London Gifted & Talented

Fostering curiosity and engagement.

How can we create interesting and meaningful hooks?

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The London Challenge
For world class education

London Gifted & Talented

- London Gifted & Talented is an organisation that was established within the London Challenge to stretch and challenge more able students and build the capacity of their educators to do the same
- Since 2003 we have directly worked with well over 4,000 schools and 15,000 teachers across all 33 London Boroughs and nationally
- In addition, more than 160,000 educators worldwide have used our award winning online resources on *www.londongt.org*
- In Europe we have worked with governments and networks of schools and universities in Finland, Romania, Holland, Germany, Hungary, Kazakhstan and the Ukraine.
- Worldwide we have advised schools, universities and cities across Africa, the Middle and Far East and the USA.

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Learning Outcomes - this session will explore how to..

Present ideas as live (go off piste)

Stress the big ideas and concepts

Set up ambiguity, complexity, and doubt (plan in difficulty)

Investigate a variety of narratives

Focus on core texts

Take the 'spoon-feeding' stabilizers off (reduce safety and mimicry)

Set up sticky situations (explore desirable difficulties)

Create interesting hooks

Utilize real-world problems

Share what made you excited

Interleave and sequence learning tasks

Normalise extended responses

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Trailers

Trailers are not 'mini-films'. They are a genre in their own right and have their own set of easily recognisable conventions.

Trailers are designed to capture our attention and hold it for a short space of time. They give us just enough information to raise our curiosity but not enough to spoil the story of the film. They create a mood or atmosphere and heighten our anticipation of what is to come.

In short, they tease but they don't tell.

Trailers

In some ways watching a trailer is like doing a jigsaw puzzle at high speed - we are given some information as to plot and character and our task is to fill in the missing pieces in the time available. The style in which the information is conveyed is fast-moving and requires our attention one hundred per cent of the time. To watch a film at this pace would be impossible - we could not cope with the input and would 'switch off'. However, we enjoy the roller coaster effect of a trailer and the mental challenge it presents.

Trailers

They highlight the 'best bits' of the film

We are not shown the story in narrative order

Some visual images stay on screen for only just enough time for our mind to realise what we are seeing

Conversations between characters usually consist of one line each

Unusual angles are often used to show events or characters

Action is interspersed with credits on screen

Voice-overs are used to tell the story and give credit information

Music plays an important role in creating atmosphere

The title does not appear until the climax at the end

Outstanding schools - feedback

*A more specific focus is needed to more effectively challenge the students as they tend to **unknowingly get by** with 'second best work' and don't really have a clear enough idea about what real expertise and scholarship might look like across subjects, how difficult that is to achieve, how to substantially improve their work and what students in other school are achieving on a regular basis.*

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Outstanding schools - feedback

*There is a danger that this school leaves teaching to the top standards too late in the students trajectory - there is **too little difficulty** introduced into the lower school curriculum where there is far less pressure and the GCSE, with its emphasis on more content, is not offering sufficient cognitive challenge*

Outstanding schools - feedback

Students here don't really seem to understand the substantial levels of commitment necessary to achieve top grades - this may have been encouraged by ***years of spoon-feeding and tutoring*** *that needs to be unwound, too little academic discussion and probing in lower school (and at home) and a misunderstanding about what the school really prizes in terms of rounded and grounded students.*

Outstanding schools - feedback

*There were many discussions observed where the views of students were often not particularly thought through or detailed. There was also **little explicit interrogation** by teachers of the views when they were offered. Encouragement takes the place of rigour. There was virtually no genuine student struggle in lessons and very few risks were taken or mistakes observed. There is a clear need for subject specific criteria for the early identification of the more able and to offer the learners the chance to see the skills and behaviours that distinguish top achievement.*

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Outstanding schools - feedback

*Students were very rarely asked to **do anything on their own** and then feedback. Teachers were supplying the answers, and constantly on demand and paraphrasing and expanding on the students first responses. This could have serious consequences for when they are in exam situations when all scaffolding and support will be absent.*

How do we see learning…?

