

TLIF Evaluation: Edison Learning's National Association of Head Teachers Aspire project

Final Report

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Key findings summary

- EdisonLearning's NAHT Aspire project (originally developed with the National Association of Headteachers (NAHT)) delivered a one-year, whole-school improvement programme to 96 primary schools across England. Achievement Advisers led six out-of-school Network Days with senior and middle leaders, followed by six in-school Development Days involving teachers in participating schools.
- All of NAHT Aspire's KPIs regarding recruitment and retention to the project have been met. All 96 target schools were recruited from priority areas and completed the planned one-year programme. Recruitment was aided by the NAHT union badging and reputation, the track record of NAHT Aspire's existing programme delivery, and previously established contacts, networks and communication channels.
- All leaders interviewed were highly positive about the quality of the Achievement Adviser support and all other components of the programme.
- Fast Learning a key strategy to develop pupils' fluency and recall in core maths and literacy skills – was introduced to differing extents across schools. It was reported to have positive perceived impacts on pupil learning behaviours and outcomes in all the case-study schools. Pupils and teachers found it engaging and motivating as pupils could see immediate progress and improvement in their scores.
- Achievement Teams were implemented widely across case-study schools and involved staff adhering to a highly structured, data-driven meeting format, focused on planning tailored interventions for specific pupils. Some used Venn diagram tools – a visual representation of pupil outcome data that identified those most requiring additional help. Evidence from leaders strongly indicated that Achievement Teams improved teachers' clarity and confidence in collaboratively finding pupil-based solutions and enhanced teacher peersupport. In some schools, these replaced staff meetings and were reported to be a more effective mechanism for sustained classroom improvement.

Key findings summary

- Lesson visits were a key element of the Quality Framework for Teaching and Learning (QFTL) and were identified as a more effective and supportive alternative to lesson observations and judgements. Lesson visits involved developmentally focused learning conversations, focused on learner behaviours rather than teacher practice and sharing good practice. Leaders and teachers widely reported that this intervention built teachers' self-reflective capacity and confidence, which resulted in notable improvements in practice.
- Coaching was introduced by Achievement Advisers as part of the Development Days. Senior and middle leaders found this moderately helpful on the day, but findings suggest that formal coaching pairs 'dropped off' after that. Coaching was a more straightforward and effective intervention when conducted more informally as part of learning conversations and lesson visits, which were embedded into practice and better met schools' needs.
- Schools reported continuing to implement, adapt and embed the interventions after the end of the programme, depending on which aspects were working most effectively for them – indicating ongoing sustainability. This was based on perceived impacts and improvements for pupils, teachers, leaders and the school more generally. Leaders felt the project had been effective at providing longer-term strategic focus and direction. Emerging data on improved Ofsted ratings for some participating schools adds to the evidence that, overall, NAHT Aspire did achieve the outcomes identified in the project's logic model and has led to whole-school improvements in priority schools. Key to this is the mutually reinforcing elements of the programme that build trust and collaboration, leadership capacity, teacher confidence and learning outcomes for pupils across all interventions and strategies.
- Analyses of data from the School Workforce Census suggests the project may have improved retention for participants but had no statistically significant impact on progression. This finding is supported by qualitative evidence which suggests that participants were more focused on the outcomes of the project for pupils and the school, than their career progression. However, unobserved systematic differences between participant and non-participant teachers may have over-inflated estimates of the effect of the project on retention. At the school level, no statistically significant impact on retention or progression was observed.

Glossary of Terms

Achievement Adviser (AA) – EdisonLearning school improvement adviser who worked with schools to support their improvement through the implementation of EdisonLearning school improvement strategies (often an ex Headteacher).

Achievement Teams/ Achievement Team meetings (ATM) – regular protocoldriven meetings of teachers and TAs, informed by learner data involving sharing knowledge and practices, committing to action and reporting on impact.

Coaching model/coaching pairs – based on the introduction and development of the G(oal), R(eality), O(ptions), W(hat) model of coaching.

Development Days - an in-school day where the Achievement Adviser worked with and alongside school leaders and school staff on the implementation of school improvement strategies.

Fast Learning – foundational learning strategies in transcription, reading and maths designed to ensure automaticity in the retrieval and application of essential knowledge.

Foundational Learning – derived from research on modes of learning related to types of learning outcomes. Approach designed to ensure automaticity in the retrieval and application of essential knowledge. One aspect of this is Fast Learning.

Learning conversations – professional dialogues with teachers about planned learning and actual learning outcomes in lessons.

Lesson visits - focused observations of learning and teaching that are bookended by learning conversations.

NAHT – National Association of Headteachers – co-constructed/led/funded the development of the original 3-year NAHT Aspire programme with EdisonLearning.

NAHT Aspire – the 3-year partner school programme run by EdisonLearning since 2013. A one-year delivery model was developed for the TLIF programme.

Network Days - professional development days where school leaders from a group of schools came together to be introduced to school improvement strategies, to share current practices and progress with the implementation of new school improvement strategies and to solution plan where barriers to progress were being experienced.

Priority areas - category 5 or 6 Achieving Excellence Areas (AEAs) Local Authority districts, including the 12 Government Opportunity Areas - areas identified as having weakest performance and least capacity to improve.

Priority schools – schools with an Ofsted judgement of 3 or 4 (Inadequate or Requires Improvement (RI).

Quality Framework for Leadership (QFL) – a systematic disaggregation of effective leadership organised in four elements with themes, descriptors and behaviours that capture good and outstanding leadership.

Quality Framework for Learning and Teaching (QFLT) – a systematic disaggregation of effective teaching captured in six elements, 37 themes, with descriptors and behaviours associated with good and outstanding learning and teaching.

Teaching and Leadership Innovation Fund (TLIF) — DfE programme (2017-2020) aimed at improving pupil outcomes and support pupil social mobility by improving teaching and leadership in priority areas and schools through outcome-focused, evidence-based and innovative professional development provision.

Venn diagrams – a simple but informative data report used to inform targeted formative action at whole school, subject, phase and classroom level. Part of the data-informed decision-making (Putting data to work) strand of the NAHT Aspire programme.

1 About EdisonLearning and the evaluation

EdisonLearning's NAHT Aspire project ran from November 2017 to March 2020. It aimed to deliver a one-year, whole-school improvement programme to raise the skills, knowledge and competencies of primary school leaders and teachers in socially-challenged areas. The structured project included two days out of school per term, where two senior leaders and two middle leaders from each school came together with others in the network to share experiences and plan for their school, depending on their priorities. Typically, networks were geographically-based groups of four to eight schools brought together for the programme, led and supported by two EdisonLearning Achievement Advisers. These were followed by Development Days with Achievement Advisers visiting each school, coaching leaders and supporting the implementation of strategies and interventions across the school with the wider staff. Key aspects of the Network and Development Day inputs included Fast Learning (an approach to rapidly develop fluency and accuracy in core maths and literacy skills), Achievement Teams (solution-focused meetings identifying and addressing specific learning barriers), coaching, lesson visits and NAHT Aspire downloadable web resources.

