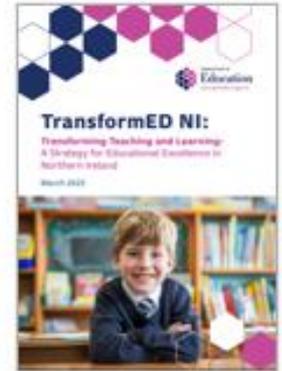
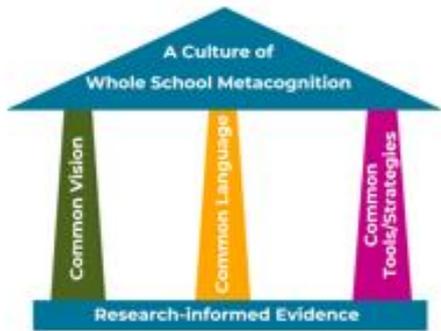


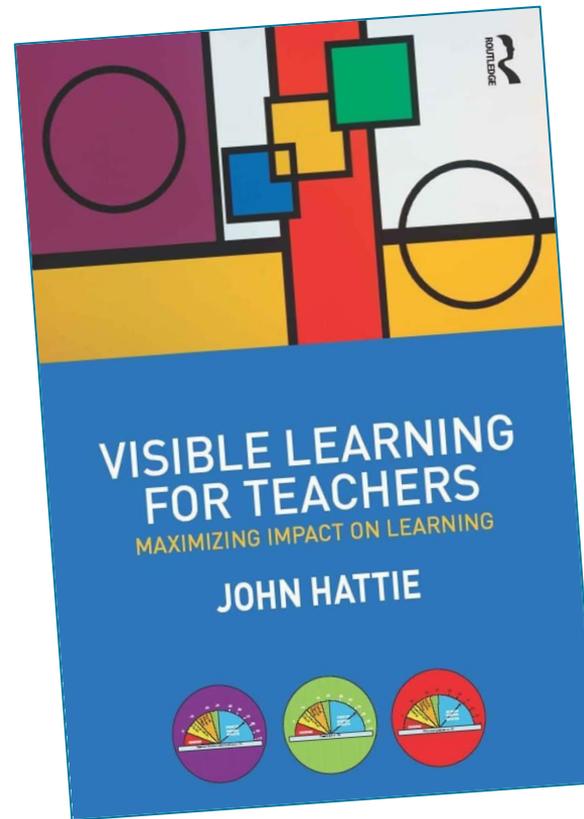
Making Best Practice, Common Practice



The Thinking School ~ Implementation with Impact

Lorna Gardiner
Thinking Matters

Know thy impact!



Professor John Hattie (2012) *Visible Learning for Teachers. Maximizing Impact in Learning.*



Education
Endowment
Foundation

Supporting schools, colleges,
and early years settings to
make a difference with
evidence



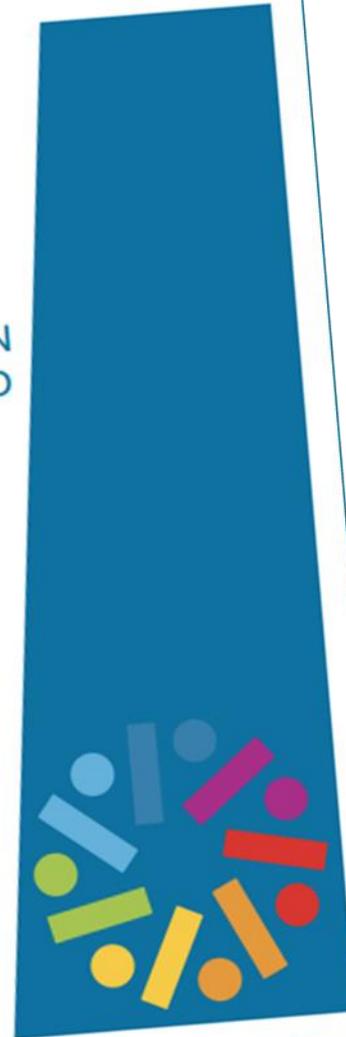
Independent Review
of Education

INVESTING IN A BETTER FUTURE:

