

Improve maths teaching, learning and leadership to accelerate progress and raise attainment in KS2 and KS3 for all learners, particularly SEND pupils and those who are disadvantaged

Overview

Pupils in the identified regional group of schools for this project (that sit outside the maths hub of activity) were making insufficient progress in maths. The difference for disadvantaged students and those with SEND to their national non-disadvantaged / non-SEND counterparts was too great. This project aimed to:

- Enable teachers to focus on the 5 key areas identified as the inter-locking keystones in order to secure outstanding maths pedagogy;
- Support teachers with meta-cognition and self-regulation methods in order to foster active 'thinking' learning;
- Promote a 'keep up not catch-up' approach with same day interventions linked to the 5 key areas;
- Sustain improved teaching by development of maths leaders through incremental coaching and by increasing the impact of governance on teaching, learning, assessment and pupil outcomes.

Good practice to share with others interested in running school improvement projects to ensure projects deliver the intended outcome.

- Front loading of CPD. This structure was effective as it ensures that class teachers received subject knowledge and pedagogical enhancements which they could subsequently implement during the project, with the intensive support of the SLE. By providing CPD training towards the start of the project, teachers had the vast majority of the project to refine their practice under the guidance of the SLE. The success of front loading of CPD is evidenced in an NQT comment in a questionnaire: "having support of SLE to bounce ideas for question variation [an idea discussed in CPD training]". The impact of CPD on teachers' subject knowledge was evidenced in one of the project schools' recent (January 2019) Ofsted report, which stated that, "leaders have put in place an intensive training programme for staff. This has been particularly successful in improving teachers' and teaching assistants' subject knowledge in mathematics."
- Structure of the project. Focusing initially on class teachers, before moving to work with subject leaders as the project became embedded, allowed SLEs to come to a detailed understanding of each school's context, priorities and vision, meaning subject leader support was tailored precisely to each school. Furthermore, this timing gave subject leaders time to see the implementation of training received at the start of the project before they worked extensively with the SLE. The structure of the project reflects Recommendation 1 on the EEF

Implementation Guidance – ‘plan and execute in stages’. One of the Testimonials submitted with this Final Monitoring Report illustrates the strength of the project's structure: "I feel the intrinsic elements of the scheme were taken on-board fairly quickly in the project. The support and encouragement of the SLEs we have had has enabled us to question and ask for examples and see evidence where we didn't understand or needed adjustment to our circumstances". A project school received a one-day Ofsted inspection in May 2019, and the report of this inspection commented very positively about improvements in Maths teaching. The report states that, "since the last inspection....outcomes in mathematics have been very weak compared to the national average. In 2018, however, progress in mathematics was very strong". The "systematic change" in maths teaching, "has led to significant improvements, which have been embedded and maintained across the school."

- Record of Visits forms (used internally to keep track of SLEs' work) have been invaluable to enable SLEs to monitor their work, and to ensure fair and targeted coverage of support across year groups within KS2 or 3 within their project schools. These forms have also provided useful sources of evidence for writing reports to governors regarding the progress of the project, and in sharing good practice among SLEs (the Records have been saved in a Googledrive folder to which all SLEs have had access, thereby facilitating the sharing of best practice across the SLE team).
- Communication Effective use has been made of Googledrive in order to communicate between SLEs, project manager and NLEs involved in the project. There has been efficient use of online and electronic communication, "Activities have been well communicated by email" (subject leader questionnaire comment).

What the project may do differently in the future

- Governor engagement has been varied through the project. Generally there was strong initial interest, with reasonable attendance at governor training sessions which took place towards the beginning of the project. Governor support for the project would have been more sustained if SLEs had engaged with governors more regularly during the project, rather than at the beginning and then towards its close (with the writing of governor reports and a governor questionnaire).
- Risks to implementation were anticipated at the start of the project and planned for with schools. During the project, schools needed some more SLE input and support on implementing risk mitigation plans in the few cases where implementation proved to be necessary.
- The documentation at the start of the project proved cumbersome, with one questionnaire completed by a subject leader commenting that "a

more user friendly action plan” would have been beneficial.

Sustainability measures taken by projects to ensure improvement are sustained beyond the funding period.

- At the start of 2018-19 year, CPD was delivered to all NQTs and teachers new to the schools benefitting from the project; this CPD had been delivered at the beginning of the project to teachers working in the schools at that point. This second round of CPD delivery ensured all teachers had received the same CPD input. As the project has progressed, KPIs during the 2019-19 school year have focussed SLEs' work in schools on working extensively with the Maths subject leader to embed the progress made in maths pedagogy during the project. In particular, SLEs have developed subject leaders' understanding of monitoring to ensure effective use of the Maths Mastery 'big ideas,' many of which are reflected in the EEF's recommendations contained in Improving maths in Key Stages 2 and 3 Guidance Report. This change in emphasis, necessitated by the KPIs and metrics, aligns with Recommendation 6 of the EEF Implementation Guidance Report, which states that when implementation is judged as successful, focus should alter to 'consolidating the new programme....and enhancing its skilful use amongst relevant staff'. SLEs have, working in collaboration with Maths subject leaders, developed strategies and tools for subject and school leaders to deploy following the end of the project.
- Governor engagement was identified at the planning stage of the project as being critical to sustaining impact; governor training was delivered at the start of the project, and SLEs have written two governor reports to update governors during the project, to refresh governors on the project, its impact, and its long-term gains. Governors have also completed a questionnaire towards the end of the project to gauge its impact and their understanding of it. This has been reflected in recent comments in completed subject leader questionnaire “[SLE has] met with governors to ensure fully up to date.”
- Recently, the project has engaged with the NCETM to consider ways in which the Maths Hubs network can engage with the schools involved with the project in order to sustain and support the gains made in Math teaching and learning into the future; SLEs have been supporting schools in engaging in Maths Hubs programmes for 2019/20, including the Teaching for Mastery and Mastery Readiness programmes.