1.1 Theory of Change

EdisonLearning's NAHT Aspire project had a number of intended outcomes and impacts. These are outlined in the project logic model in Appendix A, which was created by the evaluation team and reviewed by DfE. The logic model was based on the theory of change (ToC) submitted by the project as part of its bid; our understanding of the project's underlying rationale, activities, outputs and anticipated outcomes; and subsequent conversations with the project team.

Intended outcomes included leaders developing leadership competencies, confidence in their skills and distributing leadership more widely. The impacts that were expected included improvements in teacher retention and progression and pupil attainment.

The methods (project activities/outputs) by which EdisonLearning expected to achieve the intended outcomes and impacts are also outlined in Appendix A. These included:

 delivery of 144 Network Days, 576 Development Days, Achievement Adviser support, coaching and Fast Learning, underpinned with NAHT Aspire resources.

- recruiting two senior leaders and two middle leaders from 96 primary¹ schools (192 senior leaders and 192 middle leaders) onto Network day training – two days out-of-school training for three terms.
- reaching a further 830 class teachers across the 96 schools on follow-up Development Days in schools.
- 100% of schools are recruited from priority areas (category 5 and 6 local authority areas, including Opportunity Areas - areas identified as having weakest performance and least capacity to improve). A minimum of 70% of participants to come from priority schools (schools rated as Requiring Improvement (RI) or Inadequate by Ofsted).

The project ToC assumed that the project activities would lead to the intended impacts by providing opportunities for learning and practising new techniques and skills, setting up in-school Achievement Teams, engaging in peer coaching and receiving external support and resources. In turn, this would lead, via outcomes for leaders, teachers, the school and the wider area as shown in the logic model, to the intended outcomes.

EdisonLearning's NAHT Aspire model is underpinned by research that suggests that effective training for developing distributed leadership needs to be multifaceted, involving modelling, practising new skills and peer-coaching (Bryk, 2010; Joyce & Showers, 2002). The programme has a proven track record in providing effective whole-school improvement to schools designated by Ofsted as Requiring Improvement (RI), as evidenced by Derby University's evaluation of their three-year pilot² (on which this one-year TLIF model is based). This evaluation suggested that the model had resulted in a transformative effect on schools by building a collegial working environment, leadership capacity, confidence in teachers, and learning outcomes for pupils (Neary *et al.*, 2015).

1.2 Contextual factors

The NAHT Aspire project is one of ten DfE-funded TLIF projects. The DfE wished to test out how effectively a variety of different CPD approaches could meet project-specific and fund-level outcomes; therefore each of the ten projects were commissioned to be intentionally different in design, scale, scope and delivery method. At fund level, the evaluation seeks to compare and contrast the relative effectiveness of these projects in meeting their stated aims and objectives – taking into account a range of factors related to their differences.

¹ In a small number of cases, middle schools, including some deemed secondary that included Years 5 & 6 were also recruited as eligible schools for the programme.

²The three-year programme has five strands, including Learning Environment and Student and Family Supports, which are not covered in the one-year TLIF version. The implementation and impacts of these additional strands were considered more suitable for a longer-term project.

These include:

- **impact focus and target group** (whether impact was intended to be at whole-school, individual-teacher-level or both; and whether the project targeted leaders, teachers or both) the NAHT Aspire project had a whole-school focus and targeted senior leaders, middle leaders and teachers.
- **phase supported** (whether primary, secondary, or both phases) the NAHT Aspire project supported primary schools (including some middle schools deemed secondary).
- per-participant cost (calculated by comparing the overall cost specified in the project's bid against the number of participants that the project was contracted to recruit³). Relative to the other TLIF projects, the NAHT Aspire project was low cost.
- intensity of the delivery model (categorised by creating a combined score incorporating: duration of provision offered (in months), hours of provision offered (per participant); and proportion of school staff that the project aimed to engage⁴). Relative to the other TLIF projects, the NAHT Aspire project had a moderate delivery model.
- **range of delivery modes** (categorised into two groups: a wide range (five to six modes), and a moderate range (three modes⁵). The NAHT Aspire project had a wide range of delivery modes relative to other TLIF projects.

In the fund-level report, we take the NAHT Aspire project's contextual factors into account as we compare its progress in achieving outcomes with the progress made by the other TLIF projects.

1.3 Evaluation methodology

The aim of the evaluation was to undertake a process and impact evaluation to explore indicators of effectiveness and to measure impacts (teacher retention and progression) alongside outcomes; such as improvement in teaching quality and increased confidence(see Chapter 4, Table 1 for full details). The objective was to draw out learning and best practice, test out the project's theory of change, and identify implications for the fund-level assessment, as well as educational policy and practice more broadly. Our original evaluation design also included an impact evaluation to assess the impacts of the project on pupil attainment. However, due to partial school closures as a result of the Covid-19 pandemic, and the cancellation of

involvement, but it provides an indication of the nature of delivery. Our three resulting categories were: 'intensive', 'moderate' and 'light touch'.

 ³ High-cost projects had a relatively high per participant budget, medium-cost projects had a relatively medium per participant budget and low-cost projects had a relatively low per participant budget.
 ⁴ We do not have dosage data – so this assessment is based on intention rather than actual

⁵ No projects had four modes of delivery and no projects had fewer than three.

Key Stage 2 assessments and GCSE examinations for the 2020 cohort, DfE decided to remove this aspect of the evaluation. Therefore there is no pupil impact analysis aspect to the evaluation. The evaluation does not contain a quantitative measure of project outcomes, gathered via baseline and endpoint surveys.

This final evaluation report draws on secondary data from the School Workforce Census (SWC⁶), and qualitative data. It provides a measure of the project's success in achieving the TLIF programme's impacts (SWC data), and both the TLIF programme and project-specific outcomes (qualitative data). SWC findings are supported by rich qualitative data which aids understanding of the recruitment, delivery and implementation factors that influenced achievement of the TLIF programme and project-specific impacts and outcomes. The report explores the links between inputs, outcomes and impacts, analysing the appropriateness of the project's ToC in achieving desired results. The data sources underpinning this report are:

- a comparison of secondary data from the SWC for Edison participants, and for a matched group of non-Edison participants⁷. Edison participants were identified via project MI data, which was collected by DfE and shared with the evaluators.
- Telephone interviews with project managers, achievement advisors, senior leaders, middle leaders and teachers as detailed in Table 1:

Interviews	2018	2019	2020	Total
Project Managers	1	1	1	3
Achievement Advisers	-	2	2	4
Senior leaders	-	6	4	10
Middle leaders	-	4	4	8
Teachers	-	-	4	4
Total interviews	1	13	15	29
Number of case-study schools	-	5	4	9

Table 1: Evaluation data sources

⁶ This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

⁷ Non-Edison participants were defined as any teacher who was not enrolled on the Edison project, or any other TLIF intervention

Telephone interviews lasted between 45 and 90 minutes, depending on the interviewee's role and the amount of detail they provided. The findings in this report are based on a top-level data analysis. Interview transcripts were uploaded into the qualitative data analysis software package NVivo and coded using an analysis framework based on the logic model headings (see Appendix A). Detailed interrogation of patterns in the data was undertaken and is presented here.

