitoring

Durham University

Five myths about the old national curriculum levels

http://michaelt1979.wordpress.com/

CEM
Centre for Evaluation & Monitoring

Durham University

Five myths about the old national curriculum levels

Myth 1: The government set out the assessment programme for schools

Myth 2. Parents understand them

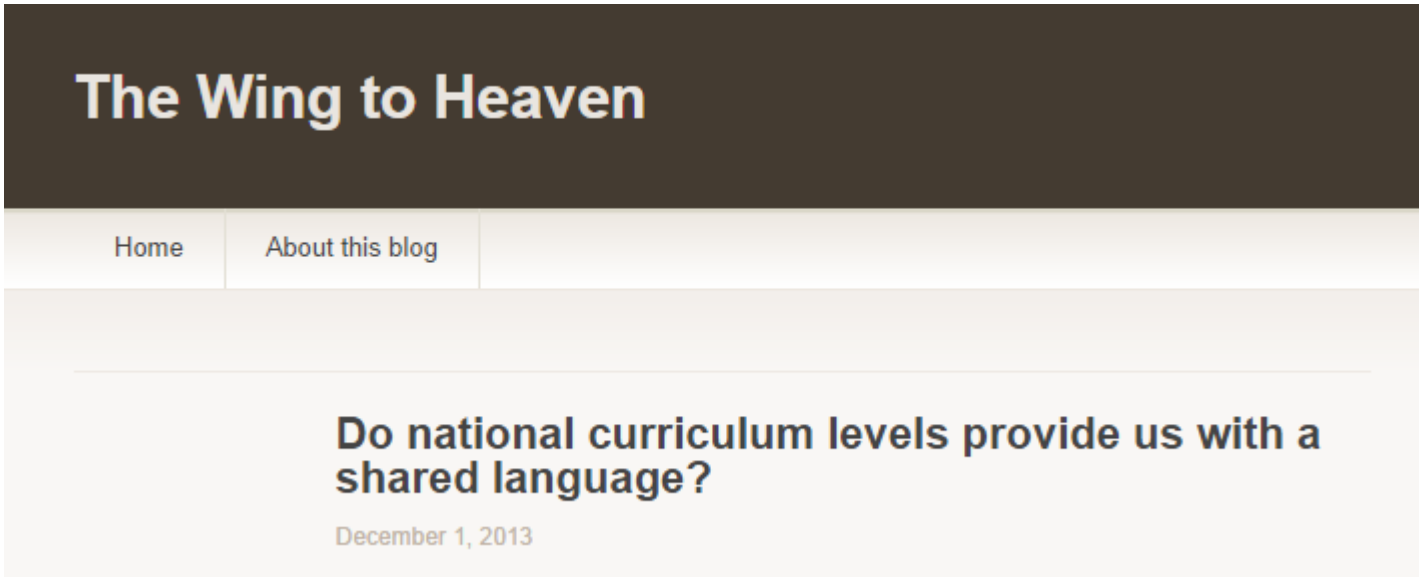
Myth 3. They aid transition

Myth 4. They helped measure progress

Myth 5. They can be adapted for the new curriculum

It's a validity question …

- Validity of assigning levels is low



http://thewingtoheaven.wordpress.com/

Which level?

1. English - Pupils begin to show confidence in talking and listening, particularly where the topics interest them.
2. Maths - Pupils critically examine the strategies adopted when investigating within mathematics itself or when using mathematics to analyse tasks.

CEM
Centre for Evaluation & Monitoring

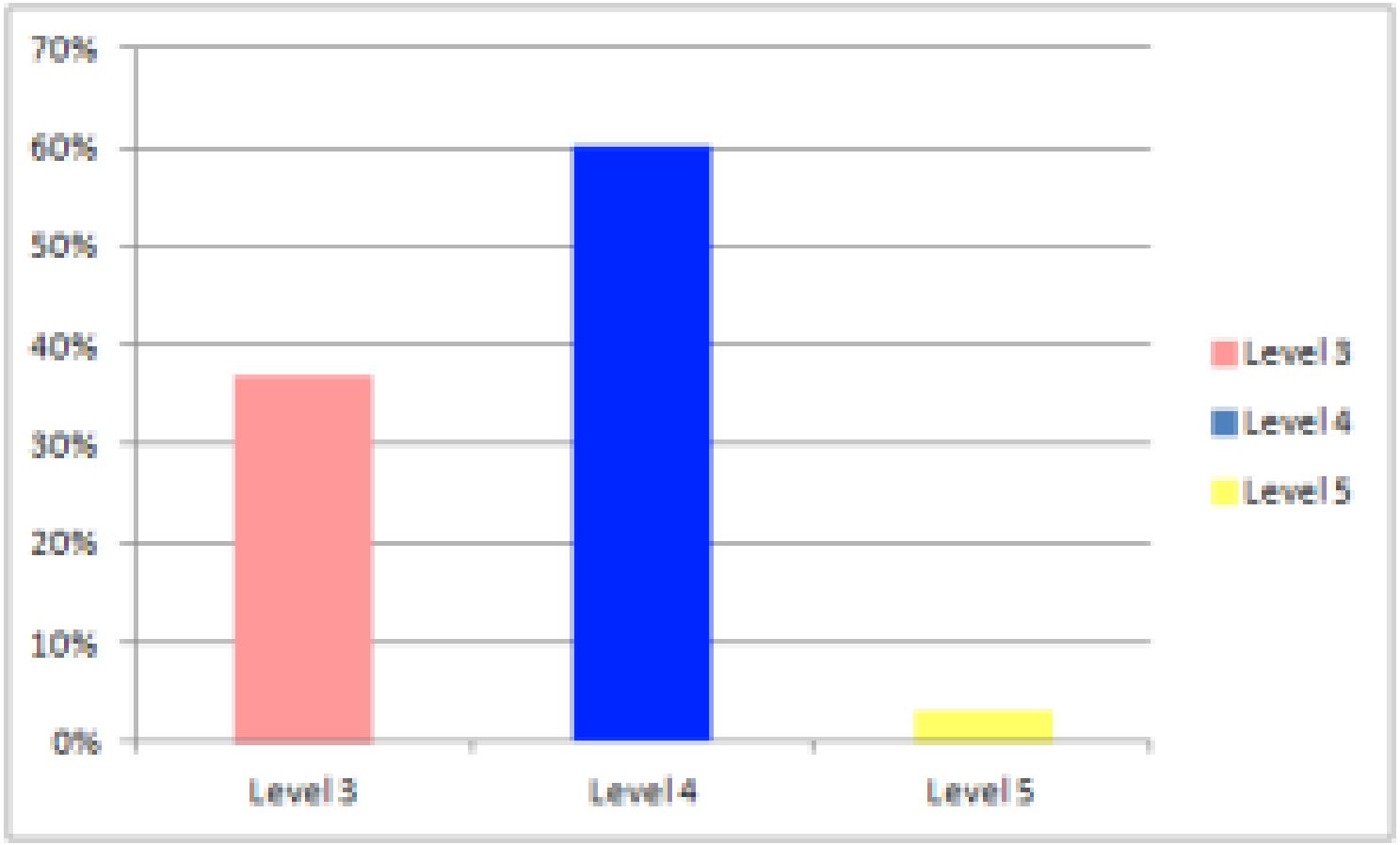
Durham University

Which level?

