hachette LEARNING

SLICE TEAMS:
FROM TOP-DOWN FAILURE TO LASTING SCHOOL IMPROVEMENT

By Dr James Mannion

DECEMBER 2025

About the author

Dr James Mannion

Dr James Mannion is a teacher trainer and government advisor specialising in implementation and improvement science. He is the creator of *Making Change Stick*, a comprehensive school improvement programme developed over ten years and trialled in partnership with schools across the UK and internationally. This long-term, global research and development effort forms the basis of his book *Making Change Stick: A Practical Guide to Implementing School Improvement* (Hachette Learning, 2025).

James is the co-founder and Director of Rethinking Education, an organisation that supports schools, trusts and public bodies to design, test and embed high-quality improvements that last. A former teacher and school leader with 12 years' classroom experience, he has an MA in person-centred education from the University of Sussex and a PhD in self-regulated learning from the University of Cambridge. His doctoral research underpins much of his later work on learner agency, habit formation, collective efficacy and the organisational conditions required for sustainable change.

James created the Welsh Government's national Learner Effectiveness Programme, a large-scale initiative designed to strengthen learner agency and improve outcomes across the 14-16 curriculum. He also serves on the Welsh Government's Literacy Expert Panel. He has worked with hundreds of schools and multi-academy trusts to build capacity for disciplined, evidence-informed improvement using the tools of implementation and improvement science.

He is the co-host of the popular *Rethinking Education* podcast, and a regular contributor to national and international conversations on education reform.

CONTENTS

EXECUTIVE SUMMARY

School improvement efforts routinely fail to achieve their intended impact. Teacher surveys, organisational research and large-scale evaluations all point to the same conclusion: only around 20-30 per cent of initiatives lead to measurable, sustained improvements in pupil outcomes. In practice, the success rate may be even lower. This pattern is not unique to education; it mirrors findings from healthcare, public services and major philanthropic programmes.

This white paper argues that two structural issues underpin this persistently low success rate.

First, teachers and school leaders are not taught the practical disciplines of implementation and improvement science. In England and Wales, the training that most current school leaders received gave little or no attention to how change implementation actually works in complex environments: how to diagnose problems precisely, design workable strategies, build routines, collect meaningful evidence, and sustain change over time. Recently updated frameworks for school leadership provide high-level principles but not the operational tools and strategies needed to guide real-world implementation.

Second, school improvement is dominated by top-down decision-making. This model works for simple problems that lend themselves to straightforward solutions, but is ill-suited to the adaptive, relational and context-dependent nature of whole-school improvement. Top-down change suppresses professional judgement, overlooks variation, neglects tacit knowledge and generates low buy-in. As a result, implementation is fragile: compliance rises under scrutiny but fades once attention shifts elsewhere.

Slice teams offer a practical, scalable solution to these structural weaknesses. A slice team is a diverse, representative group that brings together stakeholders from throughout the school community to identify problems, design improvements, test ideas, gather evidence and refine strategies. Slice teams deepen diagnostic accuracy, build trust and ownership, enable rapid feedback loops and build leadership capacity. These mechanisms directly address the causes of implementation failure, making improvement more reliable.

The effectiveness of slice teams is supported by evidence from implementation science and improvement science. Healthcare research shows that multidisciplinary teams can achieve rapid, system-wide improvements, dramatically reducing the time lag and the gap between research and practice. Improvement science demonstrates the power of structured inquiry, small-scale testing and user-centred design. In education, seven years of work with slice teams across the UK and internationally reveals consistent patterns: stronger decision-making, deeper buy-in, reduced wasted effort, clearer evaluation and sustained improvements over time.

The white paper also presents the implementation equation: **what × how = impact.** Even the strongest evidence-based practice will fail if implemented poorly; conversely, strong implementation can significantly enhance the impact of existing approaches. Slice teams directly strengthen the "how", increasing the likelihood that the strategies schools invest in will translate into meaningful improvements in children's lives.

The paper concludes with recommendations for schools, trusts, publishers and policymakers. These include beginning with one slice team focused on one well-defined problem; providing structured training in implementation and improvement science; aligning work with strategic priorities; testing and refining before scaling; and embedding slice teams in policy design and implementation.

The status quo – where most change efforts fail to produce lasting impact – is not inevitable. By adopting the lessons of improvement and implementation science, and by placing slice teams at the heart of school improvement, it is possible to build a more reliable, humane and effective approach to change. This shift would not only improve teaching and learning but would materially enhance the life chances of children and young people.

1. INTRODUCTION

1.1 A familiar pattern of failure

As you look back over your career, roughly what proportion of change initiatives demonstrably led to improved pupil outcomes, which were sustained over several years?

In 2024, the polling organisation Teacher Tapp put this question to around 10,000 teachers. Almost half of the respondents estimated the success rate to be less than 20%, and 71% placed the figure at less than 30% (cited in Mannion, 2025).