Choosing a metaphor for teaching and learning is a highly consequential activity…

It impacts on how we see ourselves, learners and learning

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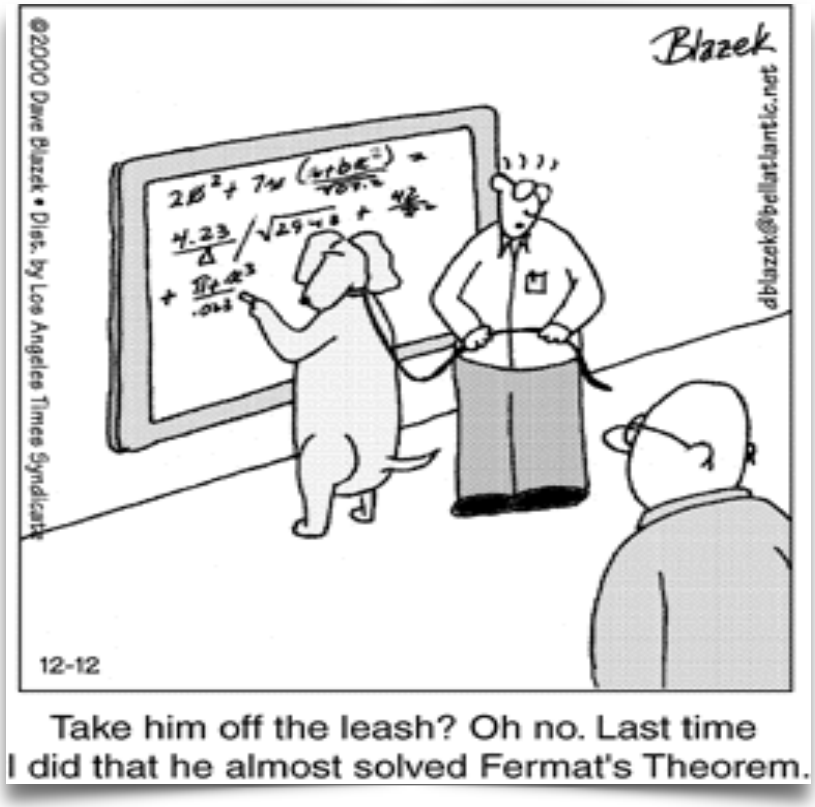
The big three meta-metaphors

Transmission (sage on the stage)

Facilitation (guide on the side)

Catalyst (agent provocateur)



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How aware are you of how you see what you do?

Transmission (a sculptor or a gardener?)

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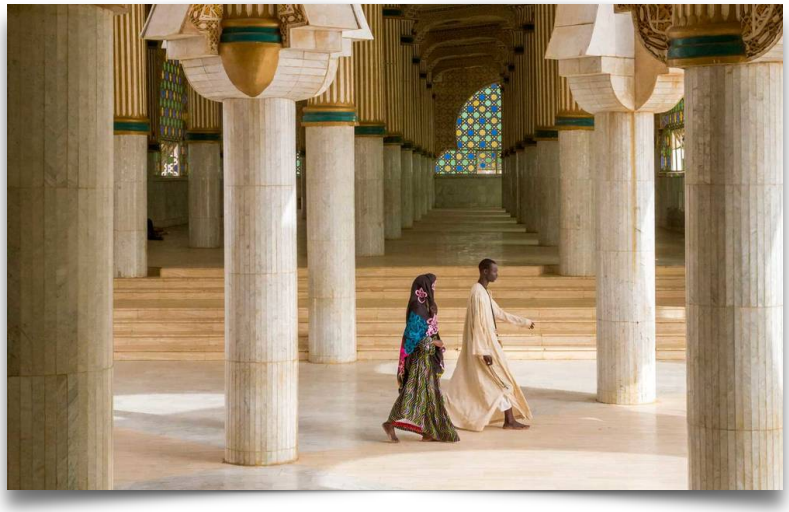
We need to question the premise of what we are doing

Facilitation (a tour guide or a coach?)



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We live by our metaphors

Catalyst (lightning rod or fire-starter?)

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Metaphors and mysteries

- Piaget's stepped linear stage theories have unhelpfully dominated the way we see the process of learning.
- Learning is more like overlapping waves, a gradual ebbing and flowing of frequencies of alternative ways of thinking with new approaches being added and old ones being eliminated.
- Slipping backwards is an essential part of the process of integrating new and troublesome concepts into our mental webs.
- Research suggests immediate and too directive feedback is not helpful. It outsources the 'what to do next' difficulty to teachers. Think of the issues around GPS navigation devices…

The impact of excellence

"I believe that work of excellence is transformational. Once a student sees that he or she is capable of excellence, that student is never quite the same. There is a new self-image, a new notion of possibility. There is an appetite for excellence. After students have had a taste of excellence, they're never quite satisfied with less; they're always hungry." (Berger)

The illusion of knowledge

*'When material is familiar we believe we know it when actually all we really know is that we once knew it. This matters because when we think we know something we stop thinking about it. When we know we don't know something we carry on thinking…The trick, if there is a trick, is to expose students to the extent of their ignorance so they continue thinking about what they don't know.' (*Didau*)*

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Need to question the premise of what we are doing

Where are we willing to challenge ourselves? Focus on what we may not be doing so well for the learners in our care. It is up to us to light our own small fires in the darkness.