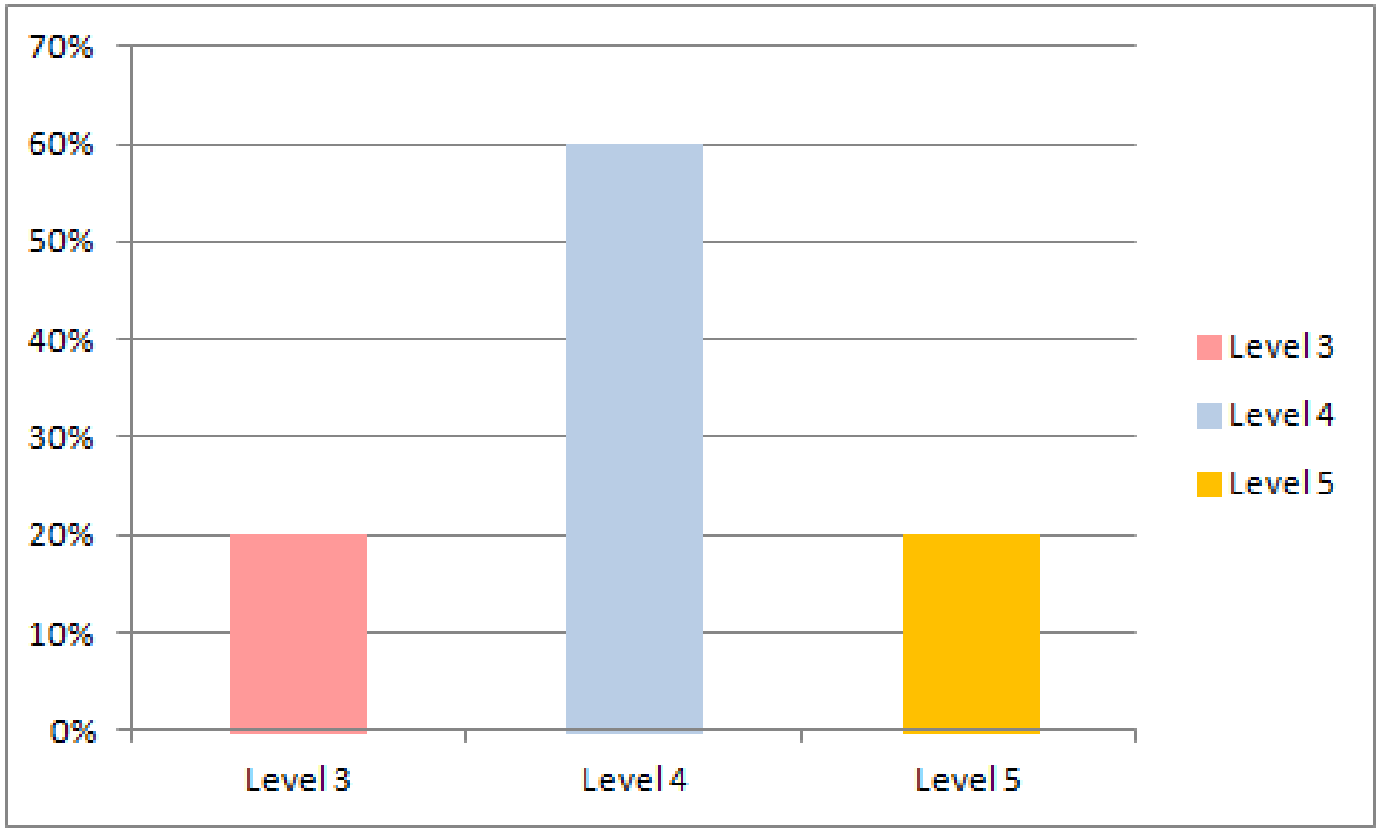
1. Pupils understand why some texts are particularly valued and influential.
2. In maths, pupils check their working and results, considering whether these are sensible.

http://michaelt1979.wordpress.com/

Handwriting style is fluent, joined and legible



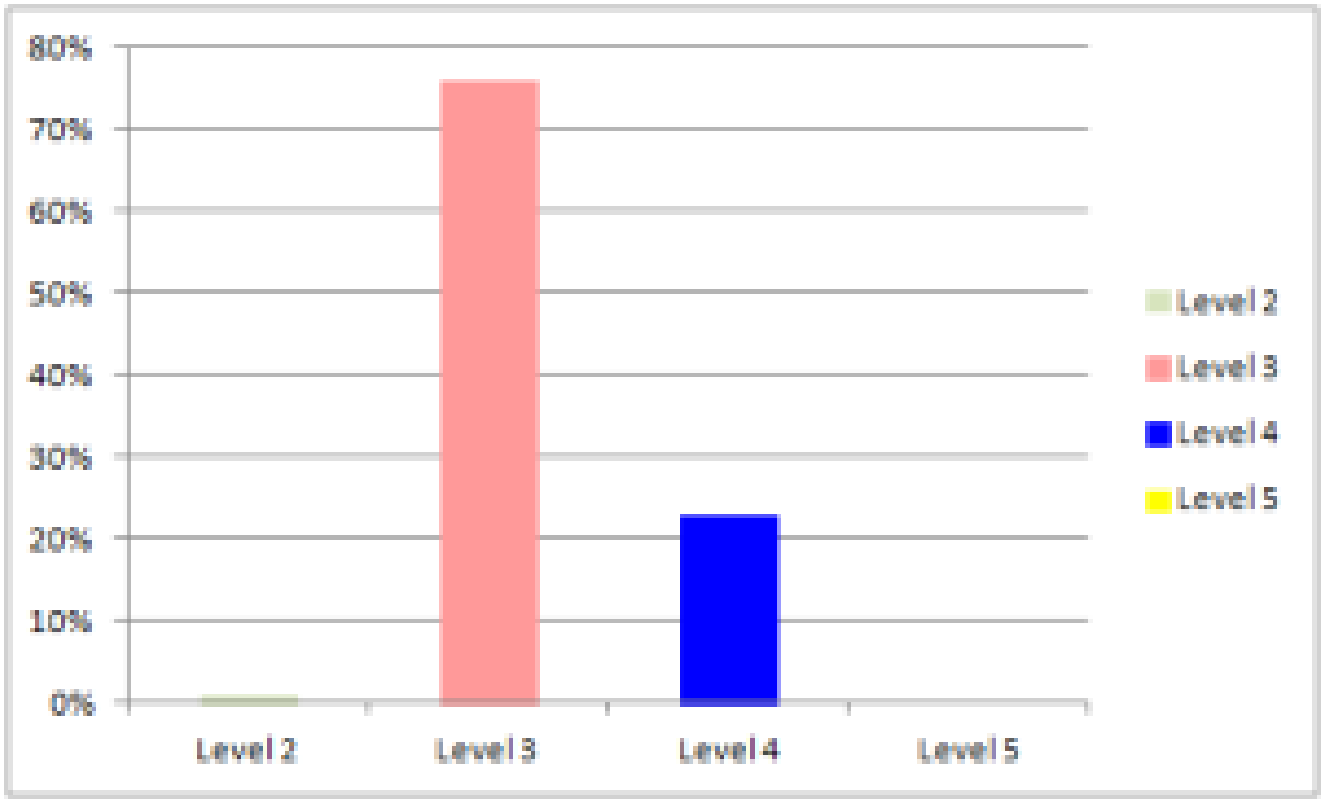
Simple and complex sentences are organised into paragraphs



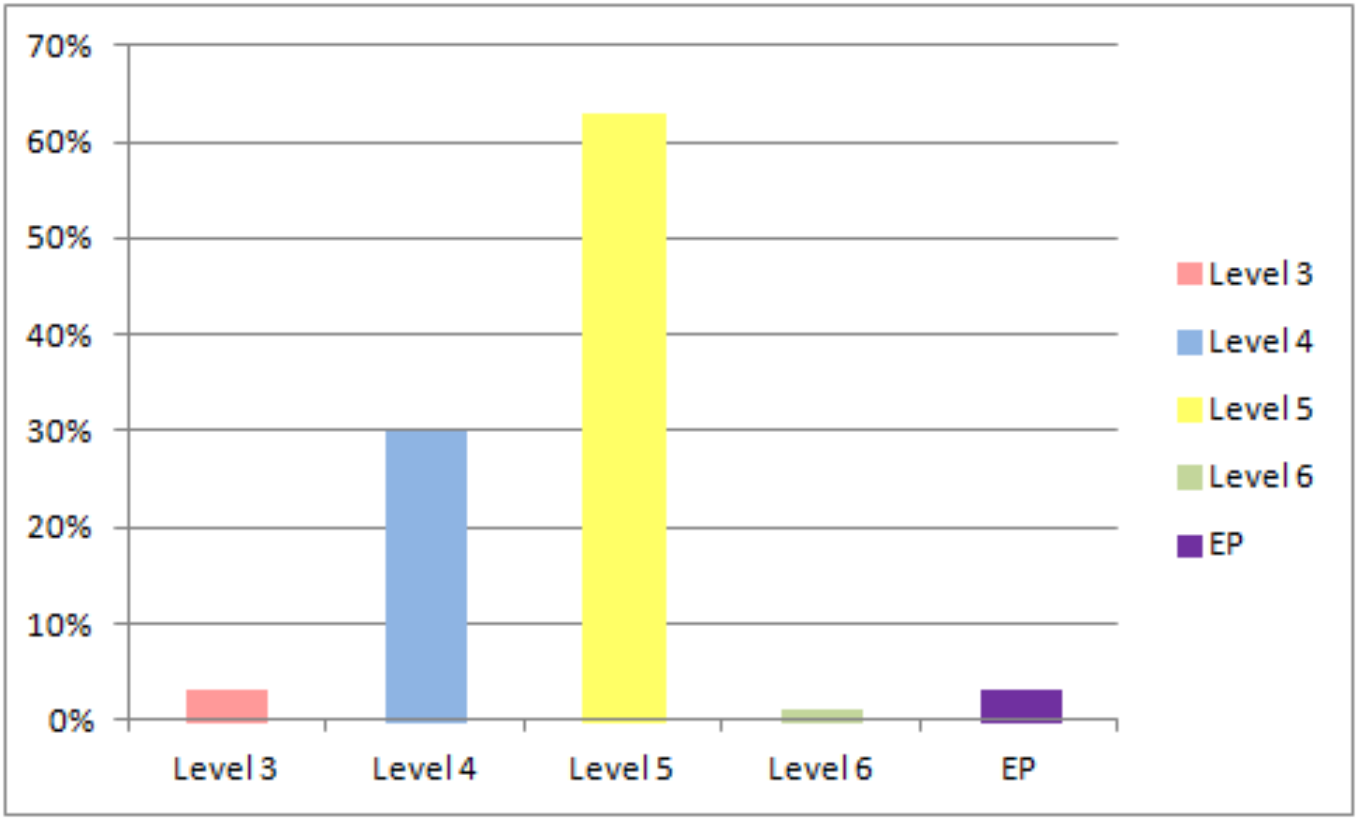
CEM
Centre for Evaluation & Monitoring

Durham University

Full stops, capital letters and question marks are used correctly, and pupils are beginning to use punctuation within the sentence



Paragraphs are well constructed and linked in order to clarify the organisation of the writing as a whole.