This aligns with a wider pattern across sectors. Organisational studies routinely find that most improvement efforts do not achieve their intended outcomes, and that even when gains occur, they are rarely sustained. As John Kotter (2008) famously observed:

> **'More than 70% of needed change either fails to be launched, fails to be completed, or finishes over budget, late and with initial aspirations unmet.'**

The picture in education is remarkably similar. Over the last 15 years, the Education Endowment Foundation (EEF) has conducted more than 200 large-scale evaluations of "promising interventions". Of those published to date, just 30.5% reported a positive impact on pupil learning; 69.5% showed no impact or a negative impact. Even under favourable conditions – careful screening, rigorous evaluation and structured support – only around one in three initiatives leads to measurable improvements in attainment.

In reality, the situation may be even more stark than these figures imply. Over the last decade, the author has posed this question to thousands of teachers and school leaders at conferences and training events. When pressed for specific examples of initiatives that produced demonstrable improvements in pupil outcomes, with gains that were sustained over several years and are still evident today, many educators revise their estimate down to the low single digits.

1.2 A global issue

International research points in the same direction. Analyses by Michael Fullan, the RAND Corporation and others highlight recurring problems: limited fidelity of implementation, inconsistent adoption, initiative overload, weak alignment between national policy and classroom realities, and reforms that fail to embed over time (Fullan, 2016; Stecher et al., 2018).

Philanthropic efforts tell a similar story. The Bill & Melinda Gates Foundation's High Schools Grants Initiative, launched in the early 2000s, invested more than

$2 billion in breaking large high schools into smaller learning communities. As Bill Gates later acknowledged, 'simply breaking up existing schools into smaller units often did not generate the gains we were hoping for' – a result he described as 'disappointing' (Gates, 2018).

1.3 The consequences of unreliable improvement

Across teacher surveys, change-management research and large-scale evaluations, the conclusion is strikingly consistent: very few school improvement efforts achieve sustained impact even when supported with substantial resources and expertise. The status quo has been described powerfully by Bryk and colleagues (2015):

> **'Believing in the power of some new reform proposal and propelled by a sense of urgency, educational leaders often plunge headlong into large-scale implementation. Invariably, outcomes fall far short of expectations. Enthusiasm wanes, and the field moves on to the next idea without ever really understanding why the last one failed… Such is the pattern of change in public education: implement fast, learn slow, and burn goodwill as you go.'**

The result is a set of deep-rooted problems that persist from one year to the next:

- A widening disadvantage gap (Education Policy Institute, 2025)
- Worsening literacy rates (National Literacy Trust, 2025)
- An escalating attendance crisis (IPPR, 2025)
- A spiralling mental health crisis (NHS Digital, 2024)
- Chronic recruitment and retention challenges (Gatsby Foundation, 2025)
- Challenges around behaviour and disengagement (NASUWT, 2025)

These issues are often treated as separate problems, but they are deeply interconnected. Each is made worse by our collective inability to implement improvement reliably. If we could do this more effectively, we could strengthen literacy, improve attendance, reduce the load on mental health services, stabilise the profession, and narrow long-standing inequalities. In short, better implementation would materially improve the quality of young people's lives.

To identify solutions, we must first understand the underlying causes. Why is the success rate of school improvement initiatives so low? And what can be done to change it?

2. WHY DO SO FEW CHANGE INITIATIVES ACHIEVE THEIR INTENDED GOALS?

The evidence outlined above suggests that most school improvement efforts fail to achieve sustained impact, even under favourable conditions. Many factors contribute – policy churn, workload pressures, limited resources and competing priorities – but two root causes are particularly important. Both are under-recognised in current policy and practice, and each offers unusually high leverage for improving the reliability of school improvement.

2.1 Root Cause 1: Teachers and school leaders are not taught about implementation and improvement science

Initial teacher training, leadership development and most professional qualifications have traditionally focused on curriculum, pedagogy, assessment and organisational management. Little attention has been paid to the practical discipline of implementation: how to diagnose problems precisely, design an improvement strategy, sequence actions, build habits, engage staff, test ideas, collect evidence and sustain change over time (Fixsen et al., 2005; Fullan, 2016).

To become a school leader in England and Wales, you must complete a National Professional Qualification (NPQ). At the time of writing, there are five leadership NPQs (senior leadership, headship, executive headship, early years leadership, and one for special educational needs and disabilities (SEND) coordinators) and five specialist NPQs (leading teacher development, leading teaching, leading behaviour and culture, leading literacy, and leading primary mathematics). This suite of qualifications was introduced in 2021, replacing a legacy suite of four NPQs (middle leadership, senior leadership, headship and executive leadership).

Under the legacy generation of NPQs – the training received by most of today's school leaders – implementation guidance was almost entirely absent. As a result, generations of leaders entered senior roles with little formal preparation for one of the most important aspects of their work: implementing school improvement initiatives.

The reformed (post-2020) NPQs now include a section on implementation, but this is largely based on a high-level conceptual framework adapted from the EEF's implementation guidance (EEF, 2024). While valuable as an overview, it is not designed as an operational, step-by-step guide and lacks the practical scaffolding required to lead improvement in real-world contexts.