- How best to stimulate intellectual curiosity in our subject?
- How do we ensure that students stay engaged with difficulty?
- What does an appropriate level of challenge and progress look like?
- What barriers can communities create?
- How do we counteract risk aversion in students and ourselves?
- What helps students to become more motivated to learn?
- How do we stop boring our students on an industrial scale?
- How do we keep our expertise fresh?

Proxies for learning and perverse incentives

- The idea that students can make rapid and sustained progress within a short period of time is simply nonsense.
- We mislead our students into believing there is a perfectly paved road to success.
- Too many able students seem to think that effort is only for the inept.
- We must resist the temptation to make it as easy as possible for children to ‘succeed’.
- New insights depend on slow accretions of knowledge.

Dangerous assumptions about learning

- We need to remember that we cannot see learning happening.
- Learning does not proceed in an orderly predictable fashion.
- Learning is not leaping from one feel-good performance to the next.
- Learning happens when we think hard so we need to create conditions which induce cognitive strain.
- Learning is an essentially fluid process existing at the threshold between knowing and not knowing.

Learning is invisible and forgetting is inevitable

- Learning is not stepped but like overlapping waves, a gradual ebbing and flowing of frequencies of alternative ways of thinking with new approaches being added and old ones being eliminated.
- Slipping backwards is an essential part of the process of integrating new and troublesome concepts into our mental webs.

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How do we keep raising the bar for students?

Set up productive failure

- *Until we make the high level most challenging demands on our learners we will never know whether they would have been capable of reaching the highest standards.*
- *They need us only when they are in the liminal space between knowing and not knowing something. We need to give learners time and encouragement to remain in liminal space for as long as is necessary.*

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How do we feedback on work?

Give feedback on best work only

- *Research suggests immediate and too directive feedback is not helpful. It outsources the 'what to do next' difficulty to teachers or parents.*
- *Think of the dependency issues around GPS navigation devices… They will learn nothing from detailed commentary on their work unless it is at the very top end of what they can do.*

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How do students take personal responsibility and persist?

Explore desirable difficulties

- *Learning only really happens when we are subjected to cognitive strain, deliberately designed difficulty, as that is when we are required to fully concentrate. We need to ensure that our students accept that they are supposed to think hard, pay attention and struggle. Getting it wrong is key to progress.* ***We learn most from the moments that jar, not from the moments that gel.***

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How do we plan in complexity and doubt?

Teach to the top and go 'off piste'

- *Using simple techniques such as 'most difficult first'. By* ***anticipating likely misconceptions****, interrogating and challenging responses, we let them know that previous learners have embarked on similar journeys and that we are aware of the inevitable challenges and mistakes that are likely to occur.*

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How do students develop better ‘chewing muscles’?

Normalise extended responses

- *It is important to ensure students are routinely expected to give reasoned answers and are at least given the opportunity to have **to defend their viewpoint against rigorous criticism**.*
- *The whole point of learners as ‘experts in development’ is that they extend their understanding by transforming information into different formats and understand how difficult and frustrating gaining scholarship can be.*

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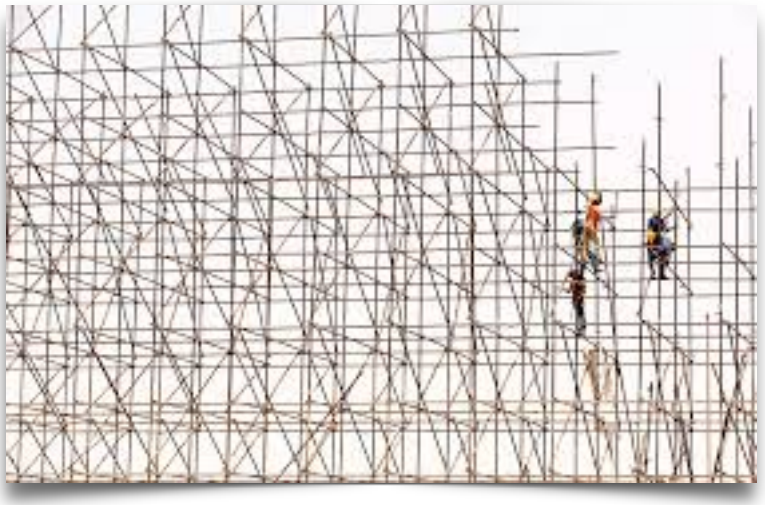
How do we expose learners to question their assumptions?