The nine case-study schools were selected from a longlist supplied by EdisonLearning of cohort 1 and 2 schools that had completed or were near the end of their one-year programme at the time of interviewing in spring 2019 and 2020 respectively. Schools were sampled to cover a range of geographical areas (networks) and other characteristics, and contacted to take part, first by email then follow up phone calls. Key information and characteristics used to inform the selection process included network, participant role, school type, school size, Ofsted rating and progress scores (more information on sampling is provided in Appendix B).

For cohort 1, the aim was to interview a participating senior and middle leader in each of five case-study schools, and for each school to be in a different network. However, the process of gaining consent and arranging telephone interviews from the sample longlist of schools took longer than anticipated. In some cases, headteachers declined on behalf of the school, citing time pressures. In other cases, it was not possible to secure interviews with both a senior leader and a middle leader, so replacement schools in the networks were contacted. Due to difficulties securing the intended balance of interviews, the achieved sample included six senior leaders and four middle leaders (a second senior leader in one school replaced a middle leader interview in another school that could not be arranged) across the five case-study schools. This meant there were slightly fewer middle leader perspectives included in the analysis than planned.

For cohort 2, the sampling was adjusted to include some teacher perspectives, as they, alongside middle leaders, were involved in the Development Day activities led by Achievement Advisers. Understanding their experiences of the programme was seen as an important indicator of the overall impact of the Edison Aspire project. Four case-study schools were selected, one from each of the four different networks in cohort 2. In each of these four schools, one senior leader, one middle leader and one class teacher were interviewed. Due to resource constraints, our evaluation design did not provide scope for inclusion of the perspectives of pupils.

Further details on the approach to qualitative sampling can be found in Appendix B.

Appendix D describes the methods used for matching MI data to SWC data, and for constructing a comparison group. Appendix E provides the results of the impact analysis. In summary, the steps were as follows:

- 1. The MI data was matched to the SWC using Teacher Reference Numbers (TRNs), names and dates of birth. This matched 97 per cent of NAHT Aspire participants as recorded in the MI data with at least one record in the SWC.
- 2. NAHT Aspire participants were matched with non-participants using propensity score matching. Matching for the full sample used teacher and school characteristics (age, gender, years of experience, Ofsted rating, etc. see Appendix D for the full list) observed in the baseline year, where baseline year for NAHT Aspire participants was defined as the year the teacher was recruited to the project.
- 3. The retention rates in state-sector teaching among those in the treatment and matched comparison groups were compared using a logistic regression model, one, two and three years after baseline and controlling for the variables used for matching. The same process was followed to estimate the impact on retention within the same school/local authority (LA)/challenging schools⁸.
- 4. Differences between the groups in progression rates (to middle/senior leadership) within the profession and within the same school/LA/challenging schools were estimated using a similar model as in step 3.
- 5. Similar analysis was then performed at the school level. Project participating schools were matched with non-participating schools using propensity score matching. Matching for the full sample occurred on the basis of school characteristics (school phase, Ofsted rating, etc. see Appendix D for the full list) observed in the baseline year, where baseline year was defined as the academic year that recruitment to the programme started.
- 6. The retention rates in state-sector teaching among teaching staff in the treatment and matched comparison schools were compared using a logistic regression model, one, two and three years after baseline and controlling for the variables used for matching. The same process was followed to estimate the impact on retention in the same school, retention in the same LA, retention in a challenging school, progression within the profession, progression in the same school, progression in the same LA and progression in a challenging school.

⁸ 'Challenging' schools were defined as schools rated by Ofsted as 'requires improvement' or 'inadequate'. A teacher was defined as remaining in a challenging school if they either stayed within the school they were in at baseline or moved to another school which was rated 'requires improvement' or 'inadequate'.

1.4 Focus of this report

The report focuses specifically on:

- Section 2 Recruitment and retention (whether the project met its targets for school and individual-level recruitment, and the factors that supported this).
- Section 3 Delivery and implementation (whether this progressed according to plan; what worked well and not so well, and what lessons can be learned for future CPD offers).
- Section 4 Perceived outcomes and impacts of the provision (the extent to which the project met, or had the potential to meet, the TLIF programme's outcomes and impacts, and their own bespoke project outcomes).
- Section 5 Sustainability (discussion of the potential for sustainability of new ways of working, new learning and outcomes in schools, which have come about through involvement with the project).
- Section 6 Evaluation of the EdisonLearning project Theory of Change
- Section 7 Summary and indicative implications for policy and CPD development

2 Recruitment and retention

2.1 Progress towards recruitment targets

Annual management information (MI) data for 2020 supplied by DfE's analysis team can be found at Appendix C. One of NAHT Aspire's key performance indicators (KPIs) was to recruit 96 primary schools to the project, with participants across all levels from classroom teacher to senior leader. The MI data shows that EdisonLearning met all of its KPI targets for recruitment. All 96 schools were located in Achieving Excellence Areas 5 or 6 (AEAs) – in line with the KPI target of 100 per cent of schools to be recruited from priority areas. Twenty-two per cent of the schools were located in Opportunity Areas (OAs). Of all the schools recruited by Edison, 82 per cent were rated Requires Improvement (Grade 3) or Inadequate (Grade 4) at their latest Ofsted inspection prior to starting the programme. Analysis of the following additional annual MI data can be found in Appendix C:

- distribution of participating schools across Regional School Commissioner (RSC) region
- school type
- school phase
- attainment at Key Stage 2
- proportion of participants that worked at schools with over 30 per cent of pupils eligible for free school meals (FSM)
- participant characteristics including role, school phase and main subject

2.2 Recruitment methods

The EdisonLearning project manager was responsible for TLIF recruitment and reported initially using their existing networks and links in targeted areas to explore potential clusters of schools. Achievement Advisers were key to this and suggested local contacts and eligible schools. The project manager also developed new regional contacts and additional liaison with Local Authorities (LAs) in priority areas in order to extend their geographical coverage and meet the recruitment targets.

The NAHT Aspire project was based on a pre-existing three-year programme developed in a partnership between the National Association of Headteachers (NAHT) and Edison Learning and delivered by EdisonLearning. The TLIF-funded one-year programme was also effectively promoted jointly through both organisations' well-established national and regional networks, and communication channels, which were already in place for their three-year programme. This included personal letters and follow-up telephone calls by the EdisonLearning team, which

were all identified by the project manager as effective approaches. In addition to targeted marketing campaigns, schools could also apply to join the programme through an open process promoted on the EdisonLearning TLIF website and via social media.

Interest, enquiries, and uptake of the programme were particularly strong in priority areas⁹, with a good spread of networks achieved across the country, even though schools in these areas described having a *'plethora of offers*'. The project manager explained that their approach was to create viable networks across the country where any eligible school could apply to join the programme:

There were a lot of schools who wanted to join the programme and obviously what we had to do in the first few months was corral them into certain areas. But we obviously strategically targeted certain areas geographically to make that relatively easy for us. - *Project Manager*

Places were available on a 'first come first served' basis and there were no other selection criteria. The ease with which the KPI recruitment targets were met was also attributed to the trusted NAHT union badging and the reputation of the existing NAHT Aspire programme.