As the headteacher Alasdair Kennedy observed:

> **'People don't talk enough about the science of implementation, and equally the training is very scarce… it's such a key area of understanding… yet we've never really been trained in it.' (cited in** Mannion**, 2025)**

As a result, school leaders are routinely expected to diagnose problems, design strategies, plan communications, identify risks, collect baseline data and evaluate impact – without having been provided with training or guidance in how to do these things well. The gap between the demands of implementation and the support provided to enact it is substantial.

A more granular approach is required. Over the last seven years, the author has developed a new approach to leading change in schools, presented in *Making Change Stick: A Practical Guide to Implementing School Improvement* (Mannion, 2025). This framework draws together tried-and-tested tools, concepts and strategies from a range of fields – including implementation science, improvement science, organisational learning, behavioural psychology and systems thinking. Unlike high-level guidance, this framework provides concrete tools and strategies that are either absent from the EEF model or receive only brief mentions, including:

- The use of representative change teams
- Communications planning
- Building trust and securing buy-in
- Values mapping
- Backward design
- Root cause analysis
- 'Tight but loose' implementation
- Understanding diffusion of innovations
- Building steps to success
- Optimising for habit change
- Planning data collection (baseline, impact and side-effects)
- Pre-mortem analysis
- Project management tools
- PDSA (Plan-Do-Study-Act) cycles
- Pivot-or-persevere meetings

In short, school leaders are expected to improve pupil outcomes but are not taught how to implement change effectively, and the tools they are given are insufficiently detailed. This is a major structural weakness in the system.

2.2 Root Cause 2: The limitations of top-down change

The second root cause is cultural rather than technical. Schools, like many public institutions, are organised hierarchically: decisions are made at senior level – often privately – and 'announced' to staff. This top-down model is so familiar that it is rarely questioned.

Top-down decision-making can be effective when a problem is simple, the solution is clear and compliance can be enforced uniformly. In the UK,

the introduction of mandatory seat belts (1983) and the ban on smoking in enclosed public spaces (2007) are good examples of this, characterised by a clear problem, a simple solution, and rapid, population-wide adoption.

Systems theorists describe such problems as 'complicated but not complex': linear cause-and-effect relationships, identical behaviours required from everyone, and straightforward enforcement.

School improvement does not fall into this category. Schools are complex systems in which outcomes emerge from dynamic interactions between people, routines and contexts. Cause and effect are non-linear; strategies that work in one classroom may fail in another; and success depends on relationships, judgement, trust and responsiveness. Whole-school improvement cannot be mandated into existence through directives.

Decades of organisational research show that top-down approaches are poorly suited to complex environments (Janis, 1971; Kotter, 2008; Fullan, 2016; Fixsen et al., 2019; Stecher et al., 2018). Effective implementation depends on agile, responsive practice: genuine buy-in, testing ideas on the ground, rapid learning from evidence, fluid communication and real-time adaptation.

Top-down change provides none of these conditions. Instead, it is characterised by:

- Black-box leadership, where decisions are made without transparency;
- The natural human tendency to resist or ignore policies one does not believe in, or have a hand in shaping;
- Us-and-them cultures that divide senior leaders and classroom practitioners;
- Compliance mindsets that prioritise appearance over substance;
- Groupthink, resulting in poor decision-making and predictable blind spots.

These features undermine the very capacities that complex work depends on. The predictable consequences include: underused expertise, overlooked local knowledge, strategies designed without sensitivity to subject or year-group variation, low buy-in, and shallow compliance that evaporates once monitoring ends.

In short, top-down change is not merely ineffective; it is structurally misaligned with the realities of school improvement. Yet it remains the dominant model in most settings.

3. THE SLICE TEAM SOLUTION

The two structural problems outlined above – a lack of training in implementation and improvement science, and the limitations of top-down change – suggest the need for a different approach to school improvement. An effective model must:

(a) collate and cultivate expertise rather than centralise it;

(b) generate trust and buy-in rather than compliance; and

(c) create the conditions for disciplined, iterative learning.

Slice teams are a practical operating system for achieving these aims, drawing on principles well-established in implementation science (Fixsen et al., 2019), improvement science (Bryk et al., 2015) and organisational learning (Fullan, 2016).

3.1 What is a slice team?

A slice team is a small, diverse group that represents a cross-section of the organisation. In schools, this typically includes senior leaders, middle leaders, teachers, the SENDCo, classroom assistants, governors and support staff. Wherever appropriate, parent/carer and student voices should also be included. These are ultimately the most important stakeholders in education, and their insights can be vital – though they need not be involved at every stage. Often, targeted involvement during problem definition, early design consultation or impact evaluation is sufficient.

The key idea is that improvement work is shaped by multiple perspectives, not a narrow leadership view. Slice teams lead a structured process of diagnosis, design, testing, evidence collection and refinement, acting both as an engine of innovation and as a bridge between senior leadership and the wider school community.