THE INDEPENDENT REVIEW OF EDUCATION IN NORTHERN IRELAND

VOLUME 1

December 2023



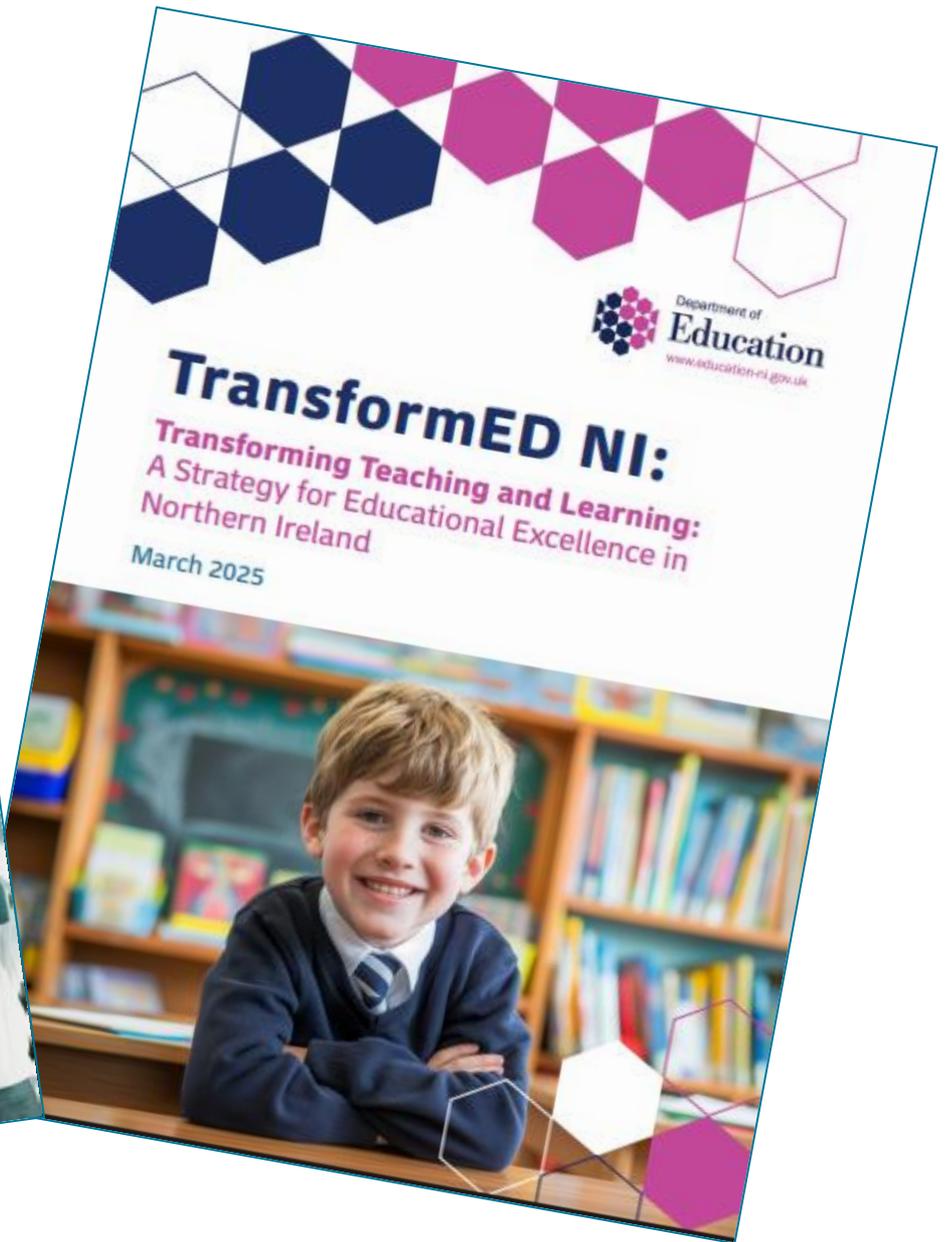


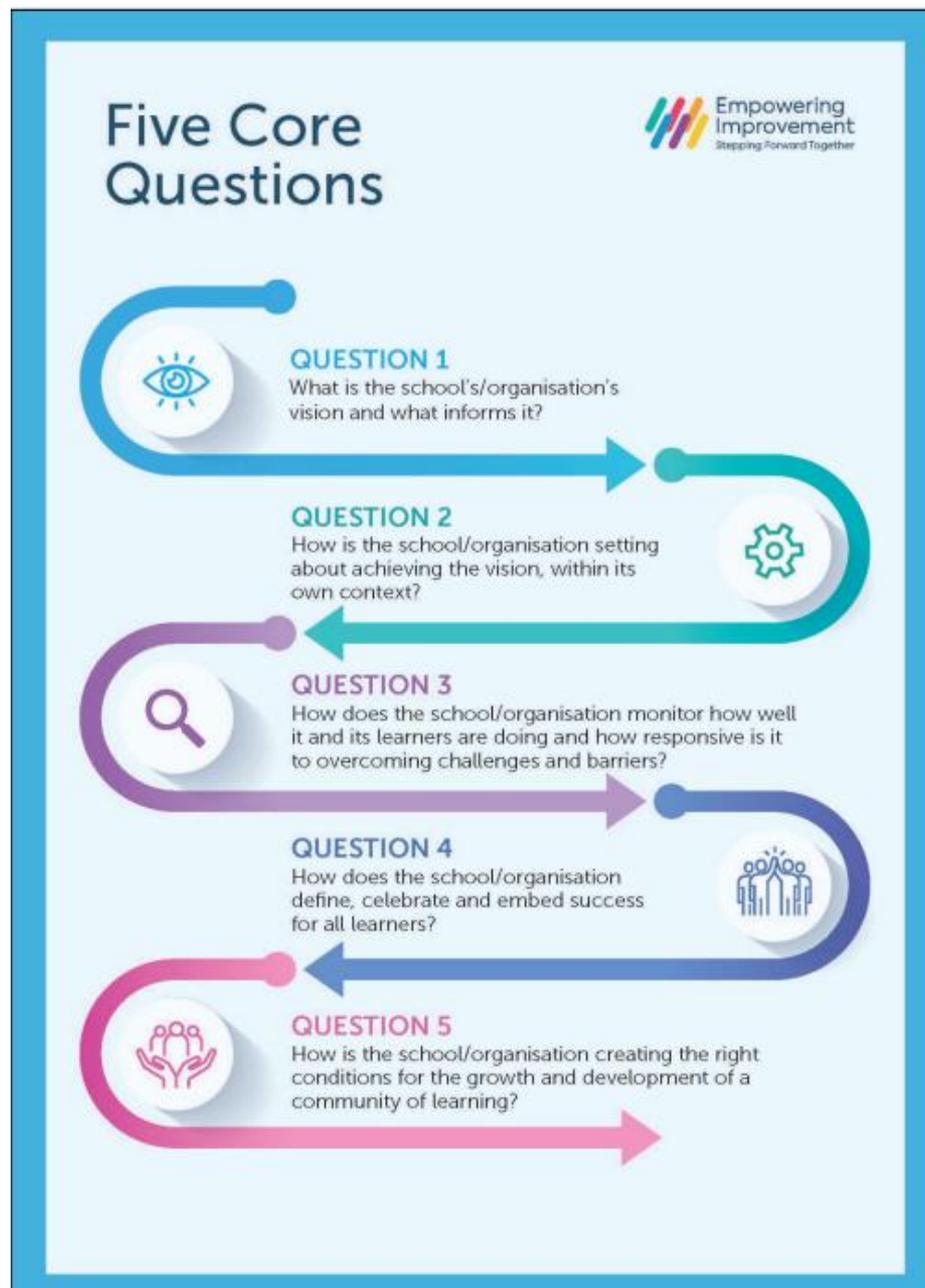
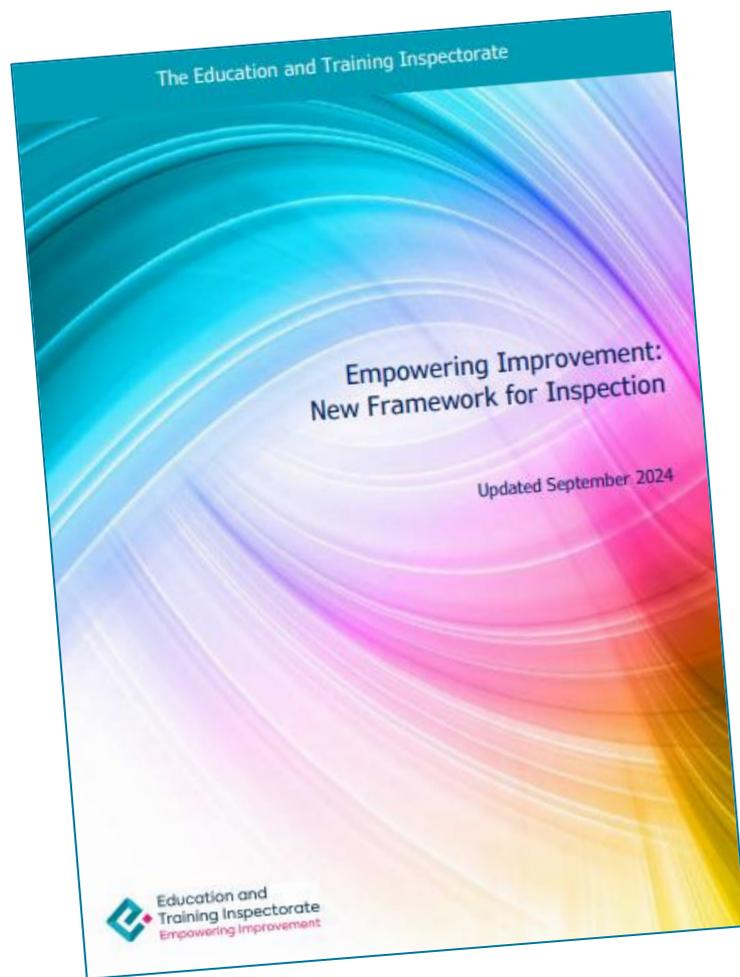
OECD > Topics > Student performance (PISA)

Student performance (PISA)

Student performance shows the extent to which students have acquired key knowledge and skills essential for full participation in social and economic life. The Programme for International Student Assessment (PISA) assesses the skills of 15-year-old students in reading, mathematics and science as core domains. It also assesses innovative domains such as collaborative problem solving, global competence and creative thinking.







