



Windsor
Academy Trust

Developing Teacher and Learner Effectiveness

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Section 1

Developing Teacher Effectiveness

Introduction

“If we create a culture where we all believe that we need to improve, not because we are not good enough, but because we can be even better, there is no limit to what we can achieve.”

— Dylan Wiliam

Teaching and Learning is the beating heart of our trust family and we believe that it is teacher effectiveness that unlocks the personal and academic potential of the children in our care, enabling them to be all and more than they ever thought they could be. ‘The goal is for every teacher in every classroom to be as good as they can be in what they teach (the curriculum and how they teach it (pedagogy)’ - (Knowledge-building-School improvement at scale, February 2021 - The Confederation of School Trusts). Mary Myatt states that ‘it is as important to think about the implementation of the curriculum, as it is to think about the intent.’ The CST also proposes that ‘there is no improvement for pupils without improvement in teaching, and no improvement in teaching without the best professional development for teachers.

At Windsor Academy Trust (WAT), we strive to create a culture of continuous, incremental improvement by providing the very best professional learning opportunities for our staff. Supporting teachers to improve is our biggest lever to improve learner outcomes. Over the last few decades, one conclusion

has arisen time and time again from studies: the ‘teacher effect’ far outweighs the ‘school effect’ (Muijs and Reynolds, 2000; Nye et al, 2009; Teddie and Reynolds, 2000). As the authors put it: the differences among teachers is substantial in comparison to the variance between schools. In conclusion, if we want to improve student outcomes - particularly the outcomes of the most disadvantaged students - and if we want to make a difference, then our biggest lever is improving teacher effectiveness and mitigating the ‘teacher effect’.

We develop teacher effectiveness by:

- Having a clear vision, framework and consistent language when we speak about Teaching and Learning
- Supporting staff with their understanding of seminal research so that they have a solid foundation for developing their pedagogy and their understanding of how learning and memory work
- Providing staff with world class professional learning opportunities and resources to help them to become the best teacher they can be

What is Great Teaching?

We draw on critical research based on reviews of teaching frameworks to consider the characteristics of the best teaching both within lessons and across a sequence of lessons for effective learning to take place.

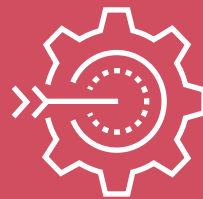
The 2014 review: What makes great teaching? (Coe, Aloisi, Higgins and Major) aimed to outline the characteristics of effective teaching through a review of the underpinning research. It defined great teaching as that which leads to improved student achievement.

The review identified six components of great teaching:

1. (Pedagogical) content knowledge
2. Quality of instruction
3. Classroom climate
4. Classroom management
5. Teacher beliefs
6. Professional behaviours

In 2010, Barak Roshenshine published a set of 10 principles of instruction based on evidence from cognitive science, research into the classroom practice of master teachers and research on cognitive supports such as scaffolding:

1. Begin a lesson with a short review of previous learning
2. Present new material in small steps with student practice after each step
3. Ask a large number of questions and check the responses of all students
4. Provide models
5. Guide student practice
6. Check for student understanding
7. Obtain a high success rate
8. Provide scaffolds for difficult tasks
9. Require and monitor independent practice
10. Engage students in weekly and monthly review



Our WAT Sunshine Model for effective teaching and learning reflects these principles.



Our Teaching and Learning Vision

Our vision for Teaching and Learning is to **engage, enthuse and inspire every lesson, every day**. Our highest levers for developing teacher effectiveness are:

1. The WAT Brilliant Basics 5

Professor John Hattie argues that in classrooms where teachers have high expectations so will their students. The [WAT Brilliant basics 5](#) are needed to establish a positive climate for learning in every classroom across our family.

They set the tone for high expectations and high aspirations. In addition, they ensure that our teachers have everything they need to teach brilliantly and our students have everything they need to learn brilliantly.