Levels – a policy concern

- In a healthy environment, a well thought out level-type system could work
- "The problem is about an accountability regime that encourages primary schools to ensure pupils score a level 4, however insecurely, …" (*Chris Husbands, IoE*)
- Concern is with absolute attainment, not progress

Identifying the issue

- We need solid and informative assessment to support learning in central concepts
- The rich and detailed questioning, probing and support that is needed to achieve quality assessment takes a lot of time and skill

How are people tackling this issue?

- Sticking with the old system
- Trying something new
  - National College for Teaching and Leadership
  - Assessment Innovation Fund
- Panic

CEM
Centre for Evaluation & Monitoring

rham
versity

National College


National College for
Teaching & Leadership

Beyond Levels:
alternative assessment approaches developed by teaching schools

Research Report

September 2014

Julie Lilly, Alison Peacock – The Wroxham transformative learning alliance

Sue Shoveller, Dr d'Reen Struthers – South Farnham teaching school alliance

1

CEM
Centre for Evaluation & Monitoring

Durham University

National College

- Small scale research project involving 34 primary, secondary and special schools
- Tasked with exploring alternative approaches to assessment beyond levels
- Useful examples
- Key finding is about need for educational professionals to have a good understanding of assessment

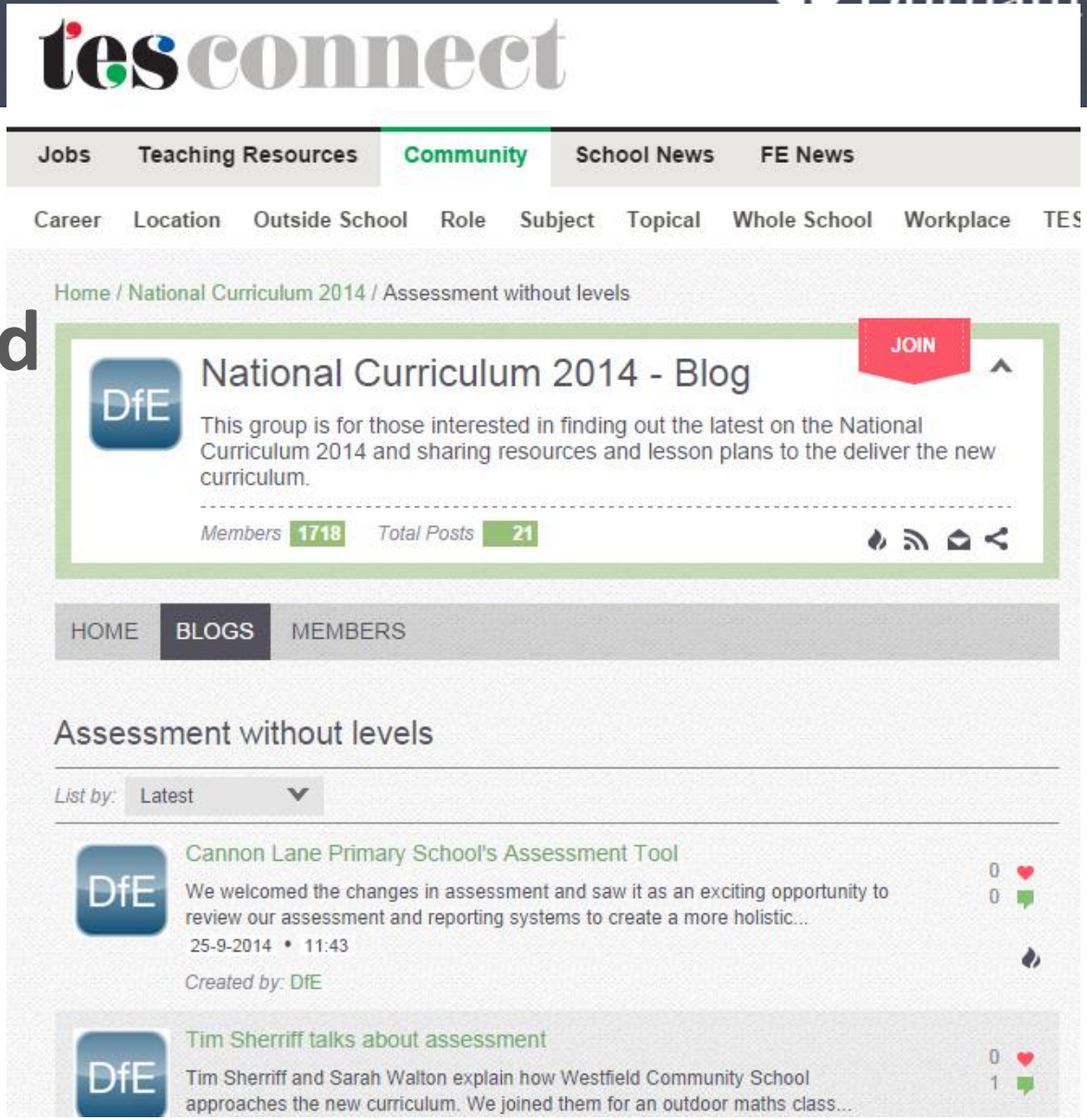
Recommendations

- A culture shift regarding the nature, range and purposes of assessment
- Conferences and seminars to develop assessment expertise
- Development of professional knowledge about emerging, effective assessment practices