A small number of requests were received from schools in areas where they were the only applicant. These schools were placed on a waiting list in case of withdrawals, and other eligible schools in the area were contacted to try and form a viable network. In addition, these schools were encouraged to talk to other eligible schools in their area to support the efforts to develop a network. If this approach was not successful, the school was offered a place in the nearest available network, in some cases in a different local authority, if they were willing to travel. The project manager stated there were no additional barriers to rural or small schools applying, with a number of networks including active participants from these types of schools. The recruitment campaigns were also tapered to reduce demand as places filled.

Over both years of the programme, three schools dropped out at an early stage. In two cases, this was due to LA or multi-academy trust (MAT) intervention and a refocusing of school priorities. One school received a Good Ofsted judgement shortly after joining, so withdrew. Replacement schools were quickly recruited from the reserve list to make up numbers and were subsequently placed in another network starting at a later date so that overall target numbers were easily met.

⁹ Priority areas are category 5 or 6 Achieving Excellence Areas (AEAs) Local Authority districts, including the 12 Government Opportunity Areas - areas identified as having weakest performance and least capacity to improve.

According to information received from the project manager, retention targets were on track from an early stage, with 100 per cent of cohort 1 and 2 schools having completed the programme – many well ahead of their milestone targets in March 2019 and 2020 (see Appendix C). Drop-outs over both cohorts were minimal and quickly replaced - surprisingly so, for one Achievement Adviser, given the target schools' challenges:

> It's been incredible how schools that have been under pressure have actually stayed the course ... [They] still doggedly hang on, because I think they quite like the critical friend approach – someone who will go 'yeah we understand, it's not very good, but we understand and actually we're not going to beat you around the head about it, we're going to think about what you can do about it'. That's what helped to keep a lot of those schools on board. - *Achievement Adviser*

2.3 What enables and hinders effective recruitment?

What enables effective recruitment and retention?

As a result of their existing programme experience and reputation, contacts, direct and established communication processes, and targeted word of mouth promotion, demand for the programme was greater than project delivery capacity in some areas and continued to be high over the course of the two years, as the project manager reported:

> There wasn't anything that caught us out. We planned really well, but that's all come from experience, it's not from hindsight looking back, there's a lot of foresight we put into the programme, which stopped us having problems... because we've been doing it for the last five years. - *Project Manager*

The perceived supportive approach and ethos of the project was also key to recruitment and retention. Several participants emphasised the importance of *'an opportunity to work with an outside agency with a good reputation'*, to guide them through what had been a challenging period of Ofsted inspections, staff changes and competing priorities for improvement.

School leaders were keen to sign up to NAHT Aspire, because it offered long-term CPD that aimed to provide support for whole-school improvement over a more sustained period and involve the wider staff and governors, compared to other short, 'piecemeal' CPD courses that were available elsewhere. The fact that extensive and sustained support of this kind was funded and, therefore, free of charge (beyond schools' cover costs for Network Day leaders), was also seen as highly advantageous and an incentive for engaging with the project.

What hinders effective recruitment and retention?

There were very few barriers to recruitment and retention reported by the project managers, other than the time delays in agreeing the initial contract, which had knock-on effects for advertising, promoting and recruiting schools for NAHT Aspire as planned. However, they reported that the enablers outlined above ensured that they were able to overcome this and recruit to target.

Given the pressure that participating schools were under, some participant leaders had initial concerns about the extra commitment involved, and additional demands of a multi-stranded whole-school programme. However, this fear was often dispelled, and participants tended to find that the programme was more supportive than they originally thought.

School pressures meant staff changes were still occurring during the programme. In three of the nine case-study schools, a participant leader left part way through the programme due to promotion elsewhere and maternity leave but, in most cases, they were replaced by another key member of staff for the remaining Network Days. So, although continuity in the schools and network was affected, retention of schools on the programme was maintained.

3 Delivery and implementation of learning

3.1 Progress in delivery

The project manager and Achievement Advisers explained that the programme structure focused on three strands: Leadership; Pedagogy and Curriculum, and Assessment for Learning. These strands covered six components: Language for Developing Leadership, Leading Teaching & Learning, Foundations for Learning; Professional Learning Cycles, Coaching for Growth and Putting Data to Work. However, participants did not spontaneously refer to these strands and components in interviews, so the analysis presented here uses the terms and descriptors they commonly referred to, rather than this formal nomenclature.

The key components of NAHT Aspire delivery were the Network Days and Development Days, which were led by Achievement Advisers. Across both sets of delivery days, participants were introduced to, and practised, a range of strategies supported by a raft of web-based resources and tools (described below). Key strategies identified by interviewees included Fast Learning, Achievement Teams, lesson visits and coaching. Commonly mentioned were Edison's Quality Framework for Leadership (QFL) aimed at senior leaders, and the Quality Framework for Teaching and Learning (QFTL) for middle leaders. Venn diagrams (a more generic tool that places pupils in three overlapping rings depending on whether they are making 'expected progress' in reading, writing and maths) were referred to most frequently as the main pupil data tool, with other rubrics and red-amber-green (RAG) rating self-assessment resources cited less frequently.

The NAHT Aspire model of Achievement Adviser delivery involved a repeated series of phased and scaffolded Network Days of 'delivery' and Development Days of supported 'implementation' of strategies. Given the intertwined nature of delivery and implementation, these will be discussed in terms of the delivery of Network and Development Days, followed by the progress schools made in implementing specific approaches in section 3.2.

Network Days

Delivery involved each school receiving two out-of-school Network Days per term (also described as NAHT Aspire delivery phases), with other local or regional priority schools recruited to the project. Network Days were run by two Achievement Advisers who, in the words of one Adviser, 'give information, we share techniques, we talk about strategies, and [participants] get a chance to discuss what that means to their school'. The first Network Day was organised for senior leaders and took a more strategic focus. It was followed by a more practically-focused Network Day for middle leaders. This format was designed so that leaders attending separate days would return to school to continue discussing and action planning the key things covered in their respective Network Days. The intention was also for senior/middle leaders from the different network schools to share experiences and learning together.

This pattern was repeated in the phase 2 and 3 Network Days, with Achievement Advisers commenting that more time was allocated in these for sharing what was working well and problem-solving with each other *'because that collective wisdom is key'*.

The project manager described that the structure of the phase 1 Network Days was less flexible as it needed to include an introduction to the components of the project. However, the Network Day delivery was more flexible as it was a *'balance between input, reflection* [and] *group activity, that's changed and been amended based on the experience of advisors'*. The project manager reported that Network Day feedback was generally positive, and usefully *'brought people together and built trust very quickly'*. However, the project manager, Achievement Advisers and some participants commented that participants sometimes found the phase 1 Network Days, in particular, as too information-heavy and overwhelming, making some leaders *'wobble'*. The project manager and advisers indicated that, following participant feedback, this was rebalanced so that the phase 1 Network Day gave a more general big picture of the project components rather than the detail of the year ahead and the full range of complex resources.