Learner dispositions, wider skills, capabilities and progression

Key questions	Going well	Even better if
<p>Learner wider skills, dispositions and capabilities</p> <p>To what extent:</p> <ul style="list-style-type: none"> ➤ do the learners have confidence in themselves, and high expectations for themselves, relative to their current learning and progress? ➤ are the learners able to work well individually, in teams and in pairs, showing respect, taking responsibility and reaching agreement through consensus or compromise? ➤ do the learners organise and manage themselves well, set goals and targets and evaluate how they can improve their work? ➤ are the learners able to research and manage information by asking questions and accessing, selecting, recording, evaluating and applying information appropriately? ➤ do the learners think flexibly and critically, make predictions, informed decisions and solve problems? ➤ do the learners demonstrate creativity, initiative and take risks in their learning? ➤ are learners competent, responsible and discerning users of digital technology across a range of contexts? 		
<p>Progression</p> <p>To what extent:</p> <ul style="list-style-type: none"> ➤ are the learners acquiring new knowledge and skills? ➤ are the learners making progress and achieving in line with their abilities? 		



Teaching and Learning Toolkit

An accessible summary of education evidence

Toolkit Strands ↓ ▲ Cost ↓ ▲ Evidence ↓ ▲ Impact ↓ ▲

Metacognition and self-regulation



+8

Very high impact for very low cost based on extensive evidence.

Reading comprehension strategies

Metacognition and self-regulation are rated by the EEF's Teaching and Learning Toolkit as 'high impact for very low cost', based on extensive evidence.

(+8 months of additional progress)

<https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/>



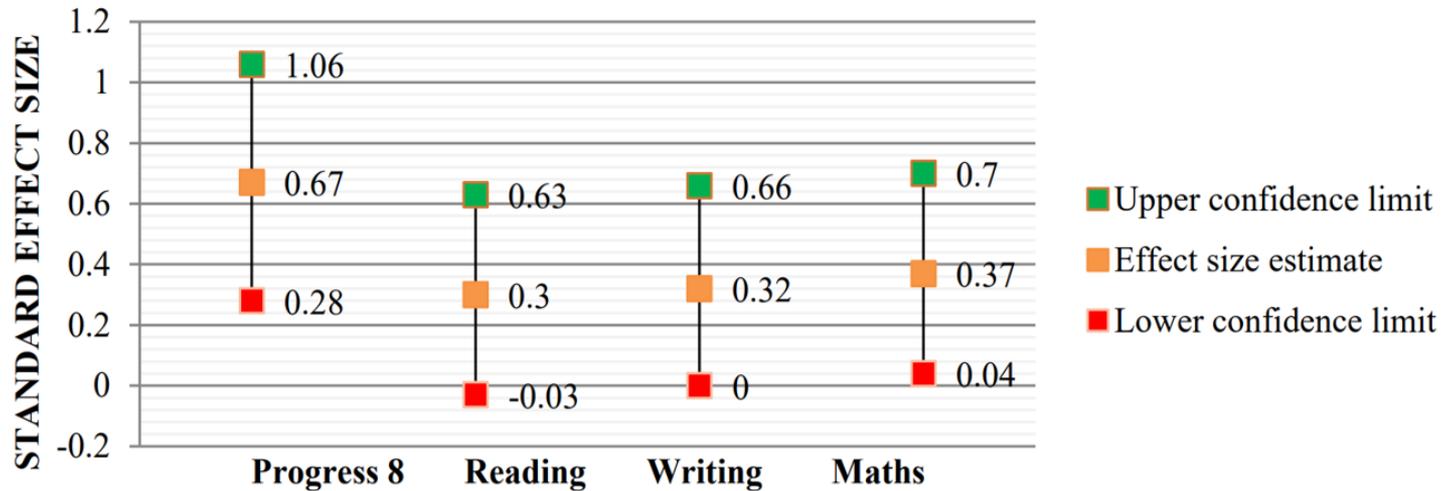
Wider Benefits of Thinking Schools

Develops skilled, independent, reflective learners

Greater motivation – for children and teachers

Improved discipline and attendance

Improved attitudes, behaviours and coping strategies



(Average effect size across all measures = 0.42)

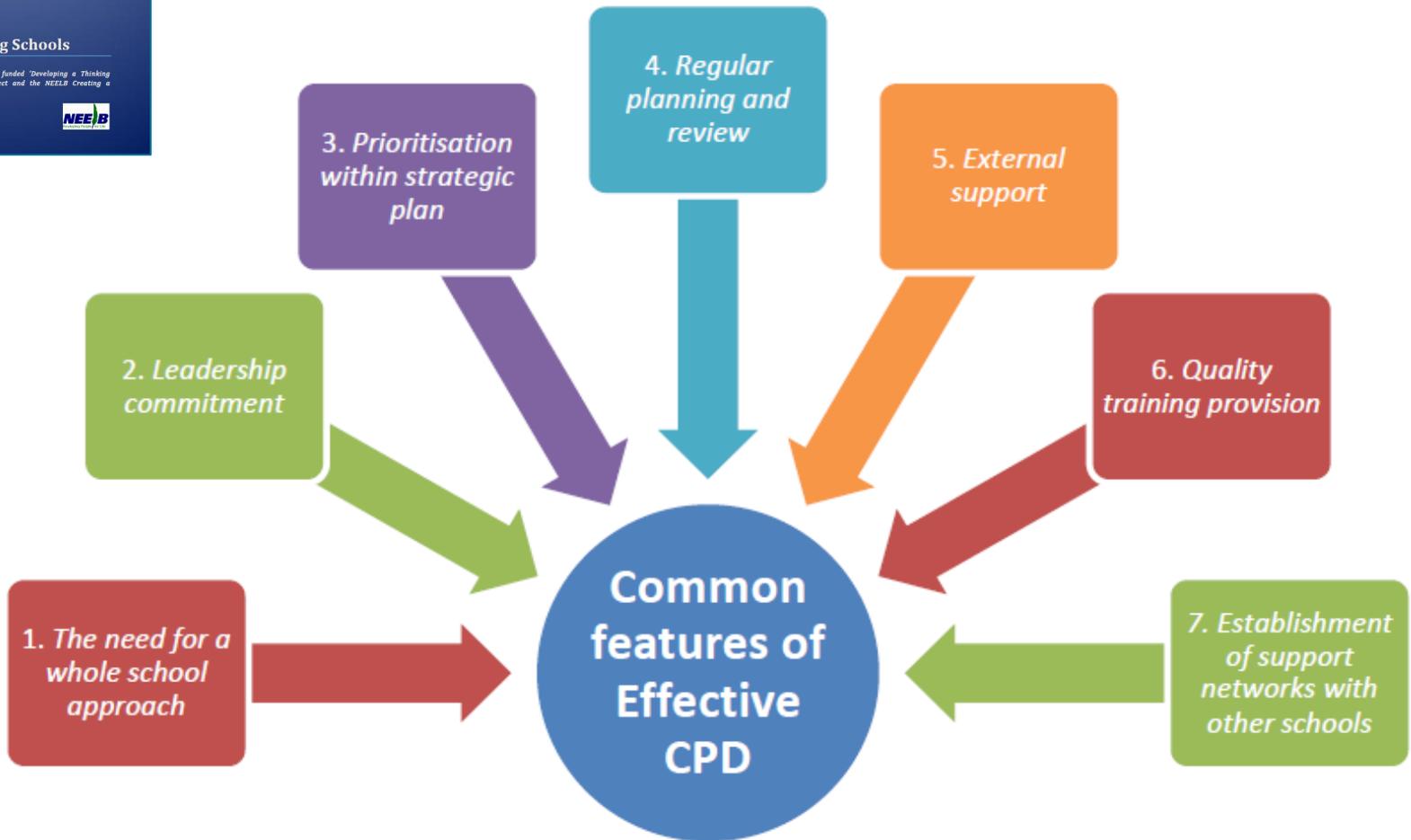
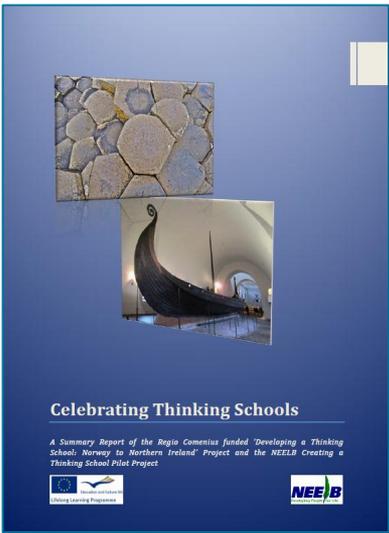