3.2 Three ways to use a slice team

Slice teams can operate in different modes depending on a school's context and capacity:

(a) **Consultation.** Leaders design the improvement strategy but invite a slice team to provide a one-off or occasional consultation at key decision points. The aim is to surface insights, risks and blind spots before plans are finalised. This approach can be useful when capacity is limited, but only adds value if the consultation is genuine rather than tokenistic (Mannion, 2025).

(b) **Steering group.** In this model, senior leaders drive the improvement effort and report regularly to a slice team (typically half-termly) to share progress and to receive feedback and accountability.

(c) **Working party**. This is the most time-intensive model, but it offers the greatest benefits in terms of trust, buy-in and implementation quality. Here, decision-making is devolved to the slice team, who take responsibility for planning, testing and implementation. This approach maximises ownership, builds leadership capacity and cultivates collective efficacy – one of the most powerful drivers of school improvement (Hattie, 2015).

These modes offer flexibility while retaining the core principle: improvement is more effective when it draws on the organisation's collective expertise rather than relying solely on top-down direction.

3.3 Why slice teams work

Slice teams address the weaknesses of the traditional top-down model in five ways.

1. **They enable richer decision-making.** Bringing together diverse roles and expertise reduces blind spots and leads to a more accurate understanding of the problem. Strategies are therefore more realistic, implementable and context-sensitive.
2. **They create authentic ownership.** When people help define problems and shape solutions, they are far more motivated to implement them. Slice teams cultivate trust, social capital and what Fullan (2023) calls 'joint determination'.
3. **They accelerate feedback loops.** Because slice-team members are distributed across the school, they can observe how strategies work in practice, gather informal and formal data, and identify barriers early. This enables rapid adjustment rather than slow, reactive course-correction.
4. **They distribute leadership and build capacity.** By involving staff at multiple levels, slice teams strengthen collective agency and build internal expertise.
5. **They improve implementation fidelity.** People implement strategies more reliably when they have helped design and test them. Slice-team members can model new practices, support colleagues and help embed improvements over time (Mannion, 2025).

Taken together, these mechanisms make slice teams a practical and robust vehicle for leading improvement in complex systems. They mobilise expertise, deepen commitment and dramatically increase the reliability of implementation. These claims are supported by a growing body of evidence from healthcare, improvement science and schools using slice teams in practice.

4. THE EVIDENCE FOR SLICE TEAMS

Although slice teams are not yet widely used in education, the underlying idea is well established in other sectors. Structures with similar features – vertical slice teams, multidisciplinary teams, implementation teams, transformation zones and Networked Improvement Communities (NICs) – all rest on the principle that improvement becomes more reliable when diverse groups work together through iterative cycles of learning.

The strongest evidence base comes from healthcare, where implementation challenges are well documented and where cross-hierarchical teams have repeatedly improved outcomes. A smaller but growing practice base has begun to take root in UK schools and internationally over the last seven years (Mannion, 2025). What follows summarises key lessons from healthcare and improvement science before turning to emerging evidence from schools.

4.1 Implementation science: lessons from healthcare

Implementation science is a relatively new field of study, primarily focused on healthcare. One of the field's central concerns is examining the extent to which best practice is actually used in real-world settings. Measuring this precisely is difficult, given the scale and complexity of healthcare, but the evidence we do have is alarming.

Dean Fixsen and colleagues estimate that it takes an average of 17 years for only around 14% of evidence-based practices to become routine across a system (Fixsen et al., 2019). Even when we know what works, most people continue using outdated or less effective approaches for many years.

This problem is longstanding. After the discovery of germ theory, it took decades for routine handwashing to become standard medical practice, during which millions of preventable deaths occurred (Gawande, 2013). The difficulty lies not in discovering effective improvement strategies, but in embedding them reliably into routine practice.

Slice teams offer a powerful means of reducing the lag and rapidly increasing the uptake of effective practices (Fixsen et al., 2019). An illustrative case study comes from Cincinnati Children's Hospital. In the mid-2000s, clinicians were concerned about rising hospital admissions due to asthma. The question was not 'What works?' – effective medication was already well established. The question was why children's symptoms were still escalating to the point of hospitalisation. This was a classic implementation problem.

To address the issue, Cincinnati Children's Hospital assembled a multidisciplinary slice team called the Asthma Improvement Collaborative which comprised clinicians, respiratory specialists, school nurses and pharmacists, as well as asthma patients and their families. Through a process

of collaborative inquiry, they were able to rapidly uncover the root causes of the problem.

School nurses highlighted that many children forgot to bring their inhalers to school – so they made sure that asthma medication was always available in school. Pharmacists revealed that many prescriptions went uncollected – so they delivered the medication to people's homes. Families described damp and mould in rental housing that exacerbated symptoms – and so they provided chemicals and equipment to tackle mould, and in some cases, provided legal aid to take on negligent landlords. Whenever the team encountered an implementation barrier, they devised a practical solution to address the issue at its roots.