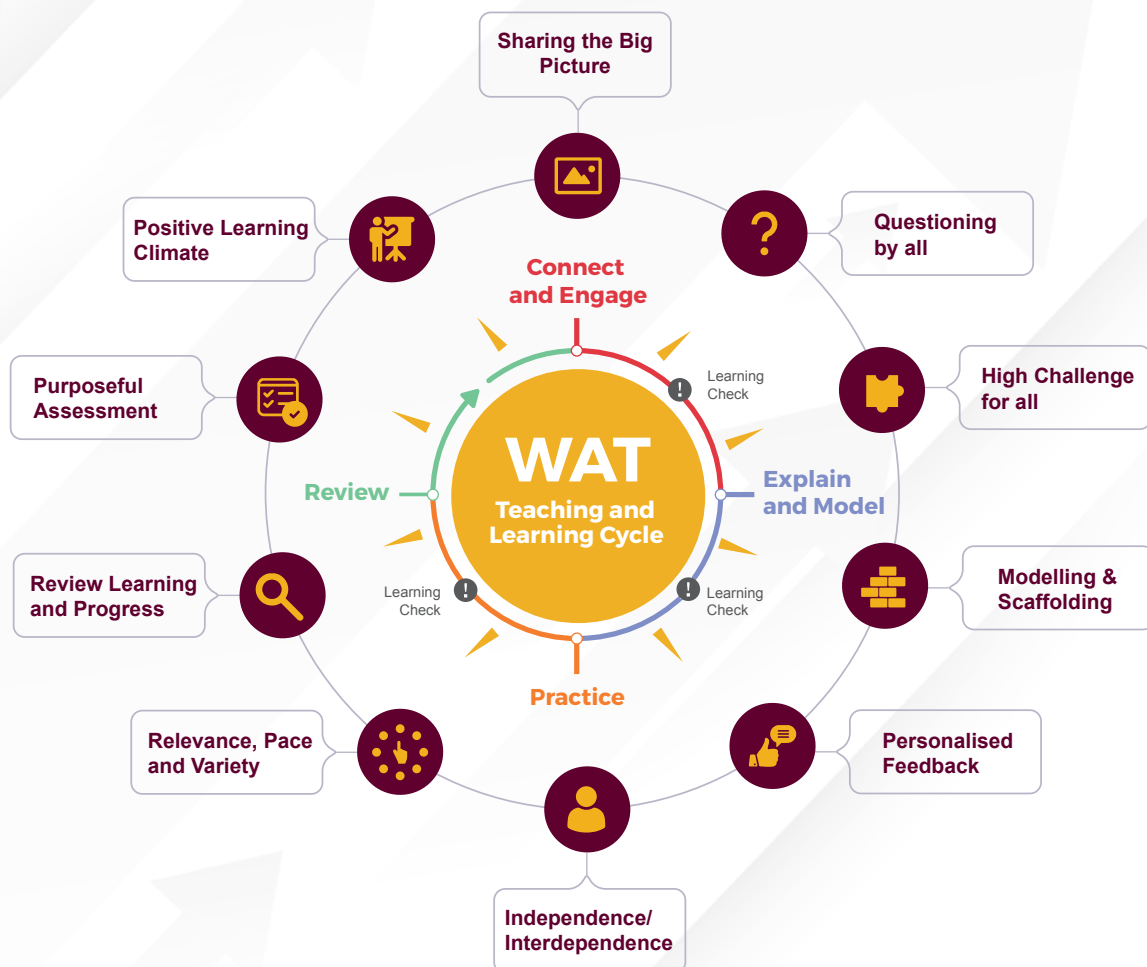




2. The WAT Teaching and Learning Sunshine Model

We have a clear framework and language as shown in our Sunshine Model below which is both rooted in robust research evidence combined with reflecting the very best practice

of champion teachers across our family of schools. Our sunshine model provides us with clarity, consistency and a common language when we talk about great teaching.



3. The High Challenge for All Scaffold

We choose to talk about high challenge for all rather than differentiation across our family and that is because we believe that challenging and interesting work is an entitlement for all our learners irrespective of their ability. Furthermore, it is our fundamental responsibility to support all our students to be excellent. In Ron Berger's book, *An Ethic of Excellence*, he writes about

how he immerses students in high standard exemplar work and models, allows them to redraft their work multiple times and builds up a culture of collegiate pride. We recognise that planning for and embedding high challenge for all into our practice is complex which is why we created our High Challenge for All Scaffold - a walkthrough of how to do it:

"If it doesn't challenge you, it won't change you."

– Fred Devito

High Expectations

Challenging and interesting work is an entitlement for ALL our learners irrespective of their ability. All learners can produce excellent work once they know what it looks like and are given the appropriate tools and support to make it happen.