Celebrating Thinking Schools

A Summary Report of the Regio Comenius funded 'Developing a Thinking Schools Norway to Northern Ireland' Project and the NEZLB Creating a Thinking School Pilot Project.



- *High levels of motivation*
- *Use of thinking tools independently to approach tasks and solve problems.*
- *Improved quality and structure of writing*
- *Ability to make connections in their learning*
- *Being more aware of their thinking*
- *More able to work together and share ideas*
- *Tools used effectively for planning*
- *Language development for second language (Oslo)*
- *Increased confidence and improved risk taking*
- *Tools for problem solving especially children with learning/reading difficulties*
- *All children can use the same tools*



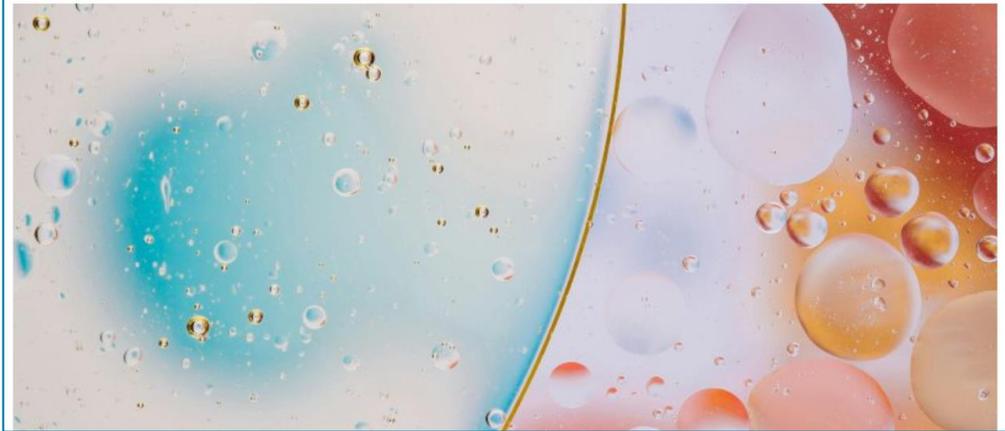


Whole-school metacognition: Implementing with impact

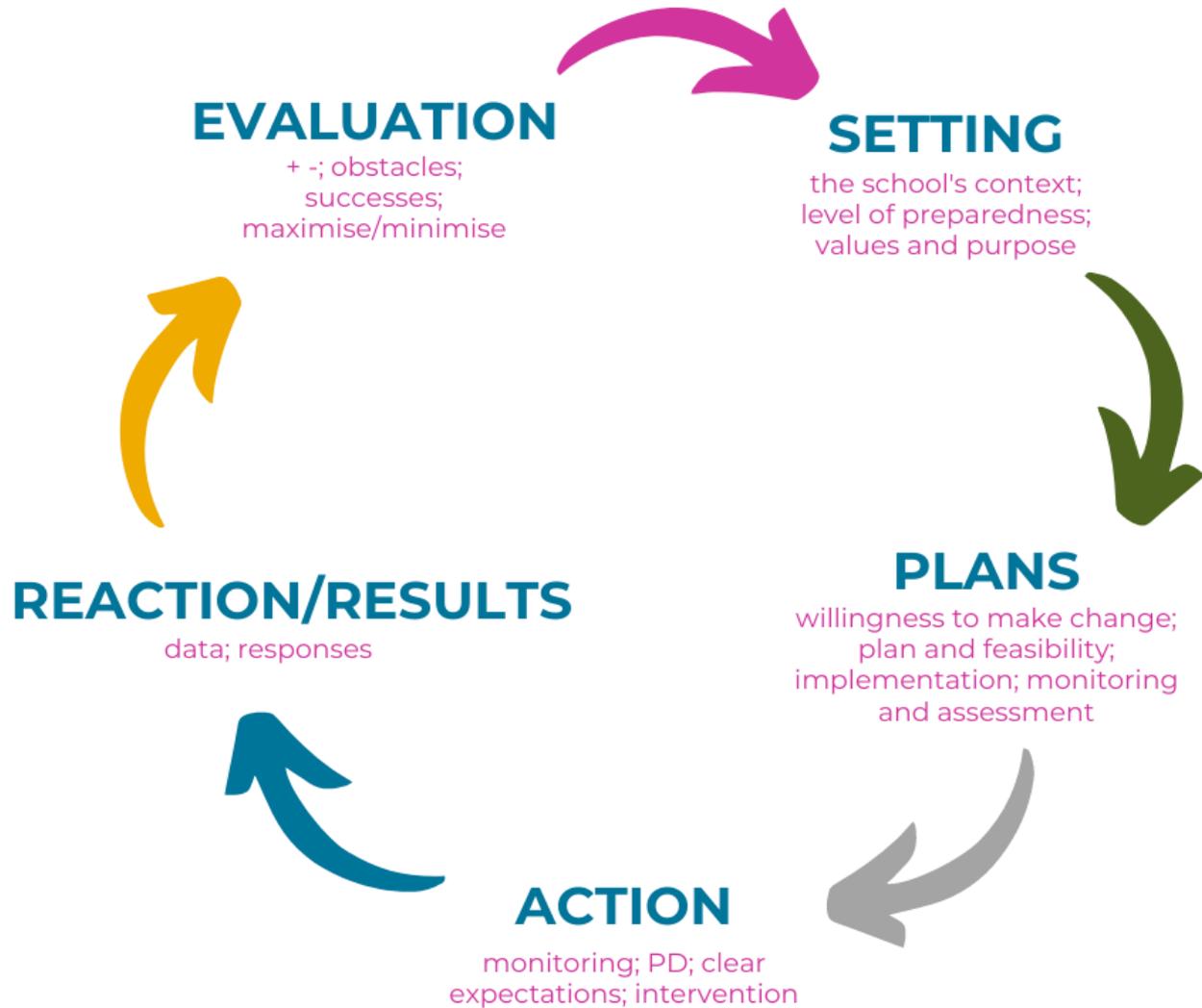
Case Study

Written by: Lorna Gardiner

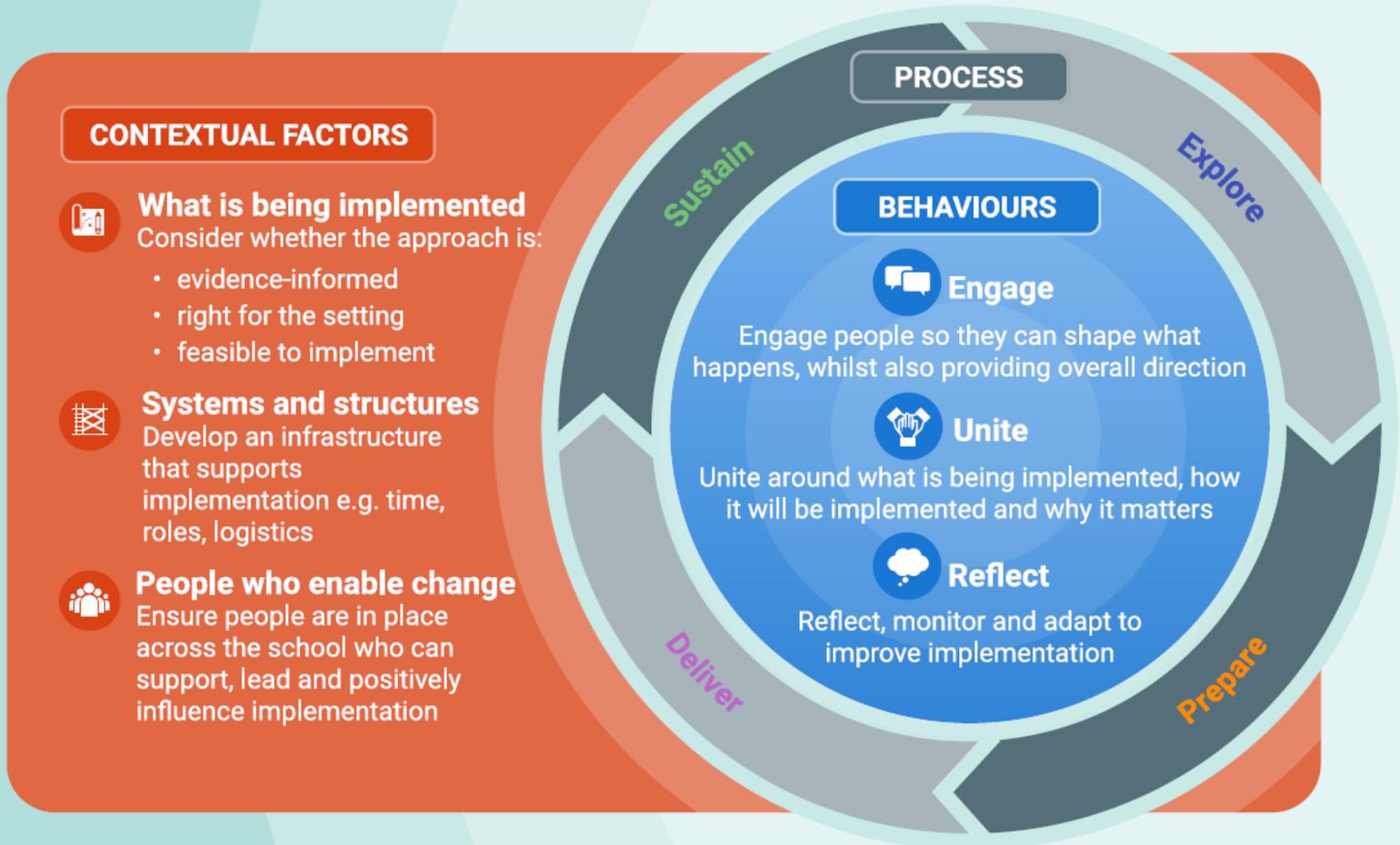
Published on: October 13, 2025



The SPARE Model...



Burden and Williams (1996)



The process helps schools do implementation. The behaviours and contextual factors help them do it well.

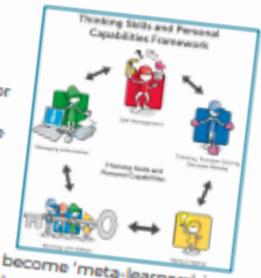
The Impact!

- Students as meta-learners – measurable gains
- Progress is evident in levels of oracy, independence, critical and creative thinking skills and quality of questioning
- Students have deepened their understanding of how to improve specific learning behaviours
- Teachers are becoming cognitive coaches - pedagogy has been refined, based on teachers' increasing knowledge of the science of learning and ongoing reflective practice
- There is a visible culture of thinking – use of a common language and common tools and strategies

Looking at Thinking Schools in Northern Ireland - a Review of Impact 2025

Looking Back