CEM
Centre for Evaluation & Monitoring

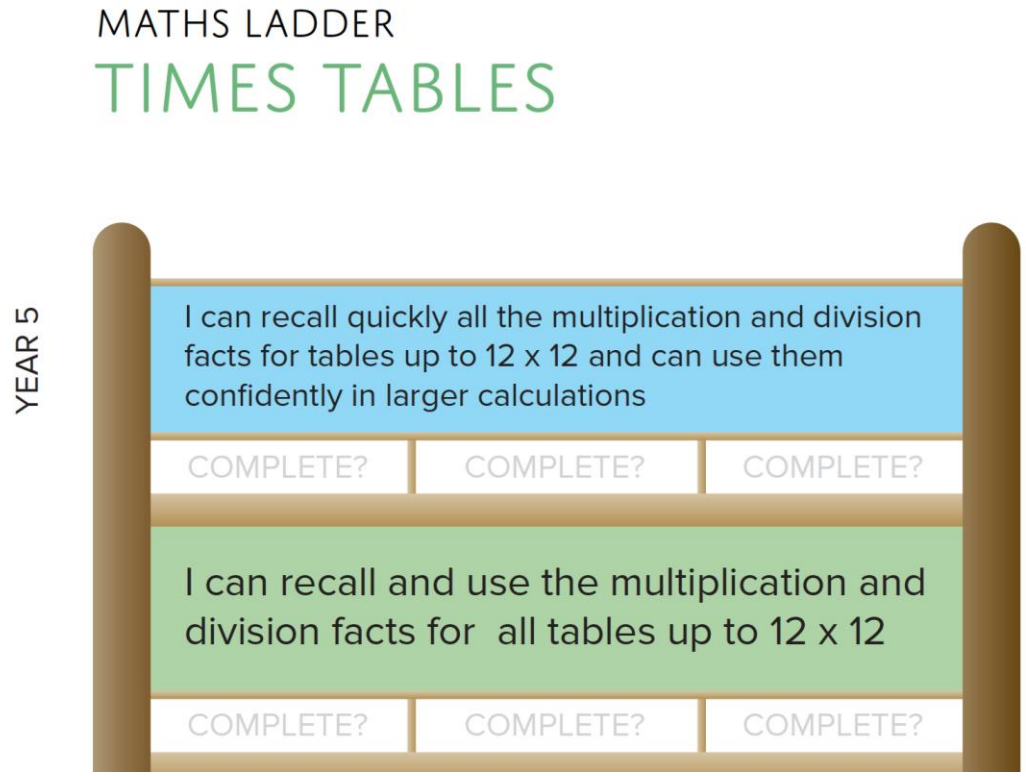
Durham

Assessment Innovation Fund



Learning Ladders

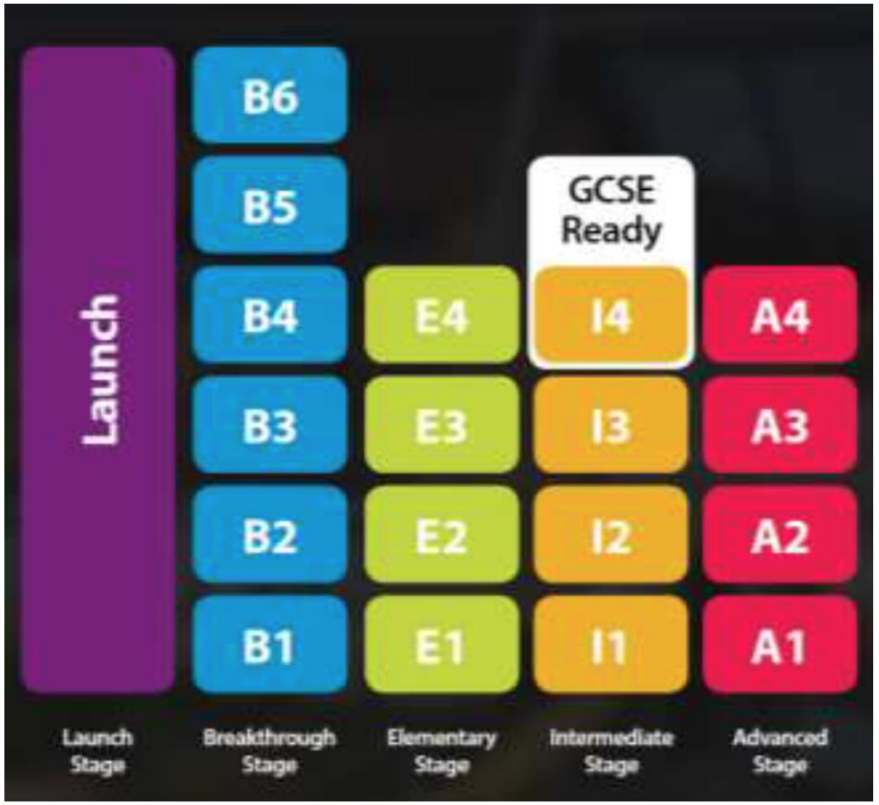
Hiltingbury Junior School (2014) ©Learning Ladders Education Limited
www.hiltingbury-jun.hants.sch.uk/learning-ladders/



CEM
Centre for Evaluation & Monitoring

Durham University

Mastery Pathways



Trinity Academy Halifax (2014)
www.trinityacademyhalifax.org

CEM
Centre for Evaluation & Monitoring

Durham University

HOME / BLOG CATEGORIES / ARCHIVE / INFOGRAPHICS

TEACHING AND LEARNING / DECEMBER 6, 2013

MOVING BEYOND NATIONAL CURRICULUM LEVELS

http://www.huntingenglish.com/

Huntington

- “The national one-size-fits-all approach invariably doesn’t work.”
- Spreading assessment criteria thinly to cover every eventuality means assessment levels are generic and vague to the point of being ineffective

Huntington

- Redefining the KS3 English curriculum
- Rooted in 'big ideas' of English literature
- Starting with identifying threshold concepts
- "Don't assess everything that moves, just the key concepts" (*Tim Oates*)

CEM
Centre for Evaluation & Monitoring

Durham University

Redefining curriculum and assessment

Begin with the students	What tools does the 'ideal' English student at this school possess?
Move to the big ideas	What are the key threshold concepts in our subject discipline they must master for success
Decide what concepts matter most and drop any extraneous content	What do we need to drop and what is essential that we deepen?
Make the outcomes match the 'threshold concepts'	What outcomes will best ensure that students learnt the subject knowledge and threshold concepts most deeply
Spend time refining the criteria of each outcome	What refined assessment criteria will best focus students on the essential knowledge and skills of the subject area?
Design a formative assessment model to communicate effectively	How best do we communicate progress to students, to parents and to wider accountability systems?

CEM
Centre for Evaluation & Monitoring

Durham University

What might an effective and manageable assessment framework look like?

Key elements

- Good understanding of what it is the pupils need to know
- Good techniques for checking that they know it
- A hypothesis as a starting point
- A sense check along the way
- A recording system and communication structure
- Continuing engagement and discussion about assessment

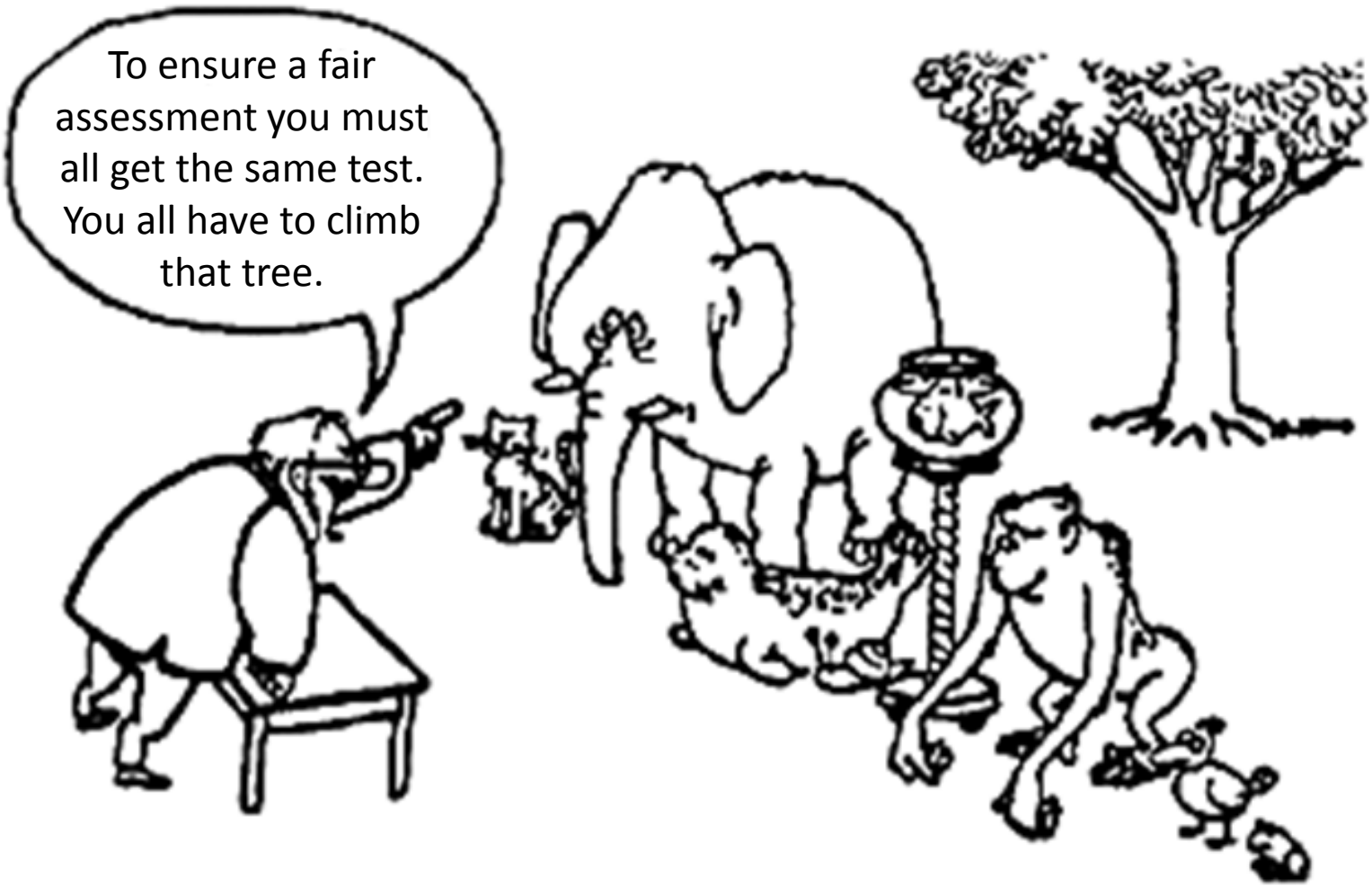
Key elements

- Good understanding of what it [illegible] need to know
- Good techniques for checking [illegible] it
- A hypothesis as a starting point
- A sense check along the way
- A recording system and communication structure
- Continuing engagement and discussion about assessment

Objective, standardised assessment

CEM
Centre for Evaluation & Monitoring

Durham University



CEM
Centre for Evaluation & Monitoring

Durham University

Introducing a system

1. Define threshold concepts
2. Develop toolkit of techniques to gauge deep understanding
3. Introduce external baseline and benchmarking assessment in core subject areas
4. Establish light-touch but meaningful record-keeping
5. Implement effective and understandable communication strategy

Observation

- How do you know that deep learning is happening?