DfE observations of phase 2 and 3 Network Days took place in November 2019 and were completed by two DfE observers. They both rated the delivery of these days as *'good'* overall (with options ranging from 'excellent', 'good', 'satisfactory', 'poor' to 'very poor'). This included a rating of the quality of the trainers' delivery (excellent, good), the quality of the training materials (both good), the content/structure of activities (excellent, good), the pace (both good) and participant engagement (excellent, good). In feedback gathered from participating leaders as part of one set of observations, the DfE observer noted that leaders were already adapting the Quality Framework and other tools to meet their schools' needs.

Development Days

Following the Network Days, the Achievement Adviser arranged two Development Days with each school, each term for the three terms or delivery phases, building on and supporting the implementation of the strategies introduced to the networks. Described as a *'bespoke team approach, in terms of direction and speed of travel',* the Achievement Advisers explained that the structure of Development Days involved assessing the schools' strengths and development areas, then identifying priorities for intervention, which were demonstrated, practised, planned, reviewed, adapted and embedded over subsequent phases. Key to this approach was the development of leaders' ownership of the direction and pace of intervention to meet the specific needs and context of the school - coupled with ongoing self-evaluation, using the resources for guidance, reference and recording progress. As one Achievement Adviser explained, the underpinning frameworks and resources meant:

They've got something objective that we can point them towards. It's not me saying it, because I'm in and I'm an advisor, it's because in this book here – look, it says that, what does that mean to you? How would you interpret that, in that situation? What bit of your practice are we talking about? I know we're talking about those two children who wouldn't sit still, but what part of your practice are we trying to improve? That's the sort of thing we'd be doing... What do we need to do about it? - Achievement Adviser

Achievement Advisers and leaders described how the Development Days were structured around two, three or more of the NAHT Aspire approaches or strategies – usually lesson visits, Fast Learning, Achievement Teams and Venn diagrams, but all were tailored to specific classes, pupils, teachers, or issues in the school. They reported that Development Days provided time for key leads to have dialogue and reflect upon their practices, priorities and successes, as well as gain an understanding of how small, manageable tweaks could make an immediate impact on practice. Action, feedback and discussion with the Achievement Adviser was important but, more fundamentally, different conversations between leaders and staff were critical to embedding these changes afterwards. Development Days involved the wider staff group and, in some schools, the governors, in different ways, depending on what was planned. They were also important for momentum and energising implementation:

> They were my favourite bit, because that was [the Achievement Adviser] coming in to us and carrying out some joint observations, and the kind of ongoing professional development around that was phenomenal really, because you get to have that conversation about what's happening in your school with that outside expert. They're bound to see things differently to you. - School 3, Senior leader

With the advisor coming in, it motivated everybody to get involved and do something about what we said we're going to do, and keep it ticking along. I think if she hadn't been coming into school to do those days, with so many other things going on... I think there's a chance that it could have been pushed aside. - *School 2, Middle leader*

All 18 leaders interviewed were overwhelmingly positive about the Achievement Advisers' input on Network and Development Days. They were frequently described as being supportive external experts who effectively facilitated the CPD in a way that was easy to understand and tailored to their school's needs. The only slightly negative issue raised regarding the Development Days was their timing, which some felt were too soon following the Network Days. This seemed to have varied across schools and networks, but at least one interviewee commented that there was insufficient opportunity for them to reflect and plan the approaches they wanted to implement.

Across *all* interviews, it was evident that the delivery of Network and Development Days took place as intended – with flexibility built in to meet individual schools' needs:

Whatever support you get is going to be tailored to you as a school. It doesn't have to be a one-size-fits-all model. You're going to have a context at your school that's very specific and the key lead will work with you to ensure that it's right for you. That's exactly what we thought was best about it. - *School 7, Middle leader*

This flexibility and adaptability to schools' needs is also illustrated in Vignette 1 in section 3.3.1 below.

3.2 **Progress in the implementation of learning**

The NAHT Aspire project provided structured school-level support for implementation as an integral feature of its provision. It did this through a series of key interventions that Achievement Advisers introduced to leaders on the (out-ofschool) Network Days and then implemented with the wider staff during Development Days (see Glossary). While schools were advised and guided by Achievement Advisers to implement this structured menu of 'wins achievable in a year', the programme was intentionally designed to be flexible to the needs and circumstances of the individual schools. For example, where another effective approach was already in place, or where timings had to be altered to make the interventions achievable, Achievement Advisers focused on adaptations that would make the greatest positive differences in the short and medium term.

The delivery components referred to most often in terms of their implementation in schools are outlined below and explored thematically from the perspectives of the project managers, Achievement Advisers, school leaders and class teacher participants.

Fast Learning

According to the Achievement Advisors, Fast Learning was the most widely implemented intervention in the project. It was adopted by all nine case-study schools, following its introduction to leaders on Network and Development Days.

To improve foundational learning skills, the principles of Fast Learning were:

- focused
- sustained
- regular rehearsal
- 'quick win'

The Achievement Advisers reported that 'everybody buys into that'. The simple approach to improving fluency, recall and confidence in core mathematics and English skills provided 'very effective short, sharp learning opportunities'. In most cases, it was applied to learning multiplication tables, but also extended to addition/subtraction and number bonds. Using a 10x10 multiplication grid, for example, a Fast Maths session of 5-10 minutes would be scheduled at least four times per week to allow pupils to 'rehearse' their tables and beat their personal best scores or times each session, rather than being tested or competing against each other. Pupils were told to 'do all the ones you can do and look up the ones you don't know'.

Leaders frequently commented on: the ease and speed of implementing the approach; the *'fun buzz'*, positive engagement, enjoyment and reception from pupils; and its adaptability to other types of foundational learning. As well as being a quick win, one middle leader said: *'it's also given us the language of foundational learning to work with as well and really focus on'.* Another commented, *'part of what children like about it is they can see their own progress'*.

Across most schools, plans developed quickly to roll Fast Learning out to other classes and year groups which were keen to adopt it. As one senior leader reported: *'everybody just wanted to start it straight away'*. So keen were teachers in case-study schools that they developed variations of Fast Learning resources for reading, spelling, punctuation, handwriting editing nd history. In science, it was used by one school in a two-minute exercise to name the parts and functions of a plant – the extent and expansion of the approach's implementation indicated its popularity and perceived effectiveness (see further detail below). However, one middle leader added that, although popular with pupils, resources would need to be *'freshened up'* on an ongoing basis for Fast Learning to continue to be challenging and engaging for pupils.