The results were dramatic. Within five years, admissions more than halved; over the next three years, readmissions fell by another 50%. Schools saw fewer absences, families lost fewer workdays and hospitals saved around $3,600 per stay (McCarthy & Cohen, 2013; Parikh et al., 2015; Kercsmar et al., 2017).

Fixsen et al. (2019) estimate that when representative change teams such as these are used, we can achieve around 80% uptake of 'best practice' within three years – a sharp contrast to the default 17-year, 14% trajectory.

4.2 Improvement science and Networked Improvement Communities

While implementation science focuses on scaling up effective practices, improvement science comes earlier in the process, and is concerned with situations where solutions are not yet clear (Bryk et al., 2015). The Carnegie Foundation has formalised this approach through the use of Networked Improvement Communities (NICs): cross-institution collaborations that define a common problem, build a theory of improvement, test changes through Plan-Do-Study-Act (PDSA) cycles, gather data and refine ideas iteratively.

A landmark example is the Community College Pathways initiative in the United States, which aimed to solve extremely low progression rates in developmental mathematics. Through school-level NICs – slice teams by another name – colleges created Statway and Quantway courses designed to help students earn a college-level maths credit in one year instead of two.

The outcomes were striking. Traditionally, students study college maths for two years with a 15% pass rate. The pass rate among students who took the Statway course was 54% – more than tripling the pass rate in half the time. Similarly, only 29% of students traditionally completed developmental mathematics over two terms; on the Quantway course, 63% of students completed the course in just one term (Huang, 2018; Lewis, 2015; Silva & White, 2013).

4.3 Slice teams in schools

The Asthma Improvement Collaborative and Community College Pathways are just two of many examples of how implementation and improvement science have been used to improve outcomes in healthcare and educational settings. To date, however, these approaches remain the exceptions to the rule – especially in education, where the status quo is characterised by ineffective implementation and suboptimal outcomes.

Over the last seven years, the author has been working with slice teams in schools across the UK and internationally, including primary, secondary and all-through schools, multi-academy trusts, alternative provision settings and a national pilot in Wales supported by the National Academy for Educational Leadership. Across these contexts, staff consistently report stronger buy-in, better decision-making and more reliable implementation:

> **'The impact has been huge. Everyone having a voice has made a huge difference… Now we've got buy-in, we've got the relationships and we've also got a collaborative culture and consistency.'**
>
> *(Sarah O'Kelly, Deputy Headteacher, Queen Elizabeth High School)*

> **'Now, we've got members of staff from the SLT, middle leaders, experienced staff, Early Career Teachers, teaching assistants, governors, pupils – effectively, every stakeholder is covered, meaning everyone's got a voice in that change. This makes buy-in across the school far more powerful.'**
>
> *(Sean Thomas, Raising Standards Leader, Milford Haven School)*

> **'People just came into it really open-minded and excited… The impact for me has been on the engagement of our staff.'**
>
> *(Katie Crockford-Morris, Head of Years 5 & 6, Pembroke Dock Community School)*

> **'For me, the widest impact has been on involving the wider members of our school community, removing the idea of a top-down approach… and involving the whole community to ensure change is lasting.'**
>
> *(Cat Place, Headteacher, Jubilee Park Primary School)*

Across hundreds of schools, the emerging picture is remarkably consistent: slice teams improve decision-making, strengthen ownership, reduce wasted effort, sharpen evaluation and build internal implementation capability. These conclusions are based on practitioner testimony rather than formal independent evaluations, and further rigorous evaluation is needed. Nonetheless, the early evidence suggests that slice teams create the cultural and relational conditions in which improvement can take root and endure.

5. HOW SLICE TEAMS IMPROVE IMPLEMENTATION QUALITY

The evidence in Section 4 shows that slice teams strengthen implementation through a small number of powerful mechanisms. Two are especially important because they address the structural weaknesses identified in Section 2: improved decision-making and stronger buy-in.

5.1 Improved decision-making

Effective implementation begins with understanding the problem accurately. In many schools, strategic decisions are made by a small group of senior leaders, which increases the risk of blind spots and misdiagnosis (Kahneman & Klein, 2009; Janis, 1971). Slice teams counter this by bringing together people with different vantage points: classroom teachers, pastoral and support staff, middle leaders, and senior leaders. This diversity improves diagnostic accuracy and ensures that decisions reflect the lived reality of classrooms.

Working through structured inquiry – for example, root cause analysis, PDSA cycles and pre-mortem analysis – helps teams challenge assumptions, anticipate barriers and test ideas safely before investing time and resources. PDSA cycles are particularly important: they allow schools to learn quickly, avoid over-committing to untested ideas and adapt strategies based on real evidence rather than intuition (Deming, 1994; Langley et al., 2009).

In short, slice teams make school improvement more reliable by widening the evidence base and replacing guesswork with disciplined inquiry.

5.2 Buy-in: The X-factor of implementation

The second mechanism is buy-in: the degree to which staff believe in and feel ownership over the change. Research in implementation science consistently identifies stakeholder engagement and psychological ownership as central determinants of implementation fidelity (Fixsen et al., 2005; Nilsen, 2015).

