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Chalkface. Learning Power.

What and why

A learning conversation



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The threads that link these slides together:

Learning is Learnable

Some of our beliefs about learning may not be born out by research

Some of our actions may, unintentionally, act against good learning

Aim of the discussion: To consider/explore what we believe about learning and what research says about learning

Objectives: By the end of the discussion participants will have:

- Discussed and considered 6 key issues around learning;
- Reflected on what research says about learning;
- Considered what this means for classroom practice.

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A conversation about learning

Provocations

1. Learning is learnable
2. To focus on learning might compromise standards
3. High achievers are generally very good learners
4. Spoon-feeding gets results
5. Students become independent learners as they move through their school careers
6. If we develop 'growth mindset' language with our students they'll become better learners

How

- 6 groups
- 1 statement per group
- Use PEE
 - What's your point of view?
 - What evidence can you cite?
 - How would you explain it to others?
 - Oh! and what are the implications for teachers?
- 10 mins discussion in your group



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Key Points

“Make up your own groups”

- Allocate the statements to the groups
- Allow 10 mins for group discussion
- Encourage groups to look up evidence if needed
- Allow 5 mins for each group answer and your subsequent input
- 45 mins for whole exercise

Background notes

Starter activity to engage participants, draw out from them and/or develop a shared understanding of the background to the learning agenda, and surface fears and anxieties.

You need to have 6 groups, one each to discuss the 6 statements – this could be in pairs for a small audience, in 5s for a whole school inset etc. Ask each group to discuss their statement, focusing on.

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Point	Evidence ☐	Explain
Sum up the main idea	Provide evidence for your point you are making	Why is the quotation significant? What effect does the quotation have on the reader? Why has the writer used this technique?
• In my opinion... • Arguably... • The writer uses... • Similarly... • Both... • In contrast... • One of the language features used is...	• For example... • An example of this is... • This is shown... • This can be seen... • This is demonstrated when... • We know this because... • The evidence for this is...	• This shows... • This suggests... • This implies... • This is effective because... • The writer has chosen this technique because... • This would make the reader feel... • This has been used because...

(In case you haven't met it before).



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Skip slide if teachers already aware of PEE.

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1. Evidence shows that Learning is a Learnable craft...

In cognitive science, a revolution has taken place in the way we think of 'intelligence'. For a while, people believed that it was a fixed-sized dollop of general-purpose mental resource that God or your genes gave you when you were born, whose main effect was to set a ceiling on what you could achieve. We now know that this model is scientifically indefensible, factually incorrect, and educationally pernicious. In fact, there is enormous room for everyone to get smarter by developing their 'learnacy'.

"I have heard about penicillin, but I have more experience with leeches, so let's give them a try"



Prof. Guy Claxton



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Key Points

- The key to what we are about
- If learning isn't learn-able BLP is barking up the wrong tree
- Allow participants to read quote
- Click to add Prof. Guy Claxton as author
- Prof. Claxton is the cognitive psychologist behind Building Learning Power.
- His research through the ELLI project at Bristol University led to the frameworks that we will explore and use.
- Click to add a humorous throw-away:
- Would you go to a GP like this ?
- Are we in danger of holding on to teaching strategies that have been superseded by developments in cognitive science and neuroscience ?
- Do we organise learning in C19 ways despite C21 understanding of how children learn ?

Background notes

This is key, because if learning is not learnable, BLP is barking up the wrong tree !

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2. Evidence shows that a focus on learning enhances performance. . .

- 'The evidence leads to the conclusion that learning about learning is a practically viable and educationally important strategy which also has the effect of improving performance'
- 'Performance pressure does not help to improve performance'
- 'A focus on learning can enhance performance, whereas a focus on performance (alone) can depress performance. The effects of performance orientation include greater helplessness, reduced help-seeking, less effective strategy use, increased use of ineffective strategies, and a greater focus on grade feedback'



Chris Watkins



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Key points

- When pupils are helped to become more confident and independent as learners, and more articulate about the process of learning, **their results go up.**
- Click to reveal each of 3 statements from research quoted by Chris Watkins - Institute of Education, University of London
- Mention other pertinent snippets from this paper if time

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3. Evidence shows high achievers are vulnerable

'I guess I could call myself smart. I mean I usually get good grades. Sometimes I worry though, that I'm not equipped to achieve what I want, that I'm just a tape recorder repeating back what I've heard. I worry that once I'm out of school and people don't keep handing me information with questions...I'll be lost.'