One senior leader described how their school embraced this *'short, sharp and measurable quick fix for struggling children'* and extended its implementation from Fast Maths to spelling, reading and writing. Pupils were so keen on Fast Maths, they even involved their parents:

Parents did come in to ask us about it, because the children had gone home and told the parents and they wanted to know how we did it. Once we explained it to them, it was so easy and quick to follow, they were able to take the resources and use them at home. - *School 1, Senior leader*

In some cases, changing timetables to schedule in Fast Learning mid-way through the school year was a challenge, but leaders were better able to plan slots for the following academic year:

But now, since September, it's a fundamental part of those year groups' timetables, and that's what made it a lot easier...We've got a slot before our main maths lesson, so the children have got 15 minutes before an hour of maths. - *School 2, Middle leader*

Achievement Team Meetings (ATMs)

Advisers introduced and demonstrated the concept of Achievement Teams at early phase Network and Development Days. It was intended that all teaching staff were involved in an Achievement Team (and in two case-study schools, this included teaching assistants and volunteers). The aim was for teams to be organised either by year groupings or across different year groups, to be held every three weeks – the frequency of these was stated by the Achievement Advisers to be critical to their success. Advisers outlined to leaders and staff the ground rules for effective meeting procedures, with a tightly-timed agenda of items focused on individual pupils' data and achievement.

The regular sequence of meetings started by sharing successes, with one team member bringing data (e.g. from Venn diagrams) or other evidence such as a pupil's book, relating to the pupil they have concerns about. The teacher was allotted 10 minutes, split into a strict 2-6-2-minute format for outlining the specific issue, receiving ideas from the team, and planning next steps, respectively. Other members of the team were given the roles of scribe, note taker and process observer. The approach of the meetings was intended to be pupil-specific, action- and solution-focused, enabling reviews of previous actions and outcomes and opportunities for assessing possible ways forward.

In terms of implementation, all case-study schools and leaders introduced and adopted Achievement Teams to varying degrees. In most cases, staff saw the immediate benefits of this focused approach and regular meeting slots were found to embed and continue the process with success. These were reported to be particularly effective where ATMs were cross-phase/year groups.

One case-study school reported initial teething problems in rolling out the approach:

We didn't quite get [ATMs] right when they were initially rolled out. I think that's partly down to our understanding of it and that inhibited it. Maybe we tried to do it a bit too soon. Maybe we should have made sure we were secure before we launched them. ...We tweaked them through conversations with ourselves, conversations with [name of Achievement Adviser]. Yes, I think we've tweaked them now to a point where they're working reasonably well. - School 6, Teacher

However, after these initial issues, the teacher in School 6 confirmed her leaders' reports that ATMs were continuing to run effectively across staff and year groups. In her ATM, for example HLTAs (higher-level teaching assistants) and Early Years teachers had made effective suggestions that helped support her struggling Year 6 pupils.

In School 3, all teaching staff, teaching assistants and volunteers were reportedly involved to great effect:

Everybody comes to the meeting with an answer for the other people, even if that meant googling or perhaps going to see more senior colleagues, so that you had something, a suggestion, to present. Because it was about allowing everybody to feel that the answers were within them and they could find them, and they could support one another to find them. - *School 3, Senior leader*

An Achievement Adviser reported that, in one school they worked with, teacher and TA (teaching assistant) Achievement Teams were so well established and having *'such a massive impact'* that they became an Achievement Team hub school for four other primary schools in the trust, with TAs stepping up as leaders of change beyond their school:

So those leaders including the TAs who are running the TA Achievement Teams – there's two of those – are acting as leaders of this now across a group of schools. It's actually giving them some really good experience of working outside of their own setting and leading change beyond. It's been a fantastic example of it really. - *Achievement Adviser* Schools were able to adapt the ATM approach to fit their circumstances and needs. For example, the small size of School 2 meant they had opted for a three-team model – one team covering two or three year groups (e.g. nursery, reception and Year 1 as a team). They had replaced staff meetings with half-termly Achievement Team meetings, using the NAHT Aspire materials and 2-6-2 format to set the agenda for those meetings – *'it's a chance for staff to support each other'*.

In two cases where the programme was introduced part way into the academic year, consistent, frequent meetings were initially more difficult to schedule and implement. Leaders in these schools reported that they planned to build them into the following academic year. The Achievement Adviser corroborated that the academic cycle and other priorities meant that, in a few schools, staff had received ATM training with the intention of embedding them fully in the future instead of immediately due to timing constraints.

The middle leader in case-study School 1 identified that an imminent Ofsted inspection meant they had not found the time to implement ATMs as often as they would have liked to. In School 7, the middle leader reported that although the regular pupil-focused meetings started well, they had dropped off in frequency. Instead, staff effectively adapted the 2-6-2 approach for other meetings, which enabled staff to 'step up':

It's absolutely changed [meetings]. It's far more collegiate, collaborative and it's bringing our middle leaders on, the year leaders, in terms of their confidence in leading a meeting. - School 7, Senior leader

Lesson visits and learning conversations

Achievement Advisers worked with middle leaders to implement the lesson visit model, which was then rolled out to teachers across the school as a more supportive alternative to the *'traditionally autocratic'* lesson observations. Participants in schools judged to be RI often described lesson observations as being a high-threat, negative experience during their Ofsted preparations and inspections. In contrast, lesson visits involved supportive pre- and post-visit learning conversations that enabled the teacher to identify the key learning focus or intended outcomes of the lesson, for example the learning concepts, or misconceptions that pupils might have. These *'high-quality, professional, structured two-way learning conversations'* were intentionally developmental and delivered in the style of coaching, drawing out from the teacher how they felt the lesson went, and the successes and challenges in terms of pupils' learning rather than their teaching per se. This process was supported by the main underpinning framework documentation for teachers, Edison's Quality Framework for Teaching and Learning (QFTL), which led the 'power themes' – described as *'what good teaching and learning looks like'*. These

resources were often referred to as the helpful and accessible focus for the conversation, providing *'the language to articulate how something could be better, or why something hasn't worked'.*

This alternative to the universally perceived critical style of lesson observations – which traditionally involves making judgments on lesson quality – was perceived to be much less threatening to teachers and was implemented across all case-study schools. Lesson visits were conducted not only by senior and middle leaders but, in some cases, by peers, enabling good practice to be more widely shared. Lesson visits were received positively and much preferred, so in all case-study schools, they replaced the previously stressful observations. The Achievement Adviser confirmed that the approach had been embedded in schools:

I think the lesson visits were probably the most significant aspect [that schools adopted]... they took on lesson visits in some shape or other. Some of them used it for leaders to go into lessons. Some of them paired up and made sure that there was more of a coaching culture, more of a lesson visit / lesson study kind of approach. So I think they all used that [lesson visits]. - Achievement Adviser

Leaders also reported that lesson visits enabled teachers to *'reflect on their own practice, not wait for someone to tell them how to get better at it' and 'to feel that their professionalism was valued',* which led to much deeper self-evaluation capacity. The 'learning behaviours' tools - focused on the pupils learning outcomes for a lesson - used during the lesson visits, were reported to also inform teachers' lesson reflections more generally, not just those pertaining to the lesson being visited:

It's not something that is just seen on the day. It's something that they're working towards all the time, looking to those positive learning behaviours that are the good and the outstanding that they're trying to aspire to. - *School 3, Middle leader*

Implementation was sometimes a slower process as it involved changing teachers' expectations. One leader acknowledged that it would take time to change the observation judgement mindset:

I still have teachers saying, ooh when's my observation? Or, was it a good lesson? So we've got some way to go. I would say there's 23 teaching staff, and at least 15 of them get it, prefer it, understand it, and can see why [lesson visits are] a much better process. But there are still a few people who seem to feel it's the job of someone else to come in and tell them what to do to get better. - *School 2, Senior leader*

Coaching

Much of the Achievement Advisers' approach to guiding leaders through the NAHT Aspire strategies and techniques involved using a developmental, coaching model (e.g. learning conversations) - yet the explicit implementation of peer coaching or coaching pairs was not as strongly evident from the interviews with Achievement Advisers or leaders.