Top-down change may produce short-term compliance but rarely leads to sustained practice. Staff do what is required while someone is watching, but implementation fades when attention shifts – a dynamic widely recognised in both education and public service reform (Bryk et al., 2015).

Slice teams increase buy-in because staff are genuinely involved in diagnosing problems, shaping solutions and testing ideas. This aligns with established evidence on motivation and organisational change: people commit more deeply to what they have helped to create (Deci & Ryan, 2000; Senge, 2006). When staff see their fingerprints on the strategy, they are more likely to enact it consistently and adapt it thoughtfully over time.

Buy-in is therefore the implementation X-factor: without it, change rarely sticks; with it, implementation accelerates.

5.3 Linking decision-making and buy-in

These two mechanisms are mutually reinforcing. When decisions are informed by a wider range of perspectives, staff are more likely to recognise the problem and trust the solution. When staff feel ownership, they contribute more openly, raise concerns earlier and participate more actively in iterative testing. This reflects the wider literature showing that relational trust and distributed leadership improve both problem diagnosis and implementation quality (Bryk & Schneider, 2002; Leithwood et al., 2020).

Slice teams harness this virtuous cycle. By improving decision-making and deepening buy-in at the same time, they create an implementation process that is more honest, more adaptive and far more likely to succeed.

6. RECOMMENDATIONS FOR SCHOOLS, TRUSTS AND POLICYMAKERS

The evidence presented in this paper suggests that lasting school improvement become more reliable when two questions are addressed explicitly:

(a) What kind of problem are we trying to solve?

(b) Which approach – improvement science or implementation science – is most appropriate in this context?

Distinguishing between these two approaches is essential for designing an effective strategy.

6.1 When to use improvement science

Improvement science is most appropriate when a problem is complex, ill-defined or poorly understood, and when there is no clear evidence about what will work. Improvement science emphasises:

- Understanding the problem from the users' perspective
- Involving those closest to the work in the diagnostic process
- Trialling ideas through small, safe-to-fail tests
- Learning rapidly from early results
- Refining the approach through iterative cycles of inquiry

Slice teams are particularly effective for this type of work because they bring diverse perspectives into the process of understanding and applying the tools of improvement science to local contexts.

6.2 When to use implementation science

Implementation science is appropriate when there is strong evidence that a particular approach or practice is effective and the challenge lies in scaling it into routine practice. In these situations, the central question is not 'What should we do?' but 'How do we integrate this reliably across the organisation?' Implementation science emphasises:

- Habit formation and behavioural routines
- Clear communication and sequencing
- Tight-but-loose principles (clarity about expectations; flexibility in the 'loose' details)
- Identifying risks and unintended consequences in advance
- Ensuring fidelity without suppressing professional judgement
- Systems for monitoring, reinforcing and sustaining change

Slice teams strengthen implementation science by providing an infrastructure for feedback, accountability and support during rollout – conditions which research consistently shows are essential for sustained implementation (Nilsen, 2015; Fixsen et al., 2005).

6.3 Creating the time

Slice teams are efficient, but not effortless. Disciplined inquiry, PDSA cycles, evidence collection and collaborative decision-making all require protected space. Time is one of the scarcest resources in schools, and workload is one of the most significant barriers to successful implementation. If leaders want staff to work differently, they must also make clear what is being taken away to create the conditions for this work to take root.

One school the author worked with recently offers a clear illustration. They removed tutor time one morning a week, enabling lessons to begin at 8.30am instead of 9am. They shortened lessons that day from 60 to 55 minutes. Combined with disaggregating INSET days – spreading the time across the year rather than relying on one-off events – they created 90 minutes per week for every member of staff to engage in collaborative improvement work.

Schools that intentionally free up capacity – by stopping lower-value activities, redesigning timetables or repurposing professional development time – are far more likely to sustain disciplined improvement and keep staff with them.

6.4 Recommendations for schools and trusts

- **Protect time:** schedule regular, protected time for inquiry, PDSA cycles and data collection.
- **Start small:** begin with one slice team addressing one clearly defined problem.
- **Provide training and support:** ensure the slice team is familiar with the tools of implementation and improvement science such as root cause analysis, PDSA cycles and communications planning.
- **Align priorities:** ensure the slice team's work is clearly connected to the school or trust's strategic plan.
- **Evaluate early and often:** gather evidence on baseline conditions, early impact and unintended consequences.
- **Scale gradually:** once an approach is working reliably, use implementation science to scale it carefully across the organisation.

6.5 Recommendations for publishers and partners

- **Shift from content-led models to implementation-supported models:** resources alone rarely lead to change; programmes must be accompanied by practical support for disciplined implementation.

- **Work with slice teams rather than bypassing them:** involve the people closest to the work in creating and adapting materials and testing approaches.
- **Provide implementation tools:** offer clear guidance, example sequences, timelines, templates and scaffolds to support real-world implementation.
- **Avoid one-off inputs:** sustained change requires ongoing support, iteration and feedback.