The introduction of what was colloquially known as the 'revised' curriculum in Northern Ireland (NI) in 2007 brought increased flexibility around curriculum content for schools and an emphasis on skills, defined within a [Thinking Skills and Personal Capabilities Framework](#). Since then, the development of students' critical and creative thinking skills has been a focus for development in many schools. A growing number of these schools have worked with a strategic intent towards becoming recognised



[Thinking Schools](#), pursuing the vision for their students to become 'meta-learners', i.e. metacognitive, self-regulating learners. This approach draws on research evidence from both the science of learning and implementation science. Schools commit to building a [visible culture](#) of 'whole school metacognition' and specific evidence-informed metacognitive tools and strategies across the school.

[Rahymena Primary School](#) (PS) was the first school in NI to access training from Kestrel Consultancy based in England, now known as [Thinking Matters](#). In 2011 they then gained Thinking School accreditation with the University of Exeter. In 2009, advisers from the Curriculum Advisory and Support Service (CASS) of the North Eastern Education and Library Board (NEELB) initiated a 'Thinking Schools' action research project with a small group of primary schools. They were also granted Regio Comenius funding from the British Council to coordinate a Thinking Schools project which was very positively evaluated, partnering with Kestrel Consultancy, Oslo Education Authority, University of Oslo, four schools in Oslo and six local primary schools. One of these schools, [St MacNisri's PS Newtownabbey](#), also achieved Exeter accreditation in 2012. Since then, a small but steady number of schools have engaged with the approach, with [Crumran PS Clough](#) also gaining accreditation and subsequently developing their practice to become the first school in NI to gain Level 2 Advanced Accreditation in 2023.