A Culture of learning from error

Learners view mistakes as learning opportunities, rather than shame.

Plan

Connect and Engage

Explain/ Model

Identify the top achieving learner in the class and plan your lesson as if the whole class were working at this level. Provide the necessary support for those who need it.

Learning should start the second they cross the threshold of our classroom.

Strong subject knowledge: use academic talk and tier 2 & 3 vocabulary within your explanation.

Select interesting and ambitious content (texts, problems...) which will make learners think hard.

Low stakes quiz which links with prior learning and promotes retrieval.

Keep a record of common misconceptions and address these within your explanation.

Plan your think-hard questions/tier 3 vocabulary and possible misconceptions

Share the big picture of what we are learning and why it is important. What will success look like?

Be explicit by showing the students what excellence looks like (WAGOLs, live modelling with visualiser, I, We, You).

Practise

All learners are engaged in healthy struggle (the learning pit, zone of proximal development) and demonstrate resilience by knowing what to do when they don't know what to do.

Circulate around your room to provide stretch and support where needed. Seek out the common errors and address these immediately.

High expectations - only accept excellence. Oral rehearsal.

Learning Checks and Review

Create a climate that encourages learning from trial and error.

Learning checks should assess/evidence the learning of ALL learners. Be responsive and adjust teaching to take account of assessment.

Questioning - cold call, no opt out and stretch-it.

Personalised Feedback

A common and shared language of learning.

Live marking/feedback - actively work the room 100% of learners complete feedforward.

Learners should be able to assess themselves and know how to improve. They are their own teachers. Train them to do this.

“We are a challenge seeking species; we like doing things that are difficult as long as the conditions are right.”

— Mary Myatt



Learning and Memory



This focus on memory sits within the field of cognitive science as **Dylan William** argues Cognitive Load Theory (CLT) is;

‘The single most important thing for teachers to know’

– 2017

We should be planning teaching in line with how the human brain works. This theory supports teaching, building and regularly revisiting knowledge as the vital building block in gaining subject expertise and reaching deeper understanding.

‘We need to acknowledge that high level critical thinking is only possible when important knowledge and understanding has been committed to long-term memory. Memorisation is not the enemy of critical thinking and creativity, as some have suggested, it is the platform and scaffolding which is required to enable it to happen’ (Looking to the Future without Trashing the Past - Tim Oates CBE, Director of Assessment Research and Development at Cambridge Assessment. CST 2021).

Classroom teaching should **consider the detrimental effects of overloading processing power in the working memory**. Link to prior knowledge, present material in chunked steps, check understanding regularly.

Avoid split attention, for example speaking whilst students are trying to read. strategies such as dual coding (combining words and visuals) are recommended as advocated by Caviglioli.

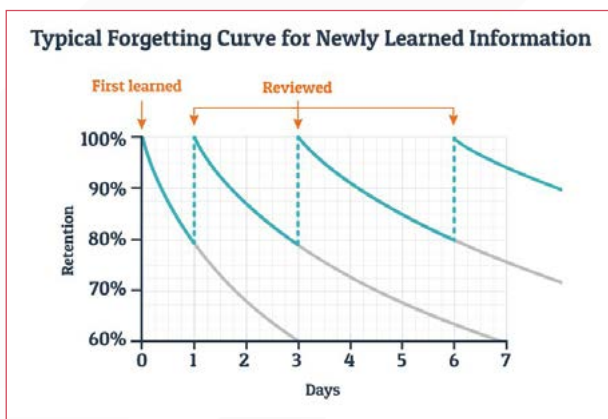
Daniel Willingham explains the importance of embedding critical knowledge in long term memory:

- 1.** You can only think deeply and critically about what you know well— i.e. that which you have a lot of knowledge about.
- 2.** To aid thinking, that knowledge must be encoded in long-term memory. **Retrieval practice is the tool that encodes knowledge in long term memory.** Having to recall something - especially having to struggle to recall it after a bit of forgetting has begun strengthens the neural pathway in which it is encoded making it stronger and easier to recall.