Emily, aged 15



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Key points

- Give time for participants to read quote
- Even the most seemingly assured learners can be vulnerable
- Rarely stretched, unused to having to try and fail
- The highly successful student who's first taste of failure is the driving test at 18 . .
- Or at University being a relatively small fish in a big pond . . .
- Emily may be familiar to you
- How does this description resonate with you?
- Do you know some Emilys?
- Were you an Emily?
- Make the point about good students vs good learners
- Offer research examples e.g. Dweck
- Allow time to discuss this

4. Spoon feeding gets results

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Pedestrian is definitely the word I would use to describe my GCSE English experience. From coursework to prepping for exams, the teachers had an affinity for spoonfeeding. Rather than engaging in class discussions where ideas are exchanged and developed, I and many of my peers passively processed the answers being given to us.



However, as painful as it is to admit, it did result in a successful outcome on results day. The teachers did what they had to do to get us over the line. What they did not do, though, is prepare me for the independence and high level thinking required at A level. Spoonfeeding may have been the answer at GCSE but it certainly isn't at A level. Teachers must identify a limit to spoonfeeding and students must take it upon themselves to seek independence.

The writer is a Year 12 student in London



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Key points:

Spoonfeeding may work, in the short term, but is it good for us ?

This is an extract from an article in the TES written by a year 12 A level student in London in 2017.

The full text is given below:

'Being spoonfed at GCSE got me the grades, but has left me behind at A level'

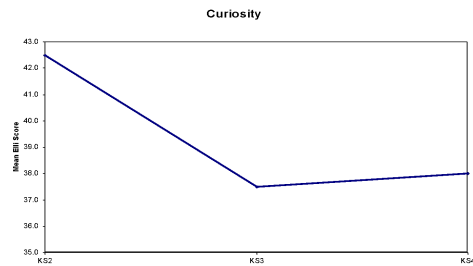
This student explains that she has been left completely unprepared for the independence of study at A level because of the spoon feeding strategies at GCSE

"Does Shakespeare present Othello's fatal flaw of jealousy as the cause of Desdemona's death? Or is Desdemona's naivety a tragic trap that leads to her fatality?" We sit bewildered. So this is A-level English. This wasn't how it was at GCSE. Not at all.

Pedestrian is definitely the word I would use to describe my GCSE English experience. From coursework to prepping for exams, the teachers had an affinity for spoonfeeding. Rather than engaging in class discussions where ideas are exchanged and developed, I and many of my peers passively processed the answers being given to us. This was truly disappointing when the likes of Shakespeare and Andrew Marvell were the topic of discussion – or rather the topic of passive learning.

5. Research shows the Learning Power of critical curiosity declines through school

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Curiosity drops significantly from KS2 to KS3, and makes a marginal but not significant recovery at KS4.

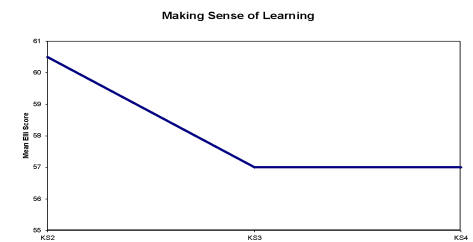


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See the notes on ELLI under slide 14

5. Research shows the learning power making meaning declines

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The ability to make sense of new learning, to understand how it fits with prior learning, and to transfer new learning into other contexts drops significantly from KS2 to KS3, then stabilises.