Since the re-launch of the training and support programme under the Thinking Matters (TM) banner in 2018, which coincided with the establishment of a NI-based TM consultant, increasing numbers of schools in NI have engaged with the TM professional development model. Despite the potential impact of factors such as the COVID pandemic and extended periods of difficult industrial relations in NI, including action short of strike, a recent review of evidence in a number of these schools indicates significant and positive benefits of embedding this whole school approach.

In the context of the educational landscape in NI being on the cusp of significant transformation with the launch in March 2025 of the Department of Education's (DE)

“the school is clear that the focus on cognitive development through a whole school consistent approach to learning has improved children’s attitudes, improved their enjoyment, developed their independence, contributed to high quality teaching and led to better pupil progress”



“the school’s pedagogical approach is informed by clear development planning and CPD underpinned by a firm foundation of research and evidence. This sound research evidence base has allowed learning and teaching to move forward with purpose, coherence and impact”.

**PRIORY
INTEGRATED
COLLEGE
HOLYWOOD**



The children are reflective learners and evaluate their work confidently. The whole school focus on the development of thinking skills is successfully equipping the children with strategies to become lifelong learners.

Moira PS, Nov 2024

... the pupils apply their learning confidently in real-life contexts across the curriculum and develop well their thinking skills and personal capabilities.

In discussions with the pupils, they articulate well how they learn best, through, for example, the opportunities they have to use strategies to improve their work and engage in practical learning activities. They talked positively about how their teachers help them learn and support them when needed.

Killicomaine Junior HS, Nov 2024

The very successful whole-school approach to developing the children's thinking skills is underpinned by the skilful questioning by the staff and meaningful, planned opportunities for paired and group work.

From an early age, the children are taught to reflect on and express their feelings and to empathise with, and respect, others.

A key strength of the learning and teaching is the priority given to the development of the children's thinking skills. Through skilful questioning and effective paired and group work, the staff enable the children to reflect on, develop and explain their ideas and responses, and to consider carefully the views of others.

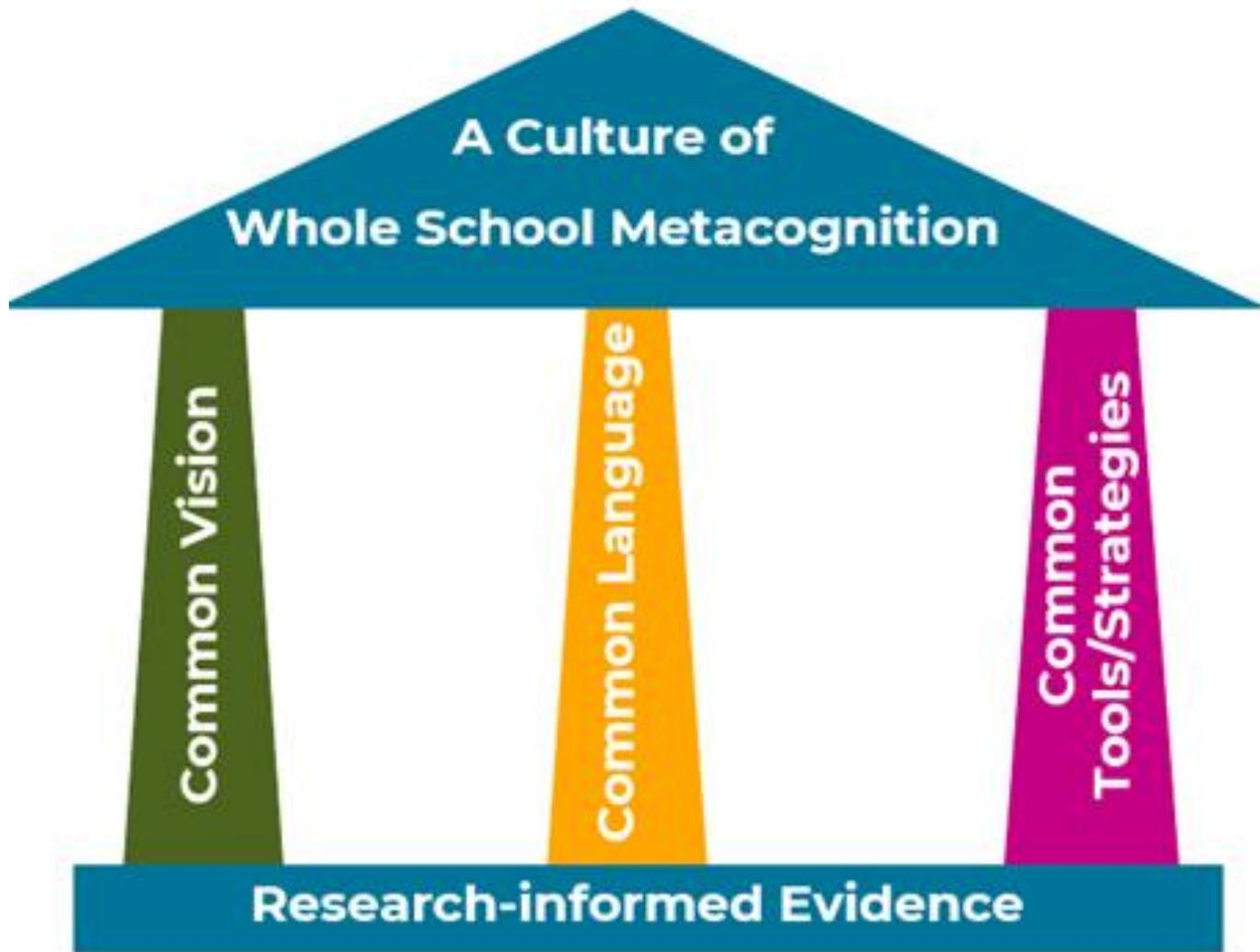
Edendork PS, Sept 2024

Staff professional learning is well-planned and aligned to the whole school priorities; the school is developing a 'Thinking School' pedagogical approach including a range of thinking frames and other metacognitive tools to help the pupils with planning their learning and developing their independent study skills. A 'drive' team, consisting of a range of staff across a majority of curricular areas, has been established to lead this learning and teaching strategy. The 'drive' team have: updated the learning and teaching policy with a common vision for learning in Killicomaine Junior High School; led on staff professional learning; and initiated learning walks to monitor the quality of the provision for learning and teaching across the school. *Killicomaine JHS, Nov 2024*

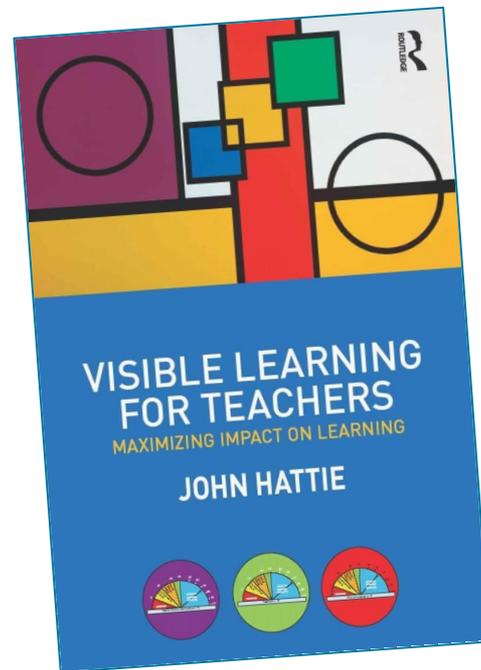
ETI will continue to work with Edendork Primary School, including to share examples of highly effective practice from which others may learn. The aspect of practice which should be shared more widely includes: the very successful whole-school approach to the development of the children's thinking skills. *Edendork PS, Sept 2024*

The senior leaders foster a vibrant and inclusive community of learning which prioritises the ongoing professional learning of all staff... Significantly, the medium- and short-term planning addresses explicitly the development of the children's thinking skills and personal capabilities central to the Northern Ireland Curriculum. As a result, during their lessons, the children manage information skilfully, work maturely with their peers and approach tasks flexibly and creatively. The ETI will continue to work with St MacNissi's Primary School, including to share examples of highly effective practice from which others may learn. The aspects of practice which should be shared more widely are: the whole-school focus on the development of thinking skills...