In line with **Dunlosky's Strengthening the Student Toolkit** we advocate four central strategies to encourage knowledge retention:

- 1. Self Quizzing and Practice Testing:** Low stakes testing, clear knowledge based tests. These should be incorporated into lessons and our students are also trained to develop hard working self-quizzing techniques. Full recall (rather than simply spotting the right answer) is the best for promoting retrieval rather than multiple choice which are more suited as hinge questions to elicit misconceptions. There is also a benefit in getting the answer wrong - for those answers completed with a high level of confidence which are then shown to be wrong a 'hypercorrection effect occurs, that is, the correct answer 'sticks' for longer (Butterfield and Metcalfe 2001).
- 2. Distributed Practice:** Recap or teach over several days rather than cramming - it allows students to forget and relearn so promotes effective long term retention. We work practice into remote learning to revisit and repeat content in practice testing to reinforce retention.

The Ebbinghaus Forgetting Curve exemplifies this strategy ▼



- 3. Interleaved practice:** It is important to space out and revisit topics. If students simply do massed practice on one topic they will seem fluent in it but this is short term and quickly forgotten. It is the same strategy as learning spellings in primary school - learn each and then cycle through them all over time. Lesson starter activities which check current knowledge and knowledge from previous topics are an effective way to interleave.
- 4. Elaborative Interrogation and Self Explanation:** Encourage students to ask why something is so (for example photosynthesis); can they see similarities with other processes. This gives active processing of content rather than rote learning and so will be reinforced in long term memory. This is 'Germane Cognitive Load' or the struggle zone which deepens understanding.



Powering Teacher Effectiveness

One of the key takeaways from Daisy Christodoulou's new book *Teachers vs Tech: The Case for an Ed Tech Revolution*, is that teachers need to understand how knowledge shapes learning. If we don't, we will overvalue discovery learning which presumes erroneously that teacher expertise and student background knowledge are relatively unimportant and we will immerse students in rich and unstructured technological

environments without prepping them with background knowledge or the mediation of a teacher. Digital technology is not a silver bullet, but when it is combined with strong subject knowledge and pedagogical expertise, it will augment teacher effectiveness and accelerate learning. Our table below shows some powerful ways to begin to power up our teaching using digital technology:



	Digital Technology	An example in practice (screencast/tutorial/IRIS clip)
Connect and engage	All lessons start with a Low stakes SMART START retrieval quiz using Google Forms which are posted onto Google Classroom in advance of the lesson <u>Tutorial: Google Forms</u>	<u>Training students to start well</u>
Explain and model	100% of classrooms have a visualiser which we use to enhance the way we explain/model to our students. <u>Tutorial: The HUE visualiser</u>	<u>The HUE in practice</u>
	<u>Tutorial: Explain everything is an app that enables you to model work live on your iPad</u>	<u>Explain Everything in practice</u>
Practice	Google docs are a great way to set out an extended learning challenge for students. <u>Tutorial: Google Doc</u>	<u>Google Docs in practice</u>
	Google Jamboard is a digital whiteboard that allows for remote or in-person collaboration on a shared space. Students or colleagues can sketch out ideas, problem solve, or draw collaboratively and synchronously. <u>Tutorial: Jamboard</u> <u>Jamboard templates</u>	<u>An example of a student workbook</u>
Review	The exit pass on Google Forms is a great way to evidence of students have learned what we have taught them <u>Tutorial: Google Forms</u>	Exit passes in practice
Learning Checks	The <u>WAT AFL app</u> is great tool for whole class learning checks	<u>How to use in practice</u>



Our WAT Staff Digital Learning Hub provides even more tutorials to support



Section 2

Developing Learner Effectiveness

Weaving ASPIRE into Teaching and Learning



Introduction

As a trust family, we want every learner to believe that they can be all and more than they ever thought they could be; and know what their future self looks like when they have realised their academic and personal potential.

Students need to see what the view from the top of their personal mountain looks like. Research tells us (Quaglia Institute for Student Aspirations) that people who have clear aspirations for their future (personally and academically) are eight times more likely to be motivated and engaged in their learning in the present.



We know from the pandemic that the students who thrived in the remote environment were able to self-regulate. By this we mean they were able to take responsibility for their learning and they knew what to do when they didn't know what to do. We want all our young people to be able to ASPIRE so that they can self-regulate, thrive and be equipped to bounce back from failure. In the words of John Hattie, "self-regulation needs to be taught rather than presumed".

