



AI Won't Improve Schools. Better Decisions Will.



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The recent Education Endowment Foundation (EEF) evaluation of Maths-Whizz, the AI-powered virtual maths tutor, reported an average of one month's additional progress in mathematics, rising to two months for pupils eligible for Free School Meals.

Those headlines deserve attention.

But another finding caught my attention even more.

During the trial, pupils used Maths-Whizz for an average of 32 minutes per week, below the programme's recommended 45–60 minutes.

TIME INVESTED

average minutes per week during the trial



32 min
actual average

45-60 min
recommended

PROGRESS GAINED

additional progress in maths reported by the EEF

+1 month

additional progress
for all pupils

+2 months

for pupils eligible for
Free School Meals

If those outcomes were achieved with less than the recommended level of implementation, what might be possible if schools were able to implement the programme as consistently as intended?

That question, more than the headline itself, is why I'm writing this article.

What interested me most wasn't simply that adaptive technology can improve outcomes. It was that the research reinforced something we've been learning at Plumcroft Primary for over five years.

“Technology doesn't improve schools. Better decisions do.”

And better decisions become much easier when teachers have better evidence.

Why should you listen to me?

One year's SATs results prove very little. Every school has stronger and weaker cohorts.

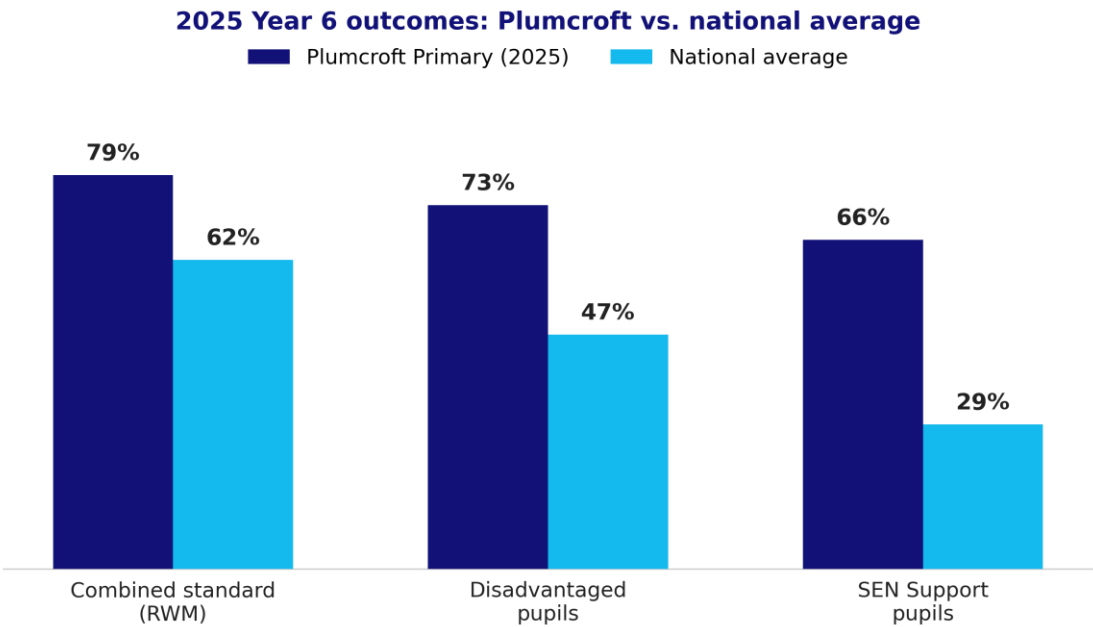
What has given me confidence is the trend.

Over the last four years, our Reading, Writing and Mathematics outcomes have remained consistently above national averages whilst continuing to improve.

In 2025, 79% of our Year 6 pupils achieved the expected standard in Reading, Writing and Mathematics combined, compared with 62% nationally.

More importantly, 73% of our disadvantaged pupils achieved the combined standard, compared with 47% nationally.

For pupils receiving SEN Support, 66% achieved the combined standard, compared with 29% nationally.



Plumcroft Primary 2025 Year 6 outcomes vs. national averages

These are not isolated results from one particularly able cohort. They build on consistently strong outcomes over recent years and, for me, point towards the impact of a system rather than a single year group.

I'm not suggesting that one piece of software produced those outcomes.

It didn't.

But I do believe our journey has taught us something worth sharing.

It started with a difficult leadership decision

Back in 2021 we fundamentally changed the way we thought about inclusion.

Traditionally, schools are designed around the needs of the 80% of children who make broadly expected progress, with additional funding and interventions supporting the 20% who require something more.

We decided to turn that thinking upside down.

Instead of designing our staffing, budget and curriculum around the 80%, we deliberately started with the 20%.

If we could genuinely meet the needs of the children requiring the greatest level of support, we believed the quality of education would improve for everyone else.

That simple shift became our philosophy of "Meeting Need at the Point of Need".

It also required some very difficult decisions.