Observation

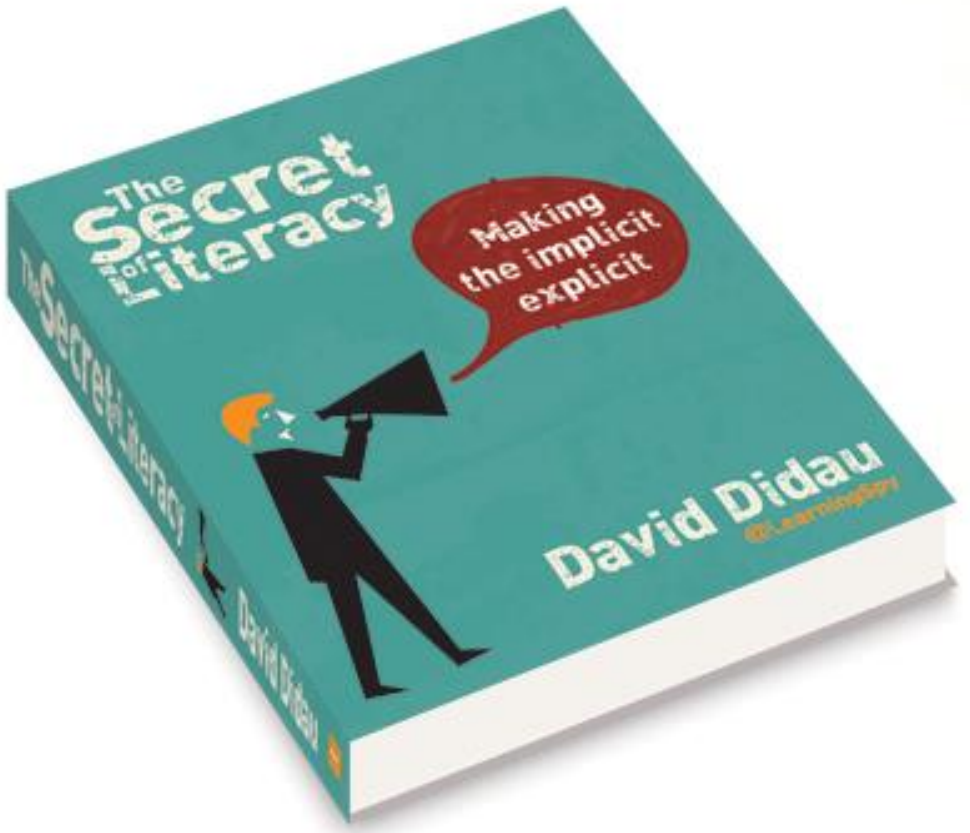
- You might project your own ideas
- … and you might be wrong
- Focus on observables
- What techniques are being used?
- Starter for 10 …

CEM
Centre for Evaluation & Monitoring

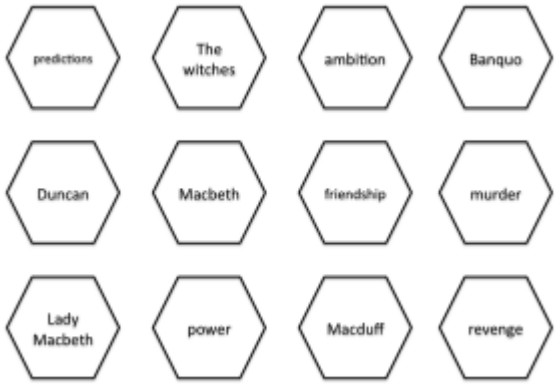
Durham University

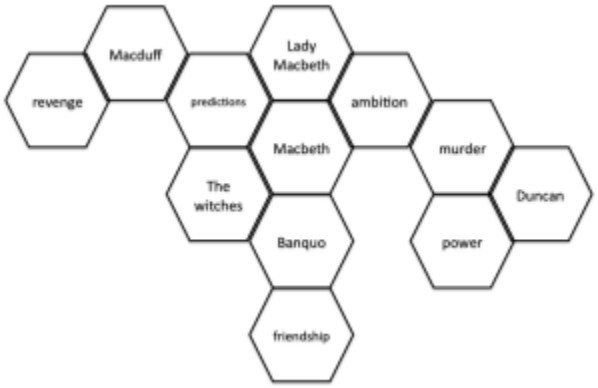
Hexagons

"The Secret Literacy"
David Didau



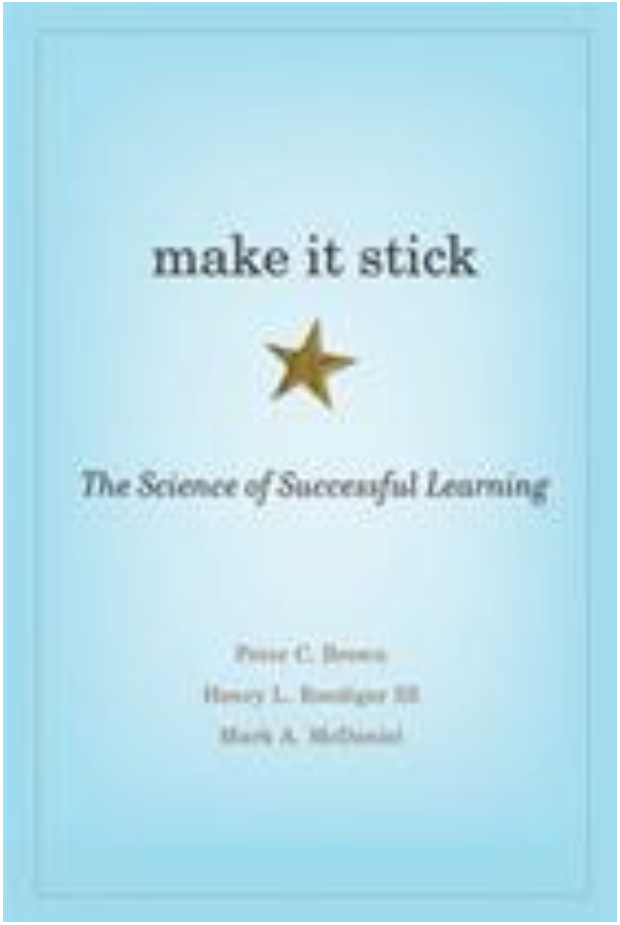
- Tessellate the hexagons
- Put them in order
- Move them around, what changes?
- What is happening at the edges and nodes?





Make it stick

"Make it stick. The Science of Successful Learning"
Peter Brown, Hendry Roediger, Mark McDaniel



Changing your practice

- Massed practice - most people believe that learning is better when you practice-practice-practice
- Spaced practice - come back to the subject
- Interleaved practice – mix the concept up with other concepts

CEM
Centre for Evaluation & Monitoring

Durham University

Newman's blog

Somewhere to collect my thoughts about teaching & learning

← Questioning

Spaced out →

Please sir, can we do more tests?

Posted on August 7, 2014

What are the most effective learning strategies?

Look the following 10 learning strategies. By yourself, or with colleagues, put them in order of what you believe to be their effectiveness for helping students learn.

Search

Recent Posts

- Learning to ski and working memory
- Elaboration and generation
- Interleaving and variation
- Spaced out
- Please sir, can we do more tests?

Recent Comments

http://cnewmanblog.wordpress.com/

- **Interleaved practice**: implementing a schedule of practice that mixes different kinds of problems, or a schedule of study mixes different kinds of material, within a single session
- **Elaborative interrogation**: generating an explanation for why an explicitly stated fact or concept is true
- **Practice testing** : self-testing or taking practice tests on to be learned material
- **Distributed practice**: implementing a schedule of practice that spreads out study activities over time
- **Self-explanation:** explaining how new information is related to known information, or explaining steps taken during problem solving
- **Rereading**: restudying text material again after an initial reading
- **Highlighting and underlining**: marking potentially important portions of to be learned materials while reading
- **Summarization**: writing summaries (of various lengths) of-to-be learned texts
- **Keyword mnemonic**: using keywords and mental imagery to associate verbal materials
- **Imagery for text**: attempting to form mental images of text materials while reading or listening