Our students have been introduced to the evolved concept of ASPIRE through assemblies and form time. They are seeing

it branded everywhere in their schools and they have completed their ASPIRE sentence which enables them to believe they can unlock their academic and personal potential if they take action in the present. We are intentionally over communicating ASPIRE to our students so that it becomes, as Rita Pearson would say, "a part of them".

As educators we have the privileged role to guide our students up the mountain and give them the ropes of character, powerful knowledge and skills so that they will reach the summit and do so at a faster pace, becoming all and more than they thought they would be.

What is the connection between character, knowledge and learning skills?

All the international research indicates that ASPIRE is best taught within the curriculum. As Michael Young puts it, *'it is a serious error to assume that skills can be taught independently of knowledge'*. The ASPIRE learner skills and character virtues are interdependent. Each learning skill tests a student's character virtues. For example, giving feedback to a peer is a test of a student's respect, courage and compassion; to become unstuck is a test of resilience and courage; or to communicate clearly can be a test of one's courage and creativity. The ASPIRE learning skills and knowledge display a complex interplay as pupils learn.

Let's consider this example →

A student can use planning strategies when drafting a structure for a GCSE essay about Shakespeare. But without an understanding of Shakespeare's plays, knowledge of language, and the relevant social context, the essay will not be successful.

Students cannot apply what they don't know. Knowledge and learning skills support each other and so need to be taught concurrently. Crucially, learning skills do not stand alone from our curriculum. They should be woven into learning as an intrinsic part of how we upskill students to connect with knowledge at a deeper level.

In a nutshell, the ASPIRE learning skills help students to self-regulate so that they can learn better, learn more deeply and remember more.

What is the evidence-base for ASPIRE?

There is extensive international evidence that concludes that **character and learning skills are powerful drivers of student progress:**

John Hattie's visible learning research which involved 25 years of looking at the variables that have the greatest impact on student achievement (1600 meta-analyses comprising 96,000 studies involving 300 million students from all over the world) offers strong measures to validate that teaching students to be independent, to be equipped with learning strategies to support them to self-regulate can have an effect size of 0.6 plus.

The EEF's systematic evidence reviews indicate that metacognitive strategies have large positive impact, on average providing an additional seven months progress.

'Self-regulation and learning to learn were key determinants of student motivation, engagement and success' during remote education

(Fullan 2020 Education Reimagined)

Dunlosky's research on study strategies identifies the metacognitive strategies such as practice testing and interleaving as the most powerful strategies for retention of knowledge

The Jubilee Centre for Character and Virtues identifies four virtue categories: intellectual virtue, moral virtue, civic virtue and performance virtue.

These categories are mutually influential towards an individual's ability to flourish personally and academically; emphasis must be placed on the application of all, not one. The six ASPIRE Character Virtues embody these four virtue categories.

The EEF makes a definitive link between the mindsets of students and their success as they learn. This includes a student's ability 'to respond to setbacks, work well with others, build relationships, manage emotions, and cope with difficult situations'.

Again, all the research concludes that learning skills are best taught within the curriculum and that character can be taught as well as sought and caught.

What about evidence-informed wisdom?

We know from our own unique experience during remote education that the students who made the greatest progress were able to self-regulate and ASPIRE because they had the motivation, character and skills to do so. And this is why we are shining the light on ASPIRE.

Teaching remotely was probably one of the greatest tests of our own character and skills set as a profession. In December 2019, could we have imagined that we would be teaching our classes live from home using dual screening? We are emerging from Covid-19 with a collective sense of pride in our profession as a result of the high quality remote education that we delivered to our students. We ASPIRED as teachers and we are proud of the impact that we had on our students as a result of our high expectations and high aspirations. We reached the summit ourselves!

As we emerge stronger as a family, let us be intentional about teaching our students to ASPIRE in learning whilst leveraging technology to help them to power their way to the summit.



“We are emerging from Covid-19 with a collective sense of pride in our profession.”



Learners who ASPIRE

Learners who are equipped with ASPIRE learner skills:



- believe in themselves (self-efficacy)
- are motivated to engage in learning
- are well-organised
- think, speak and write like subject specialists
- are independent learners i.e. know what to do when they don't know what to do
- are equipped with strategies to learn
- learn from failure and view it as their best friend (John Hattie).

Our collective mission is to support 100% of our students to ASPIRE every lesson, every day!