6.6 Recommendations for government and system leaders

- **Embed implementation training in NPQs and leadership development:** ensure leaders are trained explicitly in both improvement science and implementation science.
- **Use slice teams in policy design and implementation:** engage practitioners, service users and frontline staff in diagnosing problems, shaping solutions and improving outcomes.
- **Invest in practice-based programmes:** support interventions that build real implementation capability, not just new content or frameworks.
- **Avoid top-down national initiatives that lack implementation support:** policies should be designed with clear routes for testing, iteration, and adaptation, and should involve slice teams to ensure accuracy and ownership.
- **Strengthen system learning:** create regular opportunities for sharing insights across schools, trusts and regions.

7. CONCLUSIONS

7.1 The core insight

The evidence presented in this paper points to a simple but profound insight. Most school improvement initiatives fail not because the ideas are weak, nor because educators lack commitment, but because the processes used to design and implement change do not align with the realities of complex systems. Schools are asked to solve difficult problems using approaches – top-down directives, limited consultation, high-level guidance – that research shows are ill-suited to the task.

7.2 What slice teams offer

Slice teams provide a practical, workable operating system for leading improvement in complex environments. By bringing together a cross-section of the organisation, they strengthen diagnostic accuracy, deepen ownership, accelerate learning and build the internal capacity required for sustained change – core principles of both improvement science and implementation science.

Slice teams are not a silver bullet, and they do not replace the need for clear communication, structured testing, thoughtful sequencing, attention to habits or long-term sustainability planning (Mannion, 2025). But the presence of a well-supported slice team remains one of the strongest predictors of reliable implementation, because it creates the conditions most consistently associated with successful change: ownership, distributed leadership, rapid feedback loops and fidelity balanced with contextual sensitivity.

7.3 The implementation equation

Schools face a significant and growing range of challenges: widening disadvantage, declining attendance, rising levels of need, increased behavioural complexity, a mental health crisis among children and adults, and chronic pressures on teacher recruitment and retention. Addressing these challenges requires both evidence-based practice and effective implementation. These two ideas can be seen as factors in an equation:

Figure 1. *The implementation equation*

The multiplication sign makes clear that if either the ‘what’ or the ‘how’ are ineffective, the outcomes will be ineffective also. A weak ‘how’ does not simply reduce the impact of the ‘what’; it collapses it.

This is the area where schools have the most leverage. While the wider environment may be challenging, leaders can build the culture, capacity and routines that make implementation more reliable.

Slice teams directly strengthen the ‘how’: they improve diagnosis, build trust and buy-in, accelerate learning, reduce wasted effort and cultivate collective efficacy. In doing so, they dramatically increase the likelihood that the strategies, resources and professional learning schools invest in will translate into meaningful, sustained improvements in children’s lives.

The status quo – in which most initiatives fail to produce lasting impact – is not inevitable. By adopting the lessons of implementation and improvement science, and by placing slice teams at the heart of school improvement, schools can devise solutions to problems, scale up what works, learn quickly, build leadership capacity and bring about a step change in the quality of people’s lives.

REFERENCES

Bryk, A.S. and Schneider, B. (2002) *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.

Bryk, A.S., Gomez, L.M., Grunow, A. and LeMahieu, P.G. (2015) *Learning to improve: How America's schools can get better at getting better*. Cambridge, MA: Harvard Education Press.

Carnegie Foundation for the Advancement of Teaching (2023) *Improvement science handbook*. Stanford, CA: Carnegie Foundation for the Advancement of Teaching.

Deci, E.L. and Ryan, R.M. (2000) 'The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour', *Psychological Inquiry*, 11(4), pp. 227–268.

Deming, W.E. (1994) *The new economics for industry, government, education*. 2nd ed. Cambridge, MA: MIT Press.

Education Endowment Foundation (EEF) (2024) *A school's guide to implementation: Guidance report*. London: Education Endowment Foundation.

Education Endowment Foundation (EEF) (2024) *EEF project database*. London: Education Endowment Foundation.

Education Policy Institute (2025) *Breaking down the gap: Understanding the 16–19 disadvantage attainment gap*. London: Education Policy Institute.

Fixsen, D.L., Naoom, S.F., Blase, K.A., Friedman, R.M. and Wallace, F. (2005) *Implementation research: A synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.

Fixsen, D.L., Blase, K.A. and Van Dyke, M. (2019) *Implementation practice and science*. Chapel Hill, NC: Active Implementation Research Network.

Fullan, M. (2016) *The new meaning of educational change*. 5th ed. New York: Teachers College Press.

Fullan, M. (2023). Why We Can't Escape the Status Quo in Education: 200 years of doing the same thing just won't cut it. *Education Week*.

Gates, B. (2018) *Forum on education in America: Prepared remarks by Bill Gates, co-chair and trustee*. Bill & Melinda Gates Foundation, 11 November.

Gatsby Foundation (2025) *Teacher Recruitment and Retention in 2025*. London: Gatsby Foundation.