CEM
Centre for Evaluation & Monitoring

Durham University

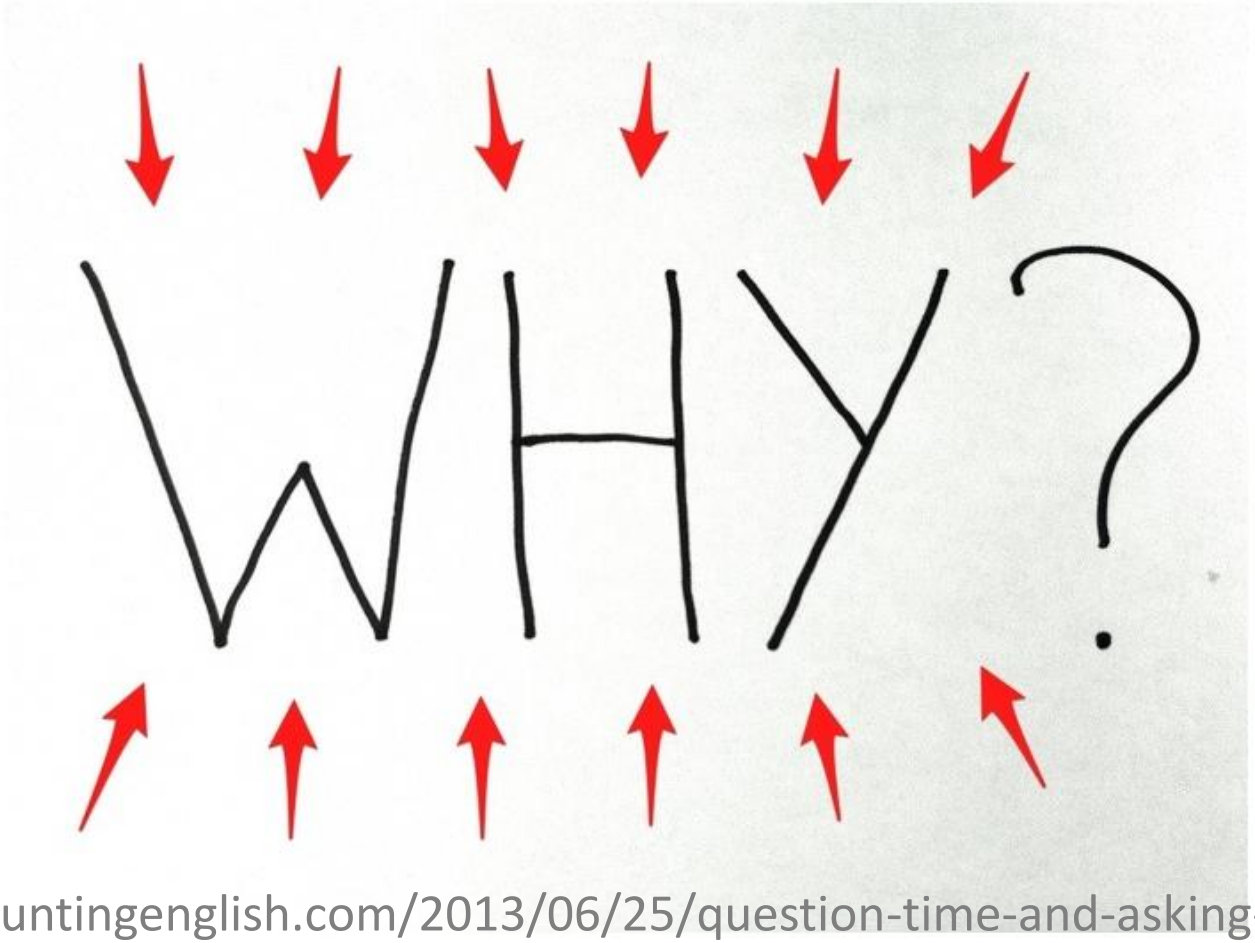
Technique	Extent and conditions of effectiveness
Practice testing	Very effective under a wide array of situations
Distributed practice	Very effective under a wide array of situations
Interleaved practice	Promising for maths and concept learning but needs more research
Elaborative interrogation	Promising, but needs more research
Self-explanation	Promising, but needs more research
Rereading	Distributed rereading can be helpful but time could be better spent on using another strategy
Highlighting and underlining	Not particularly helpful, but can be used as a first step toward further study
Summarisation	Helpful only with training on how to summarise
Keyword mnemonic	Somewhat helpful for learning languages but benefits are short-lived
Imagery for text	Benefits limited to imagery-friendly text, and needs more research

Taken from *'Strengthening the Student Toolbox – Study Strategies to Boost Learning'* by John Dunlowsky. http://www.aft.org/pdfs/americaneducator/fall2013/Dunlosky.pdf

CEM
Centre for Evaluation & Monitoring

Durham University

'QUESTION TIME' AND ASKING 'WHY'



http://www.huntingenglish.com/2013/06/25/question-time-and-asking-why/

Asking why

- Knowing what the students know, and what they don't know, and what they think they know but don't, is crucial for a teacher in accurately identifying what students are learning and understanding
- In fact, it takes six to seven hours for a typical student to ask a single question in class **(Graesser and Person, 1994)**

CEM
Centre for Evaluation & Monitoring

Durham University

Top ten questioning strategies

1. Questions as learning objectives – take the learning objective and turn it into a big question at the start of a lesson
2. If this is the answer, what is the question – simple technique from 'Mock the Week'
3. Thunks – using simple little questions to generate higher order thinking. (If I ask if I can steal your pen and you say yes, is that stealing?)

4. Just one more question – students encouraged to generate a range of quality questions. As topic advances, students encouraged to add one more question
5. Socratic questions – six steps of Socratic questioning
6. Pose-pause-pounce-bounce – the pause is crucial and backed by good research http://www.youtube.com/watch?v=029fSeOaGio
7. Hinge point questions – swift diagnosis of student progress that can be deepened with a 'why'

8. Question continuum – begins with students devising questions then ordering them by the amount of new thinking they are likely to generate. Students and teachers collaborate on identifying the best 9 questions
9. Questioning monitor – involves students in evaluation and reflection of the questioning process. Track and monitor frequency of teacher and student questions.
10. The question wall – asking students to commit their questions to post-it notes and put them on the wall – perhaps divide into closed and open questions.

And a few more from Mike Gershon

1. Avoid questions that require a single, direct answer, such as: "What is the capital of Mongolia?"
2. Use questions that invite pupils to talk about what they think, such as: "What do you know about Mongolia?" This elicits information in a broader way and the stakes are much lower. This becomes about pupils sharing their thoughts with the teacher and the class.

3. Put pupils in pairs and ask them to talk to their partner first. This alleviates the social awkwardness of being the first to speak and the numerical imbalance between teacher and pupils.
4. Give time to think. Ask a question, then wait, allowing pupils time to analyse the question and consider their answer. Count slowly and silently to 10.
5. Encourage pupils to write something down. This helps free up space in their short-term memory, allowing them to explore the issue in more depth. Also, it means they will have something in front of them that they can reflect on.

http://www.tes.co.uk/article.aspx?storycode=6316213

External objective benchmarking

- CEM systems
- GL assessment PIE and PIM
- Valuable
  - because of their low-stakes nature
  - national norms
  - getting a lot of information fast
  - supporting and informing teacher judgement

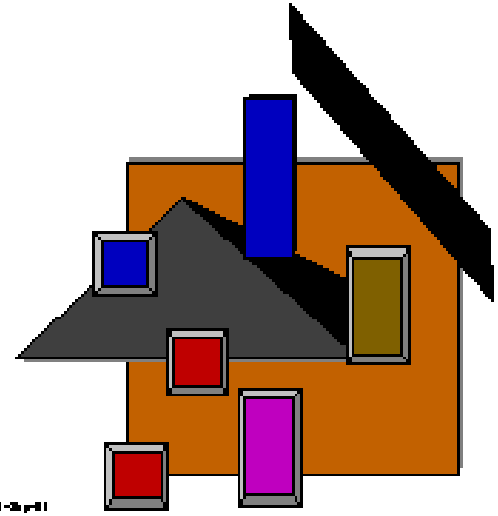
Establish light-touch but meaningful record-keeping

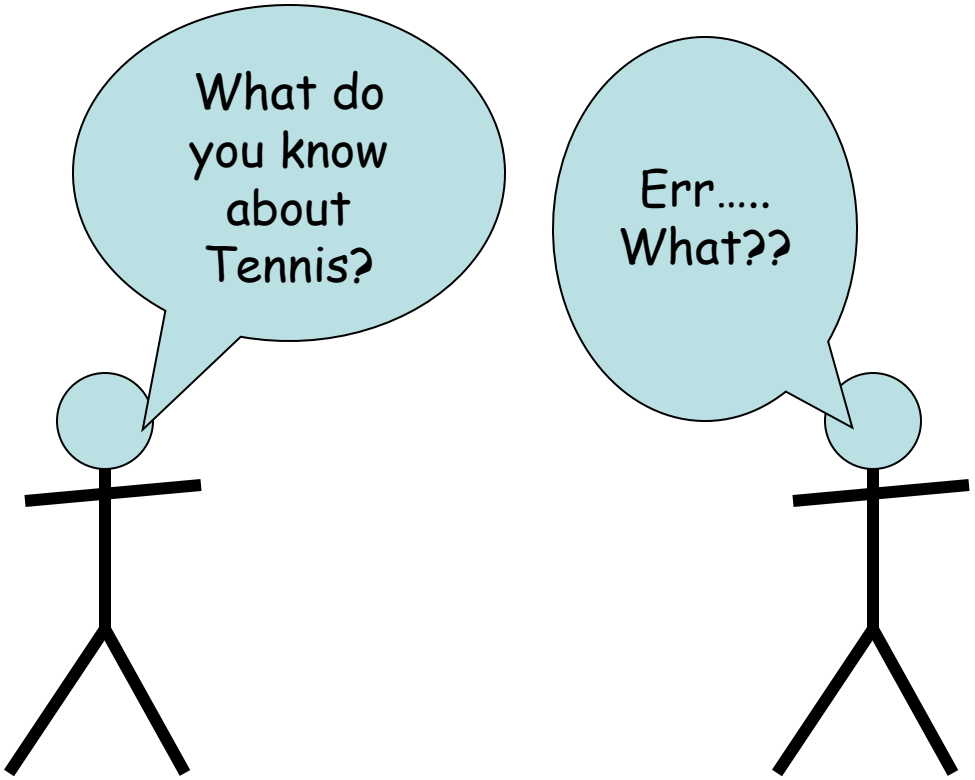
- Needs to be fluid to reflect the jagged trajectory of children's understanding
- Way points and horizons
- Baseline
- Rough grained ---------- fine grained