Learners who demonstrate Character in their learning:



- are brave in the face of challenges, and welcome the opportunity to try new things;
- value and respect all learning opportunities, believing that they are on a journey to mastery and towards achieving their ASPIRE Sentences;
- make connections between the knowledge and the skills they acquire, and their lives outside of the classroom;
- are inspired by the 'characters' they learn about; the struggles they have endured and the developments they have made to that field;
- support the learning of others through respectful communication and kindness.

ASPIRE Learner Skills Descriptions

ASPIRE Learner Skills	Description (Student speak)
I can be organised	<ul style="list-style-type: none"> • I am prepared for my learning • I can self-start • I can organise my ideas
I can become unstuck	<ul style="list-style-type: none"> • I know what to do when I don't know what to do • I can climb out of the learning pit
I can self-quiz	<ul style="list-style-type: none"> • I know that self-quizzing helps me to learn better and remember more
I can give and receive feedback	<ul style="list-style-type: none"> • I check my work and SPAG against the success criteria before handing in • I gladly receive, understand and act upon feedback
I can be collaborative	<ul style="list-style-type: none"> • I work well with my learning partner and within a group so that we can learn more as a team
I can communicate clearly	<ul style="list-style-type: none"> • I can listen actively • I can ACCE talk to present my ideas successfully

ASPIRE Character Virtues Overview

ASPIRE Character Virtues	Description (Student speak)
I am respectful	<ul style="list-style-type: none">• I treat someone or something with consideration
I am responsible	<ul style="list-style-type: none">• I act knowing my choices will lead to certain outcomes
I am resilient	<ul style="list-style-type: none">• I try even when something is challenging
I am creative	<ul style="list-style-type: none">• I think of different ideas and perspectives
I am compassionate	<ul style="list-style-type: none">• I show care and kindness to others
I am courageous	<ul style="list-style-type: none">• I am brave and aim high

ASPIRE Learner Skills - Making it Happen!

Key resource for teachers: [ASPIRE learner skills slide deck](#) (embedded tutorials/visuals that you can use in lessons for each of the six metacognitive skills)

ASPIRE Learner Skills	Description (Student speak)	What can teachers do to 'start' teaching students to ASPIRE every lesson, every day?	Which character skills are being tested?
I can be organised	<ul style="list-style-type: none"> I am prepared for my learning I can self-start I can organise my ideas 	<ul style="list-style-type: none"> Train students to self-start by completing a low stakes retrieval quiz in the connect and engage phase of the lesson 	I am: <ul style="list-style-type: none"> Respectful Responsible Resilient Creative Compassionate Courageous
I can become unstuck	<ul style="list-style-type: none"> I know what to do when I don't know what to do I can climb out of the learning pit 	<ul style="list-style-type: none"> Over communicating that failure is a learner's best friend (provided we learn from it!) High quality explanation, modelling and scaffolding The learning pit metaphor (see the slide deck) 	
I can self-quiz	<ul style="list-style-type: none"> I know that self-quizzing helps me to learn better and remember more 	<ul style="list-style-type: none"> SMART STARTS (low stakes quizzes every lesson - retrieval/interleaving) Train students how to use their knowledge organisers for self-quizzing Checklists Model memory techniques Set self-quizzing homework 	
I can give and receive feedback	<ul style="list-style-type: none"> I check my work and SPAG against the success criteria before handing in I gladly receive, understand and act upon feedback 	<ul style="list-style-type: none"> By modelling what great feedback is, you are training the students to be great at receiving and giving feedback. Shirley Clarke suggests placing student work under the visual and the whole class offering feedback against the success criteria Live feedback/whole class feedback 	
I can be collaborative	<ul style="list-style-type: none"> I work well with my learning partner and within a group so that we can learn more as a team 	<ul style="list-style-type: none"> Make think-pair-share the norm in our classroom 	
I can communicate clearly	<ul style="list-style-type: none"> I can listen actively I can ACCE talk to present my ideas successfully 	<ul style="list-style-type: none"> Train students to ACCE talk (Articulate - Confidence - Combined effort - Exploratory talk) Minimum expectation that all students answer using full sentences Questioning - cold call, no opt out, stretch it, think-pair-share 	

References

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9. **Six Ways Visuals Help Learning** - Chartered College of Teaching



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