Reduce the safety and mimicry

- *By scaffolding the work too clearly and for too long, we steal the struggle from our students.*
- *Some aspects of our teaching actually make it less likely that students are able to* ***demonstrate what they are really able to do*** *or are exposed to how little they actually know.*



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Key strategies for addressing gaps in achievement

Plan in difficulty

- Puzzlement is a powerful way to enter into an enquiry. Education is not only about finding the answers; just as exciting is finding the questions. Getting it wrong is not failure but progress.
- Our role must be to get learners transcending their current limitations rather than comfortably meeting the lower expectations of their current ability.

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What are threshold concepts?

- Understanding and recognising the most important conceptual areas of our subjects upon which all else rests might help us to make better decisions about what and how to teach.
- Threshold concepts are ‘portals opening up a new and previously inaccessible way of thinking about something…’ (Meyer and Land).
- If a student fails to pass through the threshold they may not be able to progress further in a subject and they tend to be the area of the subject at which students get stuck.
- Because we have already passed through the thresholds we underestimate how difficult it is to master a tricky concept (hindsight bias).

Where are the knots in our subject?

- Focus on the bits that give us the most trouble communicating.
- Many of these concepts are complex and progress will be messy rather than smooth and linear.
- Have an agreed departmental understanding of these skills
- There is a danger in denying learners access to ideas just because they are difficult and might take time.
- Our role must be to get learners transcending their current limitations rather than comfortably meeting the lower expectations of their current ability.

What are threshold concepts?

- **Integrative:** *Once learned, they are likely to bring together different parts of the subject which you hadn't previously seen as connected.*
- **Transformative:** *Once understood, they change the way you see the subject and yourself.*
- **Irreversible:** *They are difficult to unlearn- once you've passed through it's difficult to see how it was possible not to have understood before.*

What are threshold concepts?

- **Reconstitutive:** *They may shift your sense of self over time. This is initially more likely to be noticed by others, usually teachers.*
- **Troublesome:** *They are likely to present you with a degree of difficulty and may sometimes seem incoherent or counter-intuitive.*
- **Discursive:** *The student's ability to use the language associated with that subject changes as they change. It's the change from using scientific key words to talking like a scientist.*

Investigate a variety of narratives

What is the currently successful story and why?

- Introduce early thinkers/experts whose inferred versions of reality were the currency before the current reigning narrative.
- Locate the texts that have helped to shape a subject and shows how they are part of its ‘back story’.

Plan in ambiguity, complexity and doubt

How do we encourage confusion endurance with the security that students sometimes need?

- Concentrate on what our subject still cannot answer and examine why things are still uncertain.
- Design deliberate disorientation into your lessons to enable students to become defamiliarized and have to cope with and make sense of these experiences.

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Set up sticky situations

How can we teach students that grappling with challenges is more important than any amount of easy success?

- Encourage the development of the skill of ‘knowing what to do when you don’t know what to do’ and that learning is learnable.
- Have ongoing speculative learning projects visible in your classroom that anyone can contribute ideas on.

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Utilize real world problems

What features of our subject allow students to properly investigate and research?

- Set up issues and problems that experts in your subject face and deal with.
- Utilize research questions and new technologies often and give the students the role of expert in co-development.

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Stress the big ideas and concepts

What is the big idea behind our subject and how can it be offered to students in a form that doesn't short-circuit their own thinking?

- Focus on what our subject gives to the world and what it is there to explain or offer.
- Take students behind the curtain of your lesson and to see your teaching and learning intentions.

Present ideas as live

How can we best present our subject as still relevant and dynamic?

- Stress inquiry and the sense of possibility and discovery by not focusing on what is already done, dusted and certain.
- Model genuine curiosity yourself in your reactions to unforeseen events or questions.

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Create interesting hooks

What ‘trailer type’ activities will assist our students to develop affective engagement?