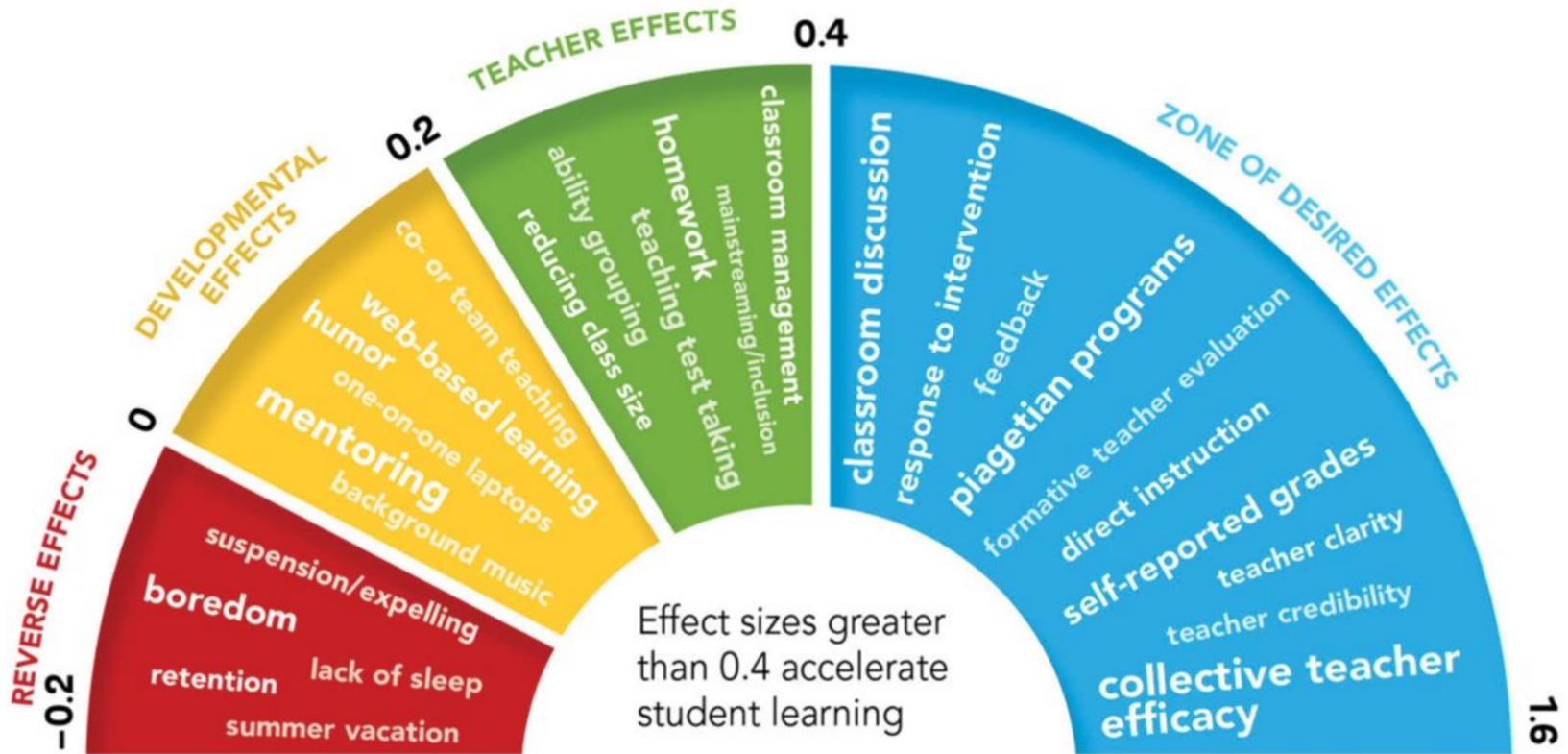
St MacNissi's PS, Newtownabbey, Nov 2024



Know thy impact and importance!



Professor John Hattie (2012) *Visible Learning for Teachers. Maximizing Impact in Learning.*



Collective Teacher Efficacy is the collective belief of teachers in their ability to positively affect students. With an effect size of $d=1.57$ Collective Teacher Efficacy is strongly correlated with student achievement.

Visible Learning Barometer of Influences. (c) 2019 Corwin and Osiris



TransformED NI:

**Transforming Teaching and Learning:
A Strategy for Educational Excellence in
Northern Ireland**

March 2025



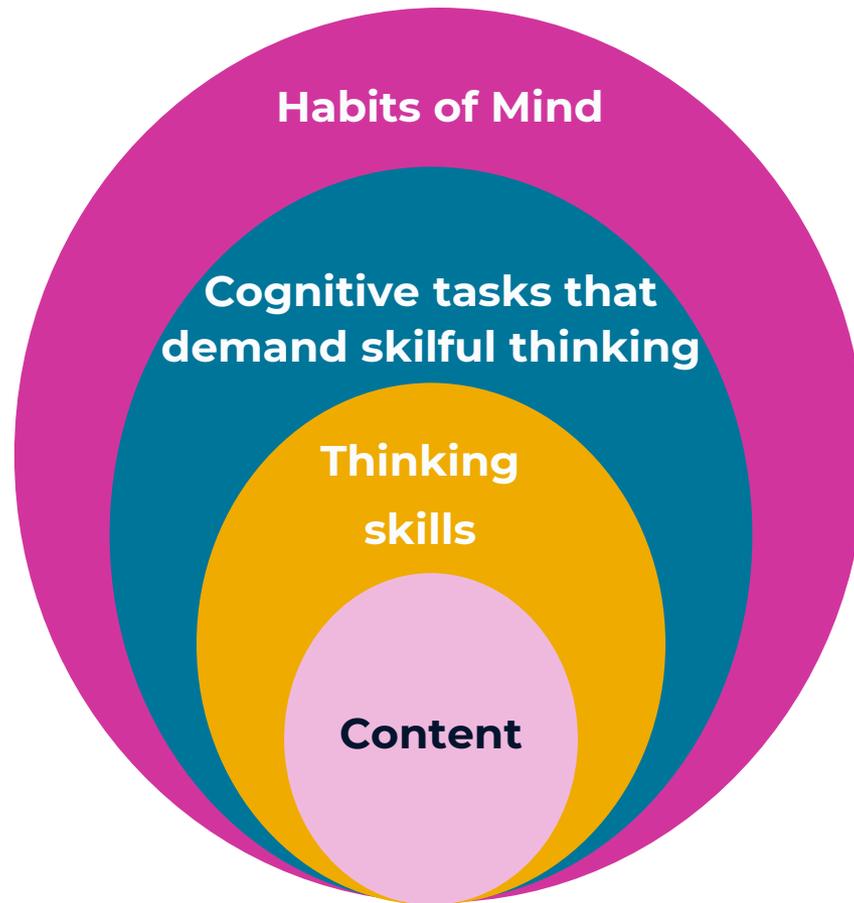
A Strategic Review of the Northern Ireland Curriculum