Coaching was introduced and practised on the Network and Development Days but, as the DfE observer noted about a 2019 Network Day, this lacked structure and participants did not adhere to the activity instructions. In interviews, leaders tended not to mention coaching explicitly as a key approach they found helpful (though some did), and it was generally discussed in much vaguer terms by leaders and Achievement Advisers alike. Beyond adopting the learning conversations as part of Achievement Teams, most leaders identified that for them, the more formal NAHT Aspire's coaching pairs model was the least well-developed and implemented aspect of the programme.

Although they could see the potential benefits of coaching pairs, some leaders reported they already had some form of coaching in place, had adequate skills for talking to staff, or could not find the time to fit in it, so chose not to adopt the NAHT Aspire coaching model. One leader thought that some colleagues needed longer-term career mentoring (about wider ranging career-relevant issues) rather than the intervention-specific coaching approach offered as part of NAHT Aspire (see also Vignette 2). Others commented:

It's a time thing really. There's been so many other priorities and focuses. We had the initial training, we set up coaching pairs, but then...to actually release people to give them the time to do it really effectively hasn't been possible. - *School 3, Senior leader*

With the coaching...we did sort of try and adopt it, but I think it was more of a case that our head teacher didn't particularly like that way of feeding back to teachers. It got dropped quite quickly. - *School 5, Middle leader*

One Achievement Adviser reflected that, although she encouraged use of the coaching model, she did not push it. She suggested that some schools and leaders perhaps found the coaching mindset and process more difficult to adopt, compared to the other NAHT Aspire interventions: *'It sometimes seems hard work looking for the answers yourself - sometimes you don't know what you don't know'... or* [staff] *wanting somebody to decide the direction for them'.*

The EdisonLearning project managers also acknowledged that coaching was less popular, perhaps because it was a longer-term strategy, more feasible as part of the three-year programme where there was time to develop and support this element. Leaders could see the potential value of it but needed approaches that were *'more immediate to focus on to fix things'*. Overall, the formal coaching process seemed to be the weakest element of the programme in terms of engagement and implementation by leaders, but when coaching was incorporated more implicitly into the regular lessons visits and learning conversations the approach was more effectively operationalised and directly impactful for leaders and staff alike.

Web resources

NAHT Aspire provided a comprehensive and detailed range of resources that were introduced at Network Days, referenced by Achievement Advisers and used to varying degrees by participants throughout the programme. These were available on the dedicated web portal ('Frog') and the most commonly mentioned were the Quality Framework for Leadership (QFL); the Quality Framework for Teaching and Learning (QFTL); Achievement Teams handbook, including 'power themes' and 'spotlight on learning'; foundational/Fast Learning resources; Venn diagrams; coaching materials, and instructional/demonstration videos. Organised under a multidimensional system of components, strands and elements, each of these resources linked to additional suites of audits, RAG rating and self-evaluating tools, guidance and rubrics.

Feedback from participants, reported by the project manager, suggested that some found this array of resources initially overwhelming and off-putting. Achievement Advisers were aware of the potential for initial overload and adjusted their approach, acknowledging that it sometimes was not until phase 3 that leaders *'get it'* and realised the benefits of certain tools. Interviewees referred to *'too much bumph', 'too many acronyms, terms and concepts'* to take in, but with the Achievement Adviser's guidance they were able to navigate their way through the main documents on Development Days when they were explained and applied practically.

Although admittedly complex, one Achievement Adviser explained that the QFTL was a key resource that linked the Ofsted framework for highly effective teaching to very specific learner behaviour in the classroom that teachers could influence: '*It really becomes an unthreatening way to look at your own practice or other practice within school, because you're looking at the learning'.*

Similarly, leaders interviewed at the end of the programme frequently mentioned that the QFTL was relatively easy to navigate and put into practice:

Although there is tons and tons of reading that they give you, the layout is such that you can see the direct link between what you're reading and what's going to happen in the classroom... I

can see the impact of what they're telling me. - *School 1, Middle leader*

Nearly all the participants interviewed reported that they had accessed, used and saved some key resources, relating to aspects of Fast Learning, Achievement Teams, audits, learning conversations and lesson visits. Many found these resources useful, but acknowledged that they had only scratched the surface of what was available and would be coming back to some things at a later stage, because of current time pressures:

I think slow and sure was the way to go. And I think with any group of teachers if you give them too much new stuff too quickly, they may pay lip service to it, but they won't actually take it on board properly. - School 3, Middle leader

One Achievement Adviser reflected that leaders tended to make less use of the Quality Framework for Leadership (compared to teachers' use the QFTL) – partly because more RI schools were at the earlier stages of establishing distributed leadership, so not all aspects of the QFL (which included tools for use at future stages) were appropriate for their current needs.

In at least three schools, the power themes and other key concepts and frameworks were incorporated into the new teacher appraisal and monitoring, and evaluation processes developed during the course of the programme. Key resources also underpinned school improvement priorities – becoming *'the nuts and bolts of their school system'* - further embedding the interventions and approaches as core parts of the schools' ongoing direction (e.g. School 9).

Venn diagrams - data-driven decision making

Venn diagrams are a simple, visual method for mapping pupils' progress from their last key stage, to identify those who are not on track to make their expected progress in reading, writing and maths, and formed an element of the data-driven decision-making approach. In cohort 1 case-study schools, leaders reported using NAHT Aspire's data decision making model and Venn diagrams to varying degrees, with some reporting that they improved the way teachers used data to more effectively inform pupil-specific interventions An Achievement Adviser also commented that this approach '*makes quite a lot of impact across most of the schools'*. However, some leaders pointed out that Venn diagrams were not specific to NAHT Aspire, and some already had a similar tool in place so did not need to implement this intervention. By cohort 2, this finding emerged more strongly with a number of schools stating their use of data was already a strength.

