THE PRODUCTIVITY INSTITUTE

Public sector impact studies

Education:
One-to-one devices for inclusive and efficient teaching

The problem

Primary schools are under increasing pressure to serve a diverse student population while managing high expectations and limited budgets. Teachers face heavy workloads driven by manual tasks, such as preparing paper materials, grading by hand, and generating paperwork for compliance. These administrative duties absorb time that could be spent on lesson planning, feedback, and direct student support.

At the same time, classrooms now have higher numbers of students with special educational needs and those from disadvantaged backgrounds. These students often require more personalised support than a standard lecture-style classroom can offer.

Although digital tools offer a solution to both the workload and accessibility issues, many school administrators remain cautious. They are often hesitant to adopt new technology due to concerns about high costs, potential disruption to the school day, and the fear of being seen as experimenting with children's education.

This public sector impact study is based on a talk at Productivity Pitches, a series of events hosted by the Institute for Government and The Productivity Institute, which aims to share and support ways to improve public sector performance levels. The talk is available to watch on the Institute for Government's website.

The innovation

Belgrave St. Bartholomew's Academy addressed this by giving every single pupil and teacher their own tablet, and used the technology to overhaul daily operations:

- *Faster allocation of learning materials:* When a lesson begins, pupils receive resources directly on their devices through a platform called Showbie. Teachers can assign tasks digitally, provide voice-note feedback, and use multimedia tools to support understanding.
- *Cutting out wasted time:* The school looked closely at all its daily routines and got rid of any that didn't actually help children learn. For example, it stopped the daily ritual of pupils cutting out and sticking worksheets into their books, a practice that was found to take around 65 hours per child each year.
- *Making learning more accessible:* The technology allowed for more creative and flexible lessons. Pupils could show what they had learned in different ways such as by making videos, recording audio, or using interactive tools. This removed writing as a barrier for those with special educational needs or motor control difficulties.
- *Managing the pitfalls:* The programme also included safeguards, such as blue-light filters and lowered screen contrast, and did not replace handwriting entirely. For instance, pupils still produce written work, particularly for final pieces.

The impact

The model has demonstrated measurable improvements in workload, outcomes, and finance:

- *Reductions in staff workload:* Teachers' evening marking time fell from two hours to 30 minutes, and the number of staff reporting working at weekends dropped from 60% to 10%. In total, teachers reported gaining 7.5 hours a week.
- *Inclusion and safety:* Pupils with special educational needs gained independence, and engagement improved for those at risk of exclusion. A digital "Speak Out Line" also facilitated early intervention in significant safeguarding cases.
- *Strong outcomes:* Academic standards remained high, with 82% of Key Stage 2 pupils reaching the expected standard, well above the national average.
- *Financial gain:* While the initial investment was £70,000, the school saved £175,000 in the first year alone by cutting printing and consumables. These savings were reinvested to hire additional support staff.

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Takeaways

The success of the Belgrave Academy project highlights three key lessons for public sector productivity:

1. First, technology works best when it is paired with a rigorous challenge to old habits. The school's success came from asking a simple question: does this task help children learn ("improve"), or does it just generate evidence for outsiders ("prove")? By having the courage to cut out the proving tasks, leaders cleared the way for staff to use the new technology productively.
2. Second, strategic leadership requires identifying a clear purpose that addresses the daily pressures staff face. This project succeeded because it offered a practical solution to teacher burnout and student exclusion. The core vision focused on helping children flourish while giving teachers over seven hours of their time back each week. Presenting the project as a way to reclaim time for direct student support turned the initiative into a shared mission. This approach ensured that the investment in technology served a clear and urgent educational goal.
3. Third, managing the transition to new technology requires a culture where staff feel safe to take risks and learn from mistakes. Leadership encouraged a culture where setbacks were treated as a normal part of the learning process instead of expecting immediate perfection. One specific method involved beginning staff meetings with a 'share a mare' session, where teachers had a regular opportunity to talk about technical glitches or classroom setbacks. This transparency helped to normalise the difficulties of the change and turned individual frustrations into shared learning experiences. By highlighting these challenges, the school reduced the pressure to be perfect and supported staff members who were less confident with technology to stay involved in the process. This approach shows how acknowledging the difficult aspects of implementation can help a team move past old habits and toward a more productive and pedagogically successful model.

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