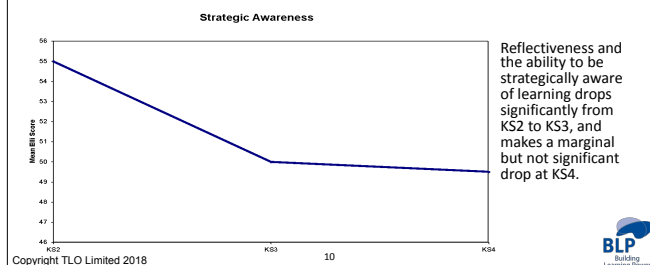
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See the notes on ELLI under slide 14

5. Research shows the learning power of strategic awareness declines

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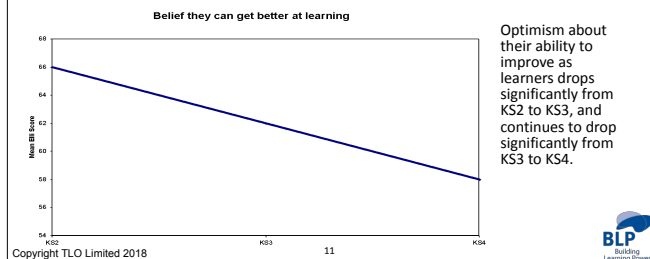
See the notes on ELLI under slide 14



5. Research shows positive beliefs about learning decline

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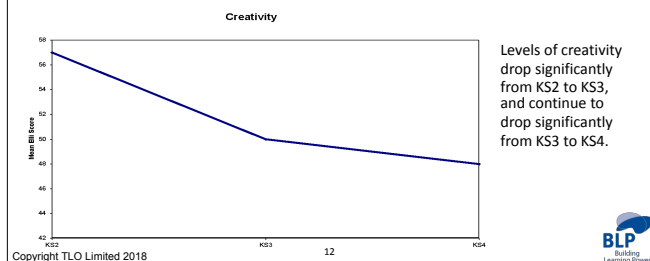
See the notes on ELLI under slide 14



5. Research shows the learning power of creativity drops too

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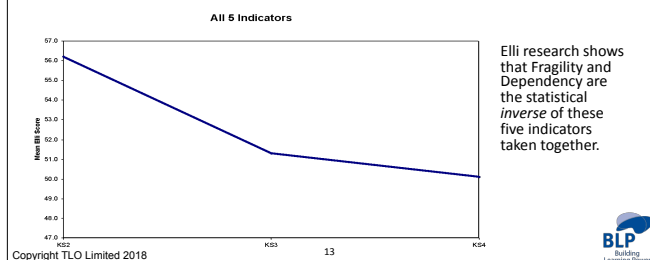
See the notes on ELLI under slide 14



5. Research shows the learning power of resilience falls, and dependency rises

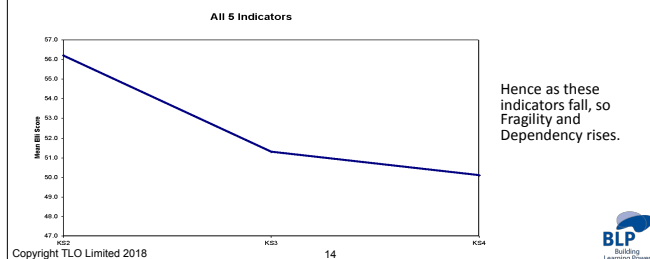
13

See the notes on ELLI under slide 14



5. Conclusion: The longer students stay in school the more dependent they become

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Key points

- Explain graphs
- ELLI project Uni. Bristol 2004
- Basis of Prof Claxton's BLP frameworks
- Show many learning capacities falling in use the longer pupils were in school
- Students were becoming more dependent more spoonfed

Background notes

Recent research is broadly showing that the longer students stay in school, the more dependent they become (on self-report, ELLI research)

- Significant drop even though KS2 starting point not very high
- Explain more of research findings of appropriate

Final graph is a composite of several results in the Bristol University ELLI project. The research found that all the key learning dispositions (ELLI have 7 rather than BLP18) were found to be dropping in use from KS2 to KS3 and beyond, the worst casualty being creativity. The research is based on students' self-reports.