Gawande, A. (2013) 'Slow ideas: Some innovations spread fast. Why do others take decades?', *The New Yorker*, 29 July.

Hattie, J. (2015): The Applicability of Visible Learning to Higher Education. *Scholarship of Teaching and Learning in Psychology*, 1 (1), 79-91

Huang, M. (2018) *Long-term impacts of Statway on student success*. Stanford, CA: Carnegie Foundation for the Advancement of Teaching.

Institute for Public Policy Research (IPPR) (2025) *Five years since schools went into lockdown: Attendance crisis at record levels*. London: IPPR.

Janis, I. (1971) *Groupthink*. Boston, MA: Houghton Mifflin.

Kahneman, D. and Klein, G. (2009) 'Conditions for intuitive expertise: A failure to disagree', *American Psychologist*, 64(6), pp. 515–526.

Kercsmar, C.M., Beck, A.F., Sauers, H., et al. (2017) 'Reducing childhood asthma readmissions: A systems-level improvement initiative', *Pediatrics*, 139(2), pp. 1–9.

Klein, G. (2007) 'Performing a project premortem', *Harvard Business Review*, 85(9), pp. 18–19.

Kotter, J.P. (2008) *A sense of urgency*. Boston, MA: Harvard Business Press.

Langley, G.J., Moen, R., Nolan, K.M., Nolan, T.W., Norman, C.L. and Provost, L.P. (2009) *The improvement guide: A practical approach to enhancing organisational performance*. 2nd ed. San Francisco, CA: Jossey-Bass.

Leithwood, K., Harris, A. and Hopkins, D. (2020) 'Seven strong claims about successful school leadership revisited', *School Leadership & Management*, 40(1), pp. 5–22.

Lewis, C. (2015) 'What is improvement science? Do we need it in education?', *Educational Researcher*, 44(1), pp. 54–61.

Mannion, J. (2025) *Making change stick: A practical guide to implementing school improvement*. London: Hachette/Hodder Education.

McCarthy, D. and Cohen, E. (2013) *Cincinnati Children's Hospital asthma improvement story*. Cincinnati, OH: Cincinnati Children's Hospital Medical Center.

NASUWT – The Teachers' Union (2025) *Behaviour in Schools 2025*. London: NASUWT.

National Academy for Educational Leadership (2024) *Learner effectiveness pilot: Interim report*. Cardiff: NAEL.

National Literacy Trust (2025) *Children and young people's reading in 2025*. London: National Literacy Trust.

NHS Digital (2024) *Mental Health of Children and Young People in England 2024*. Leeds: NHS Digital.

Nilsen, P. (2015) 'Making sense of implementation theories, models and frameworks', *Implementation Science*, 10, p. 53.

Parikh, K., Keller, L.A., Beck, A.F., et al. (2015) 'Pediatric asthma quality improvement: A decade of innovation', *Journal of Asthma*, 52(1), pp. 1–8.

Rose, J., Smith, M. and Gustafson, C. (2019) *Cincinnati Children's Hospital asthma improvement collaborative*. Cincinnati, OH: Cincinnati Children's Hospital Medical Center.

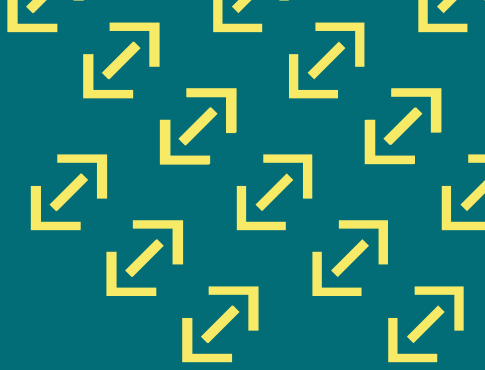
Senge, P. (2006) *The fifth discipline: The art and practice of the learning organisation*. New York: Doubleday.

Silva, E. and White, T. (2013) *Pathways to improvement: Using learning to improve community college student success*. Stanford, CA: Carnegie Foundation for the Advancement of Teaching.

Stecher, B.M., Holtzman, D.J., Garet, M.S., Hamilton, L.S., Engberg, J., Steiner, E.D., Robyn, A., Baird, M.D., Gutierrez, I.A., Peet, E.D. *et al.* (2018). *Improving Teaching Effectiveness: Final Report – The Intensive Partnerships for Effective Teaching Through 2015–2016.* Santa Monica, CA: RAND Corporation.

Thompson, M. & Wiliam, D. (2007) *Tight but loose: A conceptual framework for scaling up school reforms*. Paper presented at the Annual Meeting of the American Educational Research Association (AERA), Chicago, IL, 9–13 April.

Yamada, H. and Bryk, A.S. (2016) *Technical report for the Statway and Quantway pathways*. Stanford, CA: Carnegie Foundation for the Advancement of Teaching.



Head Office

Hachette Learning

Carmelite House

50 Victoria Embankment

London, EC4Y 0DZ