SOLO (Structure of observed learning outcomes)

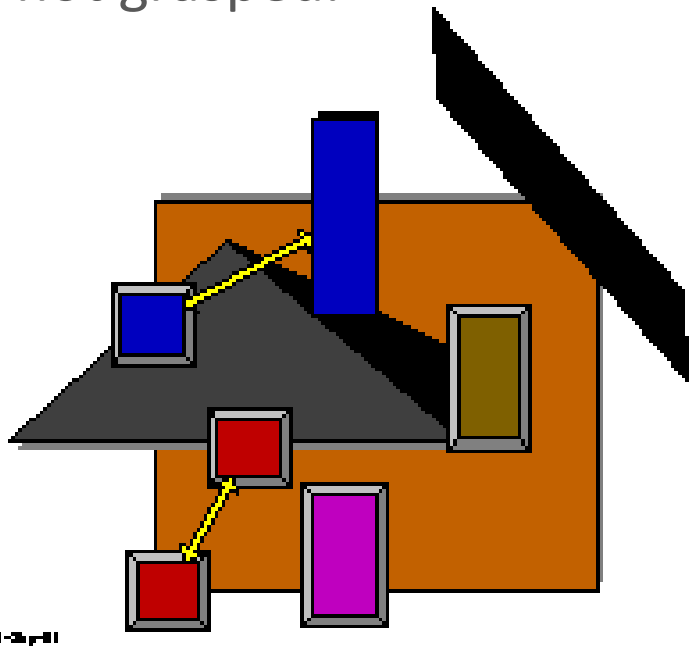
- SOLO taxonomy http://www.learningandteaching.info/learning/solo.htm#ixzz3Eu4RljAl
- Describes increasing complexity of a student's understanding of a subject through five stages
- Across any subject area

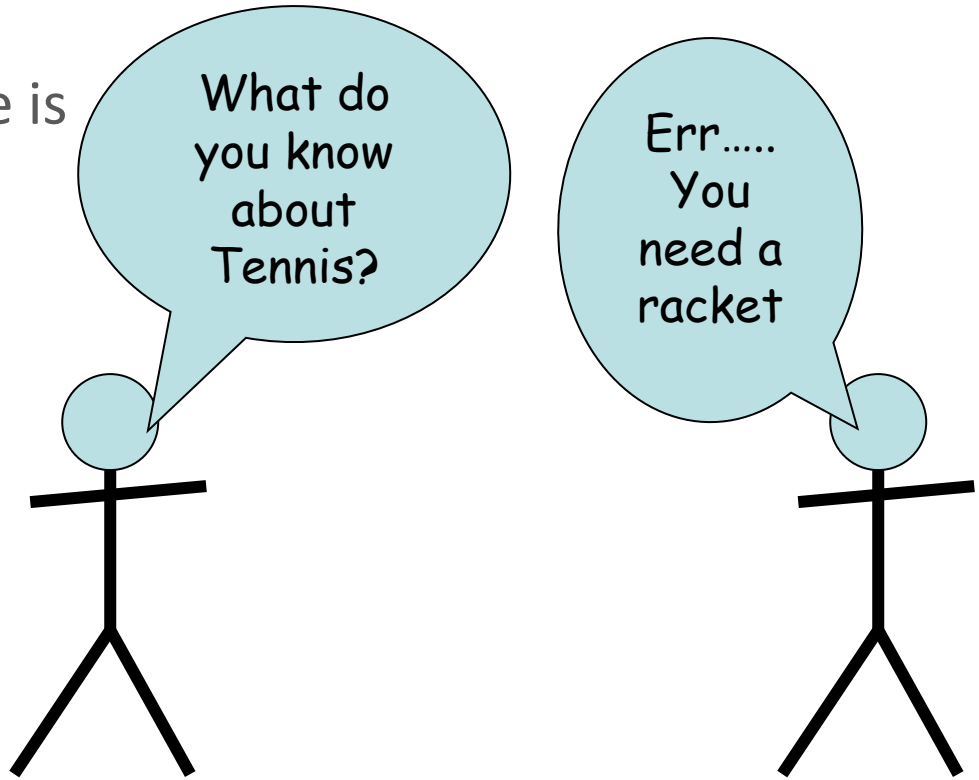
1 Pre-structural: here students are simply acquiring bits of unconnected information, which have no organisation and make no sense.



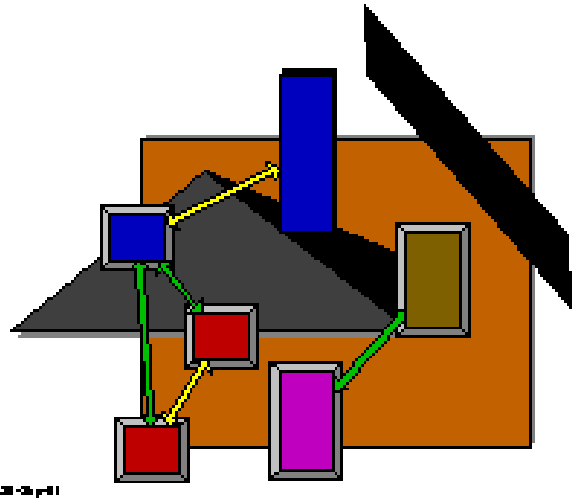


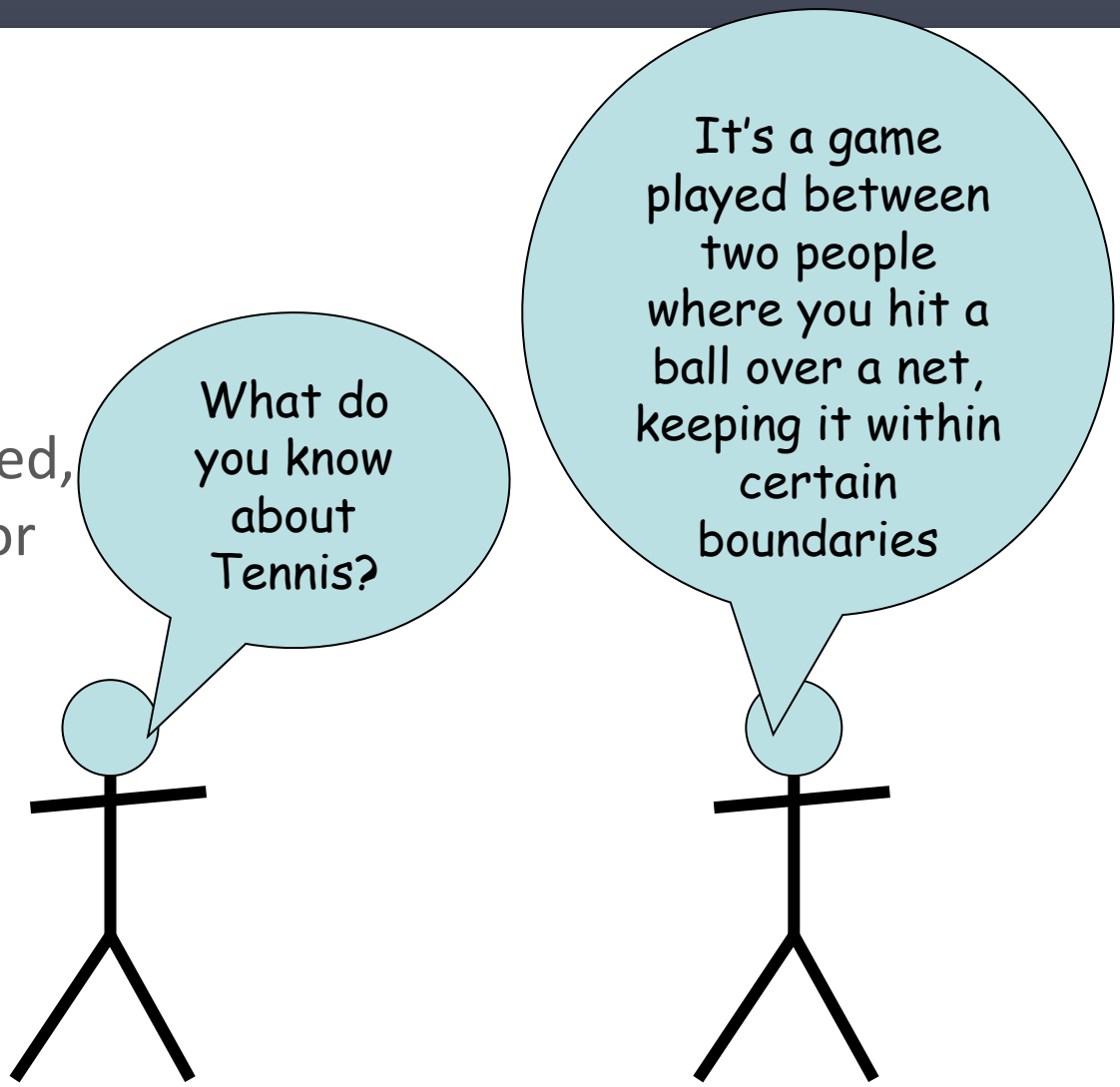
2 Unistructural: simple and obvious connections are made, but their significance is not grasped.