- Use interesting ‘what if’ questions with meaningful trailers to involve students emotionally and imaginatively to guide them.
- Externalize your own personal thinking and decision-making in a classroom, and learn aloud.

Take the stabilizers off

How can we counteract the tendency of students to want everything spoon-fed and 'bite sized' and encourage them to develop their own chewing muscles?

- Encourage engagement with the unknown and away from steering responses into right answer tunnels.
- Promote exploration, step beyond the horizon and take risks yourself.

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Share what makes you excited

What is emotionally engaging about your subject and why is it meaningful?

- Make it clear that there are moments where we get excited about our subject and that still happens.
- Explain to students what helped us to ‘get’ our subject, our own learning histories and where our sense of security and expertise comes from.

Addressing gaps in achievement

Know the gaps;

The starting point is to ask learners to consider what they think they are good at and where they could be even better. The school can often provide a further perspective, based on data, and engage in a meaningful dialogue over where learners need to focus their efforts.

Key questions;

- *Which subjects are you making most progress in? Why? How do you know?*
- *Which subjects are you making least progress in? Why? How do you know?*
- *Do you think you are on target to achieve…?*
- *What would be the benefits of this success?*

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Addressing gaps in achievement

Narrow the gaps;

The second step is to ask learners to consider what factors help them progress well and what holds them back. Encourage them to consider what happens in a lesson where they make good progress, and what happens in a lesson when they learn less or even fail to learn. What role do teachers play, what role do they play themselves, what sort of activities are provided and what are their successful peers doing?

Key questions;

- *What targets are you setting yourself?*
- *What are you personally doing to achieve these targets?*
- *What will you do to overcome…(a given problem)?*
- *What help do you need from teachers, friends and family?*

Addressing gaps in achievement

Mind the gaps;

The third area involves asking pupils to observe and reflect on progress and changes in performance. To be effective, this needs to be part of an ongoing process and does not need to involve a teacher. A reflective learning log allows them to develop a sense of change over time.

Key questions;

- *Which subjects do you need to focus on this week?*
- *Have you met your own targets? If not, why?*
- *If so, what do you put your success down to?*

Addressing gaps in achievement

Celebrate gap busting;

The final phase is to provide opportunities to reflect on the small steps of progress as well as the big ones, for example, through a regular conversation in school or at home, looking at positive changes. This will help validate the whole process and demonstrate the value of pupils taking responsibility for the improvements they make.

Key questions;

- *Where have you made the most progress recently? How do you know?*
- *What are you most proud of this week?*
- *What do you want to achieve next week? Next term? Next year?*