5. Students gain independence

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Key points

- To what extent does this picture evoke 'schooling today'?
- Period? (Edwardian)
- Place? (Serpentine, London.)
- Children being 'taught' to swim.
- Presumably at some stage the instructors progressively remove the life jackets and supports and let the children 'swim free'
- How well do we release the learning 'supports'?
- or do we actually tighten them as the exam system bites?



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6. Fixed mindset

- Born smart or dumb
- I prove/believe it
- Conservative learning
- Hate or expect mistakes or failure
- Don't see point of making an effort
- Prepared to blame, cheat to maintain that view
- Competitive




Carol Dweck



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Key points

A quick dip into mindsets thinking

Explain bucket and balloon mindsets

Ask whether they recognise any of these behaviours in their children

Background notes

There is an interesting example of training mindsets on page xx The Learning Powered School

Tell the story if time. Emphasise that these changes began to take place after 3 weeks into the experiment.

The experiment had to be halted. Both groups were treated as growing learners



6 Growth mindset...expandable ability

- Get smarter
- Can improve
- Adventurous
- Failure/mistakes useful
- Effort pleasurable
- Try, open, commit
- Collaborative, generous




Carol Dweck



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How we would like all learners to be.

Focus on effort

- Born smart
- I prove it
- Conservative learning
- Hate mistakes or failure
- Don't like making an effort
- Prepared to blame cheat
- Competitive



- Get smarter
- Can improve
- Adventurous
- Failure/mistakes useful
- Effort pleasurable
- Try, open, commit
- Collaborative, generous






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Key points

Ask participants whether they can estimate the sort of % of pupils in each category in their class.

Interesting to see if this changes as the children go through the school. Are there generally more buckets in year 6 than 5 and so on? Why might this be?

Dweck now concerned that her work has been misinterpreted. Not just about having a belief that you can get better. *Believing you can get better is an essential first step, but the belief in itself is not enough - you have to be prepared to act on the belief.* You need the strategies to do it. Dweck sees BLP as building on her work offering a real way to 'do it'.

Growth mindset: moving attitudes and beliefs

- | | |
|---|--|
| <ul style="list-style-type: none"> From • Not good at this • I'm awesome at this • I give up • I can't get this any better • I just can't do maths • I made a mistake • I'll never be smart • It's good enough • Plan 'A' didn't work | <ul style="list-style-type: none"> To • What am I missing? • I'm on the right track • I'll use another strategy • I can improve so I'll keep going • I can train my brain in maths • Mistakes help me to learn better • I'll figure out how to do it • Is it really my best try? • There are more I can try. |
|---|--|

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The beliefs that we need to counteract on the left, and the ones we want to encourage on the right.

Ideas about learning and your brain

- Is Learning Learnable?
- Old idea
 - intelligence is fixed
- Research into the brain
 - mind is improvable
- Intelligence is
 - 'the sum total of habits of mind'
 - Resnick
- Habits can be changed and developed
- Intelligence is
 - 'knowing what to do when you don't know what to do'
 - Piaget
- Getting stuck is the liberating point, when learning begins



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Key points

Important scene for explaining the research background to BLP.

We now know L2L is possible

New ideas on nature of intelligence

Profession has duty to use these new ideas in teaching

Currently students are spoon fed

Students need to be prepared for a fast changing world

Background notes

This scene draws together a range of arguments that together make up a convincing case for BLP. It is about shifting the focus from teaching to learning and developing the habits of lifelong learners.

The flow of the argument goes like this:

- Ideas about intelligence have moved on as research into the brain continues at a great pace.
- We know that learning is itself learnable and ideas about intelligence (Resnick/Piaget) confirm this.
- As professionals in the learning business we need to use these ideas (even have a duty to).
- Research into what has been happening in schools suggest that the longer students stay in school the more dependent they are becoming (spoon feeding).
- Students need to be prepared for a lifetime of learning and the skills to deal confidently with whatever life throws at them.