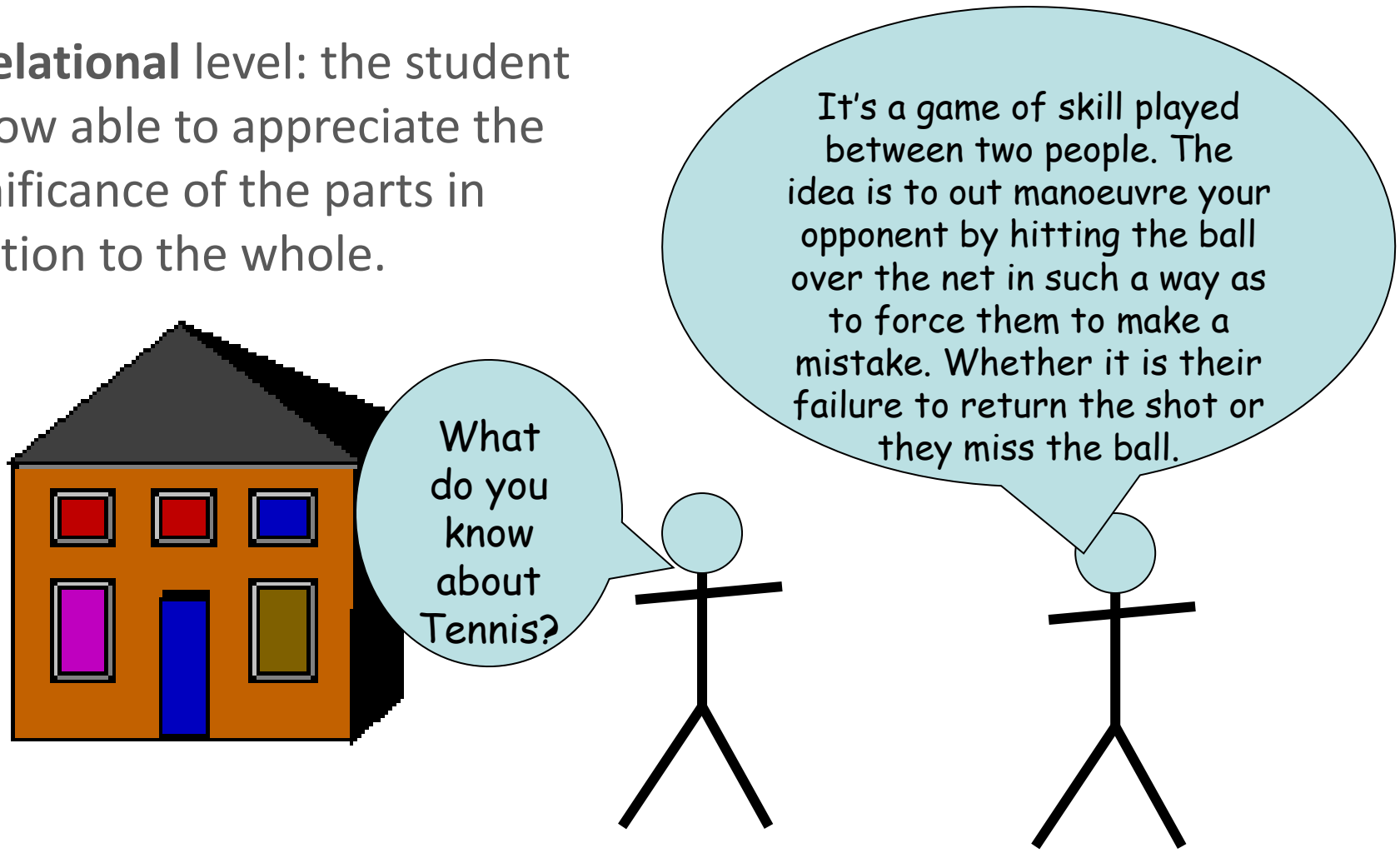


3 Multistructural: a number of connections may be made, but the meta-connections between them are missed, as is their significance for the whole.





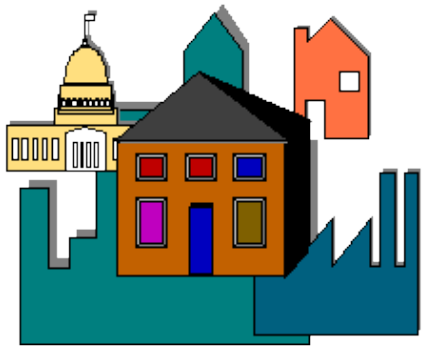
4 Relational level: the student is now able to appreciate the significance of the parts in relation to the whole.

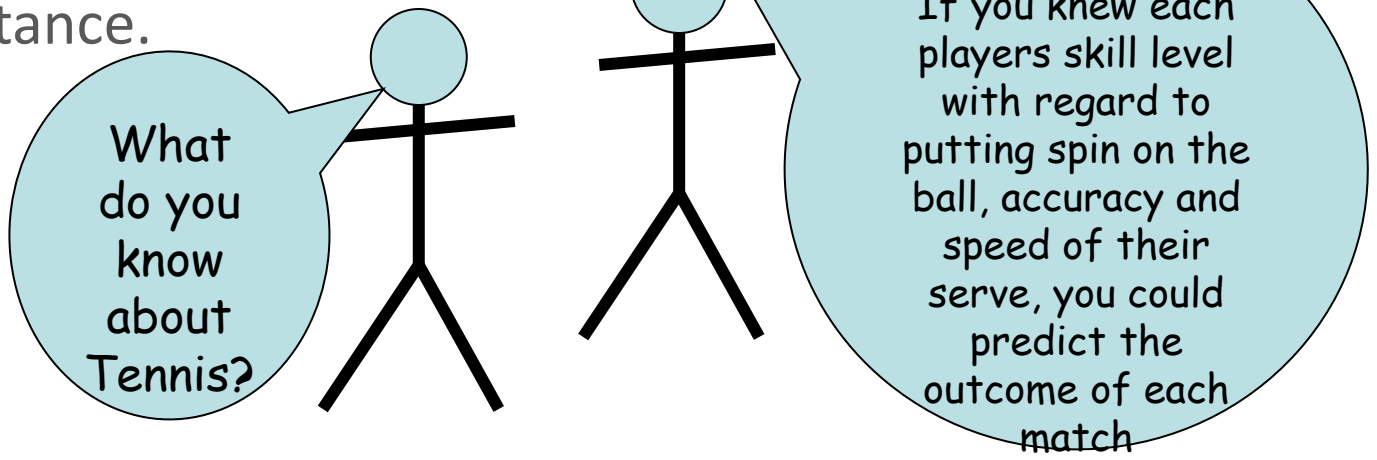


CEM
Centre for Evaluation & Monitoring

Durham University

5 At the **extended abstract** level, the student is making connections not only within the given subject area, but also beyond it, able to generalise and transfer the principles and ideas underlying the specific instance.





SOLO

- Borrowed from http://keycompetencies.tki.org.nz/content/download/675/4839/file/SOLO%20explained%20ppt.ppt
- Useful for questioning, gauging threshold concepts
- And monitoring

CEM
Centre for Evaluation & Monitoring

Durham University

		Prestructural	Unistructural	Multistructural	Relational	Extended Abstract
		Children don't have any real knowledge or understanding of the topic being studied.	Information makes sense, but children have limited knowledge.	Children have a range of information, but meta connections between the information and learning are not made.	The children see the significance of how various learning and knowledge relate to one another. Children are able to link together and explain several ideas around a related topic.	Children can make connections beyond the scope of the problem or question. They generalise or transfer learning into a new situation. They can also link learning to other bigger ideas and concepts.
extending and applying the grammatical knowledge set out in English appendix 2 to the key stage 1 and 2 programmes of study to analyse more challenging texts		John L, Ellen, Sarah, Kate B, Elizabeth	Beth, Georgia, Lily	John, Omar, Ebony, Isaac	Paddy, Ellen, Toby, Bilal	Harry, Jasmine, Emma
studying the effectiveness and impact of the grammatical features of the texts they read		Georgia, Lily	John, Omar, Ebony, Isaac, Beth	Paddy, Ellen, Toby, Bilal	Harry, Jasmine, John L, Emma, Ellen, Sarah	Kate B, Elizabeth
drawing on new vocabulary and grammatical constructions from their reading and listening, and using these consciously in their writing and speech to achieve particular effects						
knowing and understanding the differences between spoken and written language, including differences associated with formal and informal registers, and between Standard English and other varieties of English						
using Standard English confidently in their own writing and speech						
discussing reading, writing and spoken language with precise and confident use of linguistic and literary terminology*						

Winding up

- Teachers are good at assessment
- More confidence is needed
- Life without levels won't be all that bad

CEM
Centre for Evaluation & Monitoring

Durham University

katharine.bailey@cem.dur.ac.uk

www.cem.org