For the last three years, none of our Key Stage 2 classes has had a general classroom teaching assistant.

Instead, we redirected significant funding into specialist SEND expertise, earlier identification of need, targeted intervention and, increasingly, technology that helps teachers make better-informed decisions.

Those decisions weren't easy.

Leadership rarely involves choosing between good and bad options.

More often, it means choosing between two difficult options and then implementing one of them with absolute consistency.

Looking at the current national focus on inclusion, it feels as though policy is beginning to move towards a journey we've already been travelling since 2021—not because the government asked us to, but because our children needed us to.

Counter-intuitively, we've discovered that by designing the school around the children with the greatest level of need, outcomes have improved not only for that 20%, but for the other 80% as well.

Then a Year 3 maths trial changed my thinking

Our journey with Maths-Whizz began over five years ago with a small Year 3 trial.

Like most teachers, we thought we knew exactly where our pupils' biggest mathematical weaknesses were. The data told us something different.

Mental calculation strategies across the four operations were significantly weaker than we had realised.

Accurate diagnostic evidence changed weeks of future teaching.

That was the moment my thinking began to change.

“The real value wasn't just personalised tutoring. It was personalised diagnosis.”

The initial trial was successful enough for us to extend it across Lower Key Stage 2 before gradually expanding further. In 2025, we made the decision to embed Maths-Whizz across every Key Stage 2 class, from Year 3 to Year 6. Today, around 600 pupils use the programme every week as part of their normal mathematics learning. That decision wasn't driven by technology. It reflected the acceleration in outcomes in KS2 and our own recognition of the quality of the diagnostic information it provides to teachers and the professional conversations it stimulates about learning.

Better evidence creates better teaching

As school leaders, we ask teachers to make hundreds of professional decisions every week.

What should I teach next?

Which pupils have genuinely secured the learning?

Who needs further explanation?

Who simply needs more practice?

No teacher—however experienced—can realistically retain, analyse and act upon the enormous amount of information generated by thirty children every day.

Artificial Intelligence can.

Although the more I've worked with it, the more I've found myself wondering whether Augmented Intelligence is a more accurate description.

Its purpose isn't to replace teachers.

It's to strengthen their professional judgement.

“Perhaps its greatest potential is not as an answer machine, but as a disciplined thought partner that helps teachers think more clearly and make better decisions.”

Teachers still build relationships.

Teachers still inspire curiosity.

Teachers still notice the child who arrives worried because something happened at home.

Teachers still make the countless in-the-moment decisions that no technology ever will.

AI simply helps them begin and continue with better evidence.

I think we've been thinking too small

The EEF evaluation validated something else I've been wondering about.

Perhaps we've been using adaptive learning systems too narrowly.

Too often, we see programmes like Maths-Whizz simply as interventions where children complete forty or sixty minutes each week of personalised learning.

That remains valuable.

However; timetabling is a 'challenge' - perhaps this is the why the trial schools only averaged 32 minutes?

But I suspect the bigger opportunity lies elsewhere.

Imagine every fortnight the diagnostic information generated by systems like Maths-Whizz being brought together intelligently.

Not to create another spreadsheet.

Not to generate another pupil progress meeting.

But to answer five practical questions for every teacher.

What have my pupils genuinely learnt?

What misconceptions matter most?

Which children now have similar learning needs?

What can I stop teaching because they've secured it?

What should I teach next?

Now imagine that same system preparing a carefully sequenced starting point for the next two weeks of learning, supported by high-quality resources drawn from trusted educational organisations.

Not a script.

Not something to follow blindly.

A well-informed starting point.

Experienced teachers would adapt it.

Early Career Teachers would gain confidence from it.

Every teacher would spend less time searching and more time teaching.



Evolution, not revolution

I'm not advocating classrooms full of children sitting behind screens.

I'm not suggesting AI will replace teachers.

And I'm certainly not arguing that technology, on its own, improves education. I simply believe teachers deserve and need better information.

Because better information leads to better decisions.

Better decisions lead to better teaching.

And better teaching leads to better outcomes for all pupils.

The real opportunity

Maths-Whizz has been an important part of that journey for over five years.

It has never been a silver bullet, nor have we treated it as one.

It has become one component within a much wider strategy built around evidence, inclusion and increasingly precise teaching.

The recent EEF evaluation provides welcome independent validation that adaptive tutoring can improve outcomes, particularly for disadvantaged pupils.

Our own experience suggests its greatest long-term contribution may be even broader: helping teachers make better-informed decisions about what to teach next in their whole class lessons.

Looking back, I don't think the biggest lesson from our Maths-Whizz journey has been about mathematics.

It's been about leadership.

Schools will always face difficult financial choices.

Children's needs will continue to become more complex.

“Teachers will continue to be asked to do more than ever before. The answer cannot simply be to expect them to work even harder. It has to be helping them work with greater precision.”

Not replacing great teaching.

But helping great teachers make even better decisions.

Time will tell whether this proves to be the right direction.

Our experience so far suggests that it is.