**A Foundation for the Future:
Developing Capabilities Through
a Knowledge-Rich Curriculum in
Northern Ireland**

Lucy Crehan
June 2025

- **Purpose-led** – driven by the revised aim and objectives of the Northern Ireland Curriculum.
- **Knowledge-rich** – based on the understanding that deep and connected knowledge forms the foundation for complex thinking skills.
- **Continuous and coherent** – carefully sequencing knowledge and skill over time and making meaningful links across subjects.
- **Specific and focused** – clearly articulating important concepts, ideas and specific skills pupils should learn and leaving time for them to do so.
- **Inclusive and flexible** – capable of responding to the diverse needs of learners, schools and communities.

Costa and Kallick's Nested Model



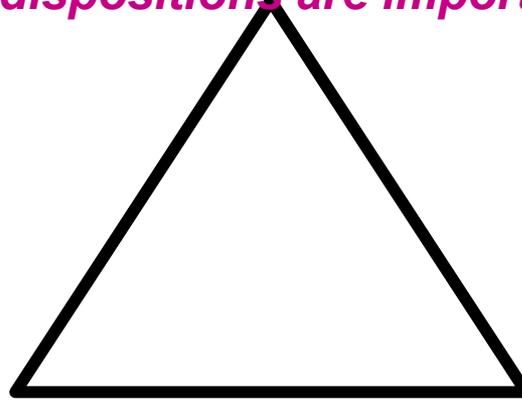
Costa, A.L. and Kallick, B. (eds.),(2008), Learning and Leading with Habits of Mind, ASCD

**What do we want pupils to learn?
(curriculum)**

What do the pupils want to learn?

What interests and motivates them? What are they curious about?

What skills, attitudes and dispositions are important as well as knowledge?



**How do we teach them?
(Pedagogy)**

How do pupils learn?

How does my understanding of the

science of learning inform my pedagogy?

*Are the pupils active agents in the
teaching and learning process?*

**What have they learnt?
(Assessment)**

*How effectively have they
learned?*

*How are they feeling about their
learning?*

*Are they taking responsibility for
their own learning and progress?*

The reflective (thinking) teacher?

Psychology

EEF

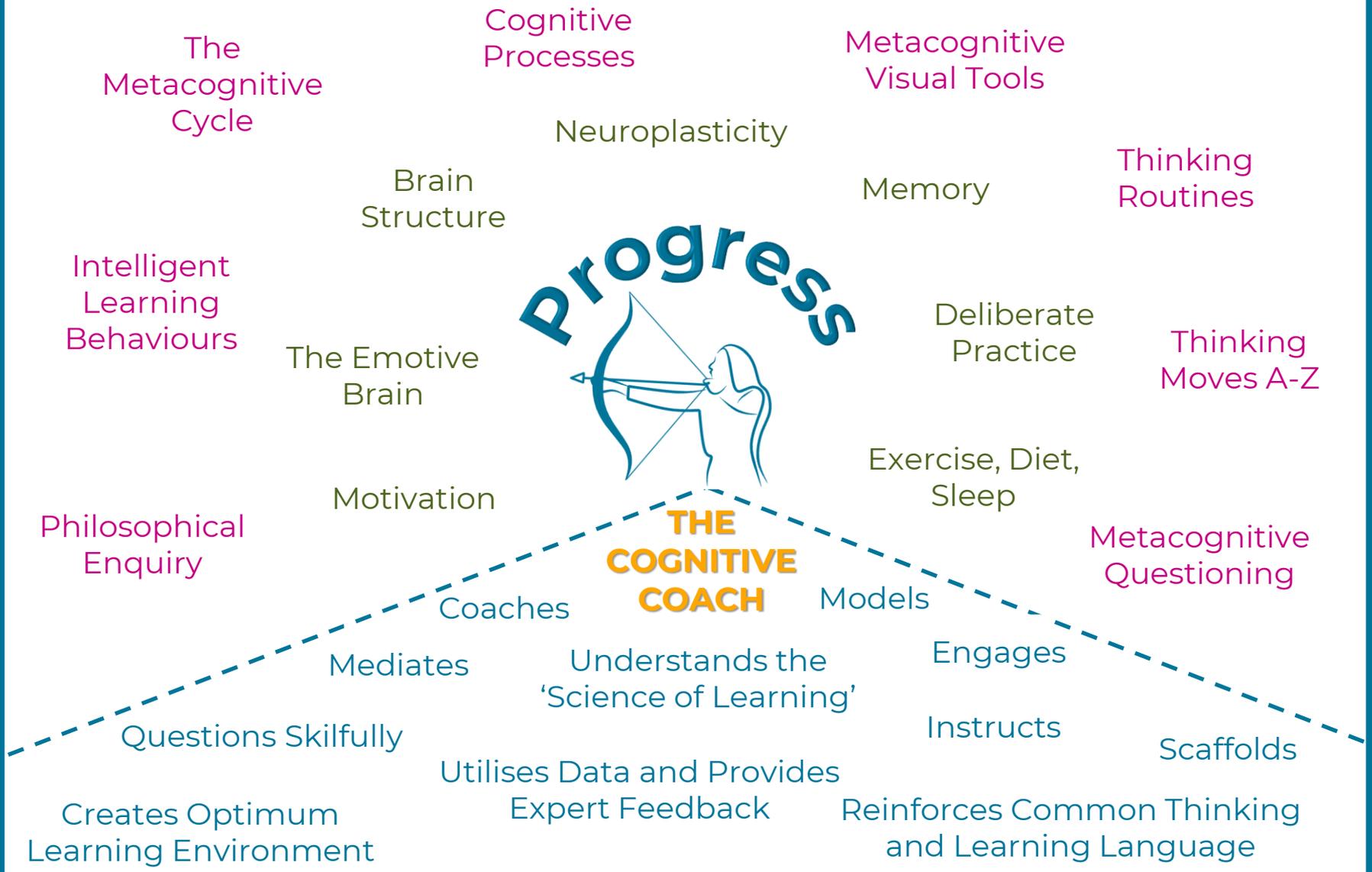
Hattie et al

Neuroscience

DEVELOPING METACOGNITION AND SELF-REGULATION



THE COGNITIVE COACH



Vygotsky

Rosenshine

Ericsson

Hyerle

Sutcliffe

Bloom/Anderson & Krathwohl

Costa & Kallick

Richhart et al

THOUGHTS FROM STEVE COVEY ...

The main thing is to keep the
main thing the main thing.