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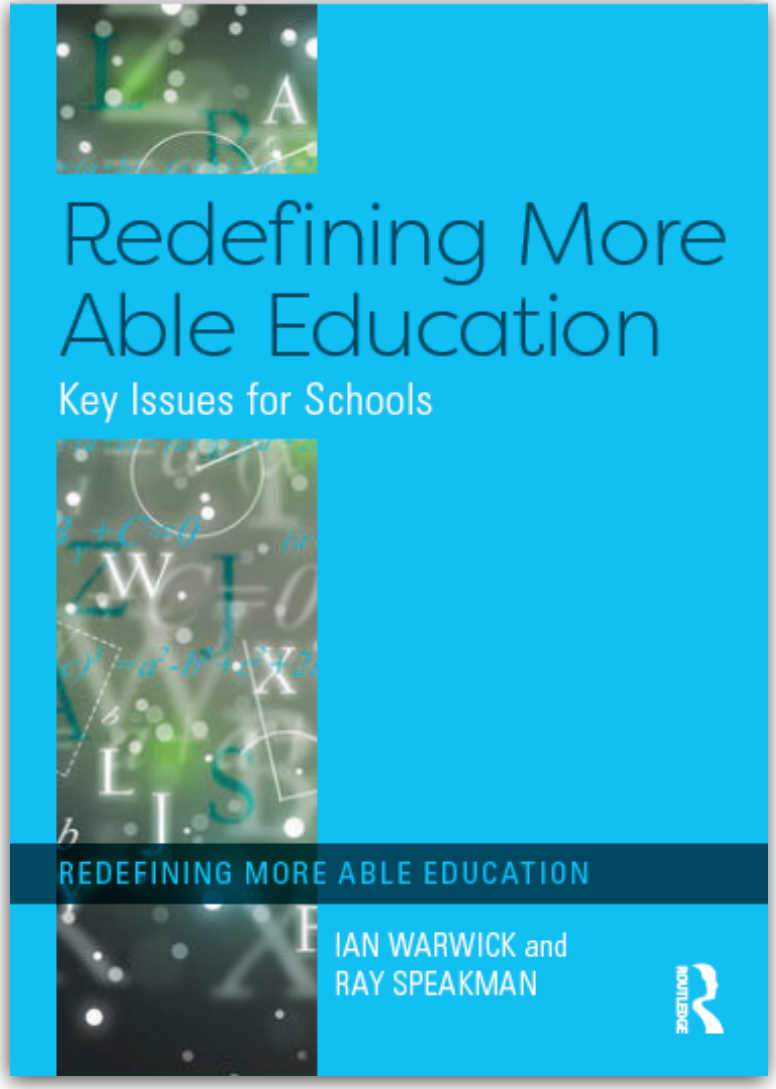
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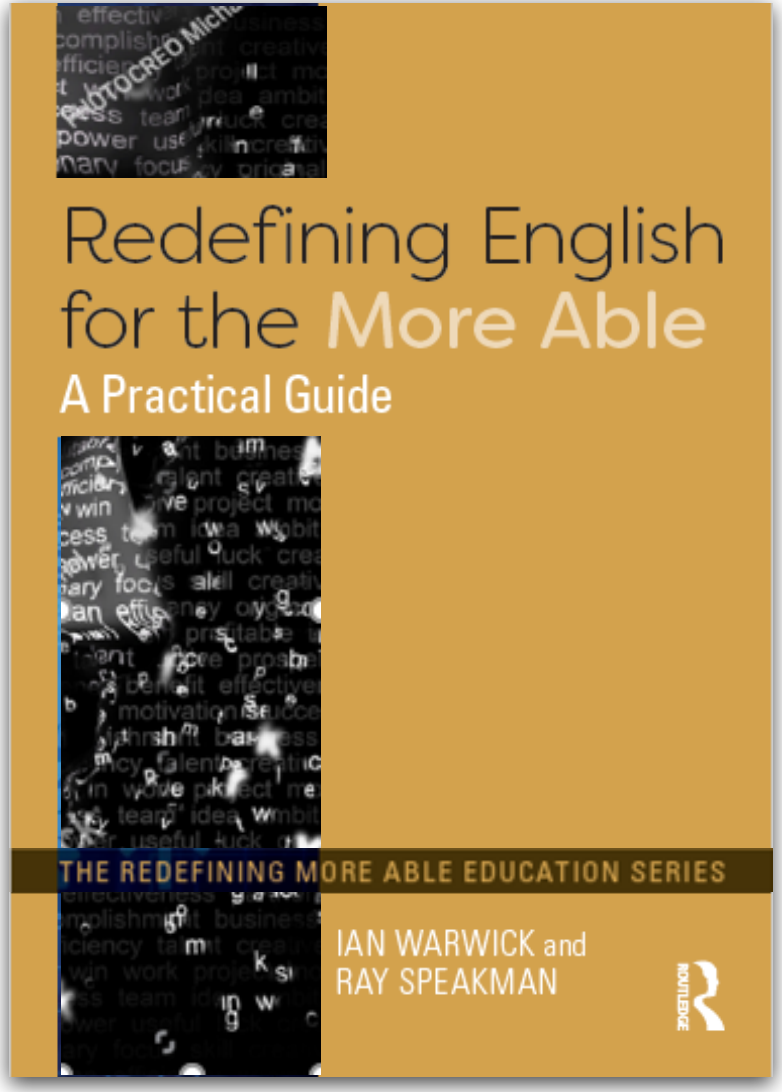
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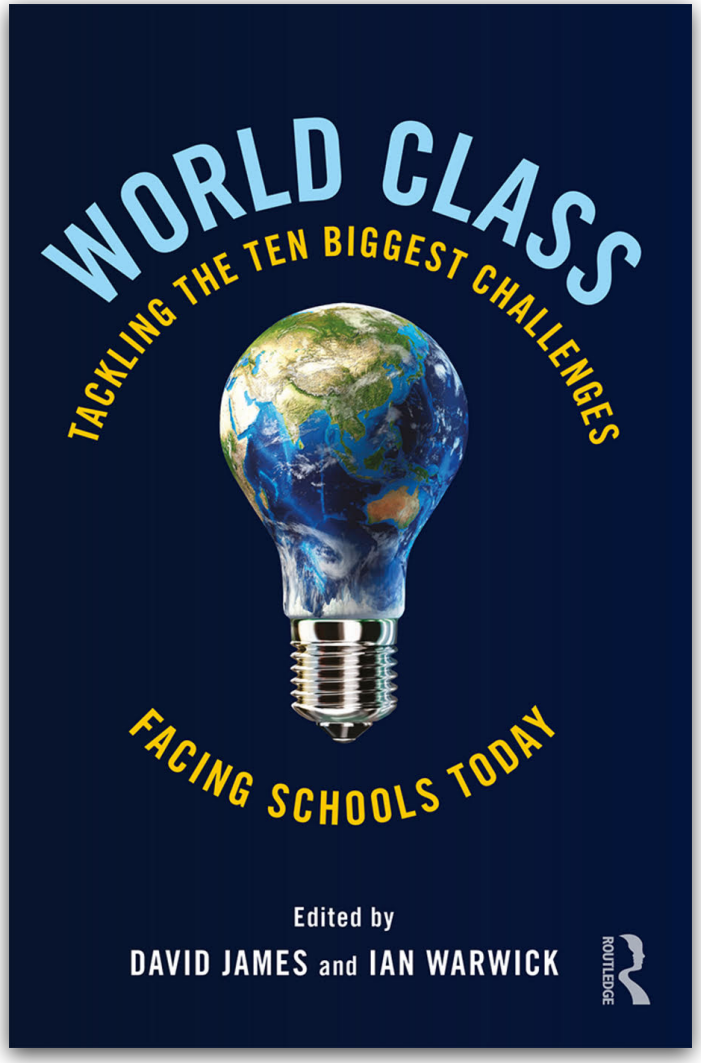
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FACING SCHOOLS TODAY
Edited by
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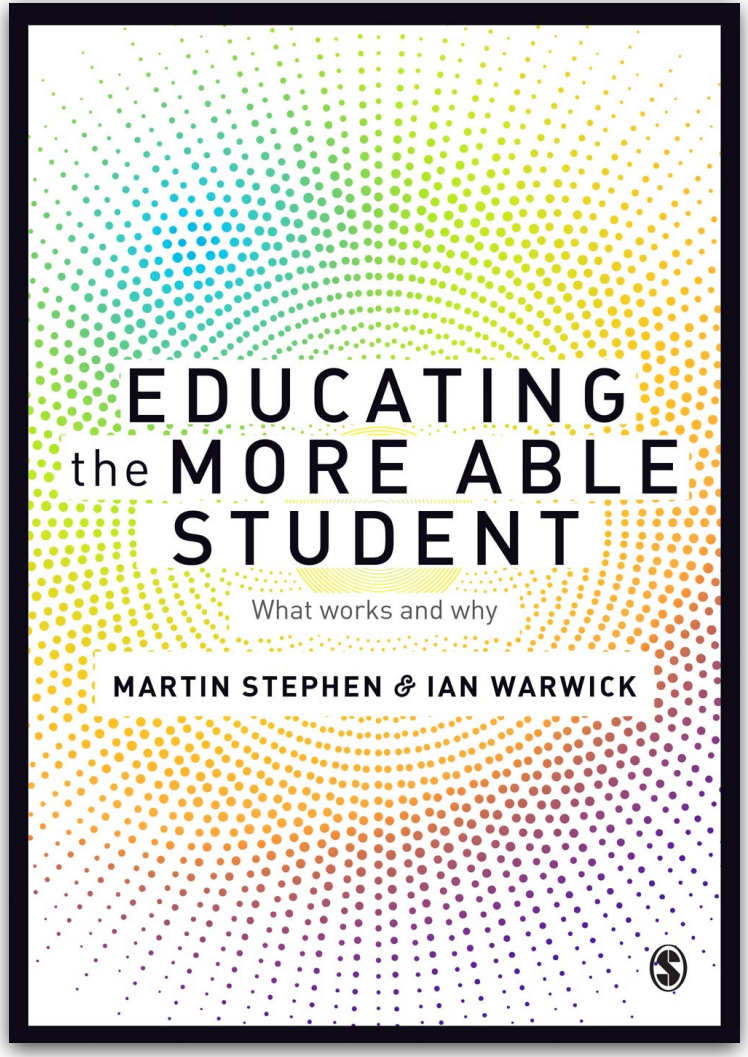
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