In both cohorts, however, some leaders and teachers noted that the questions asked about the data (rather than the specific use of the Venn diagram) had improved their utilisation of that data. These interviewees reported that decision making is now undertaken with more confidence, because it is visual: *'we can see the class or year group progress at a glance without wading through pages of data'.*

In at least three schools, one simple Venn diagram now replaces a myriad of timeconsuming spreadsheets and forms to review progress and monitor interventions. It is being used for different purposes, across different meetings including with parents, and is now part of the appraisal process. It also informs teachers' conversations about progress and frees up time for these deeper discussions:

That is now our fundamental ongoing assessment of a year group. So, when we have the progress meetings with the year group, they will bring their Venn diagram, we will talk about children that have moved, where they've moved to, where we think they could move to, and we use that. - *School 2, Senior leader*

To summarise, the NAHT Aspire TLIF project was based on EdisonLearning's existing tried and tested programme, delivered by experienced Achievement Advisers who guided leaders through a suite of 'quick win' changes to leader and teacher practice. Staff grasped these quickly, implementing and adapting them to best meet the needs and circumstances of their school. The programme was designed to be translated, applied and enacted with ease and, from the evidence from leaders and teachers in all nine case studies, and from Achievement Advisers and project managers, this was fairly consistently achieved.

3.3 Challenges and enablers in effective delivery and implementation of learning

Analysis of the interview data revealed a number of factors that enabled and challenged the effective delivery and implementation of the programme at the level of the provider, the school and wider external context. Each is considered thematically in turn.

3.3.1 Factors related to the NAHT Aspire project provision

Enabling factors relating to provision

Focusing firstly on the enablers, the findings indicate that core to the provision of EdisonLearning's TLIF programme was the Achievement Adviser model of delivery. This was key to enabling effective delivery and implementation of the NAHT Aspire strategies and approaches. Interviewees identified the following enablers:

Enabler 1: Highly regarded and skilled Achievement Advisers working with the same schools throughout the project

Achievement Advisers were highly regarded by all the leaders interviewed from the nine networks (led by different advisers) for their expertise, understanding of their schools' specific contexts and challenges, flexibility and tailoring of the programme and support. Leader interviewees also noted Achievement Advisers' competence in guiding them through the complex resources, advising, demonstrating, non-judgementally challenging, feeding back, and encouraging leaders and staff.

By working with the same schools throughout the project, Achievement Advisers were able to build trust and continuity across staff within individual schools during the intertwined delivery and implementation processes.

Enabler 2: NAHT Aspire programme design principles

To summarise the findings outlined earlier, the programme design enabled and provided:

- A whole-school focus, with strategic engagement of senior and middle leaders through tailored Network Days, followed by Development Days for the active engagement of leaders and teachers – all guided by the Achievement Adviser who feeds back on progress.
- Fast Learning, Achievement Teams, lesson visits and learning conversations accessible changes to practice that provided 'quick wins' with flexibility and adaptability built in, underpinned by a comprehensive rationale, strategies, frameworks and resources.
- A primary emphasis on improving pupil learning behaviours, matched by the teaching approaches needed to enable these, which then linked directly to Ofsted descriptors.
- An emphasis on strengthening and sharing existing good practice, widening the leadership base and opportunities for 'stepping up' and more effective data use, intervention planning and reviewing with a focus on improvement.

The key aspects of the NAHT Aspire programme that enabled it to be adapted and adopted flexibly to meet schools' individual needs are illustrated by Vignette 1 below - a small middle school deemed secondary (also eligible for the programme as the school included Years 5 & 6), graded as RI following their previous Ofsted inspection. It is located in a predominantly white British, deprived semi-rural area, with around 230 pupils on roll in Years 5-8. The school is federated with a feeder high school and sister middle school, with a governing body serving all three schools. A number of staff work across middle and secondary years, with some middle leaders taking responsibility for pastoral support or Key Stage 2 subjects. This vignette highlights that, even though the NAHT Aspire programme is geared towards primary schools, there are opportunities and challenges in flexibly adapting the programme for secondary phases, which have led to several of the intended outcomes and impacts, as identified in the ToC (Appendix A).

Vignette 1 – Adapting NAHT Aspire to meet the needs of a Middle School (School 8)

Attendance at Network Days: the small staff numbers, mixed roles/ responsibilities across Key Stage 2 and 3, staff moving on, and competing priorities, meant that the nominated senior and middle leaders could not attend all days as intended. The fact that the NAHT Aspire network started partway through the academic year in January was also problematic in terms of scheduling interventions and meetings. This 'patchwork attendance' presented some challenges, but the Achievement Adviser and programme delivery accommodated the school's needs and changes.

Fast Learning: Fast Maths, Reading and Writing were initially introduced to Years 5 and 6. The approach was found to be so effective at securing fluency in basic skills that it was subsequently adapted for use in maths with less able pupils in Years 7 and 8, with a plan to extend it to Year 9. This illustrates that Fast Learning is also adaptable for Key Stage 3 as well as lower primary groups - with teachers even exploring uses for more able and older pupils. As a senior leader commented:

> And it's worked really well with some of the less able children in Years 7 and 8. Particularly those who didn't get the level or standard last year in Year 6, the Fast Maths has helped them really get going from there. Not so much with our more able children, so we're trying to adapt that – there are some more things we can do from there.

Its ease of implementation, adaptability (including to history and science), perceived effectiveness and wider adoption to the other schools in the federation are indicators of its impact and sustainability.

QFL and QFTL tools: The senior and middle leaders identified multiple resources that were helpful in enabling conversations between leaders and teachers. These *'new ways of doing things'* are being extended to the other federated schools. The senior leader outlined how they were working:

From my point of view, the SLT audit at the start was really, really helpful. The lesson conversations information was really good.

We sat down with somebody who's one of our best teachers and we discussed it and we found there was a big hole where she just hadn't [identified a gap]... and she just went, ah yes, I see that I'm missing that. So, for me that whole 'what makes a good teacher', all that sort of stuff has been very helpful, and we've been able to do lots of work around that.

Lesson conversations are now part of the staff development process within the school, with implementation plans developing across the other federation schools. Achievement Teams have been adapted to fit the Federation's approach – a kind of hybrid approach, which is not always data driven with Venn diagrams as the Achievement Adviser initially suggested, but where more generic issues are brought to meetings (e.g. books), which is working well for them.

Class teacher's experience: An early-career Year 5 teacher, with an interest in developing literacy teaching, took part in the Development Days last year. NAHT Aspire provided stepping up opportunities as she worked with the Achievement Adviser to implement Fast Learning, develop her classroom practice and then support colleagues. Together, they adapted and introduced Fluent Reading and Fluent (hand)Writing to Year 5s, then Year 6s. This involved four minutes of Fast Reading every morning and three minutes of Fast Writing in the afternoon – across all classes in both years, with teachers collaborating and sharing newly developed Fast Learning resources.

Fast Writing highlighted issues some pupils had with handwriting legibility, so this was taken to an Achievement Team meeting, which included other year group teachers, TAs and a newly appointed SENCO:

> There were six of us in the Achievement Team meeting for Key Stage 2. We've got a new SENCO this year, so she's come from a primary school [...] and she has loads of really good ideas. [I brought my pupil who] is not forming his letters correctly, so [the SENCO] said...in my old school, somebody had dyspraxia and they highlighted every other line of the book so that they're allowed to write twice as big. And it was miraculous. So, four of us did that, and within two weeks their handwriting was immaculate... So, I've got kids now that can get national standard without their handwriting being their weakness, just by highlighting every other line.

I just didn't even think about that, ever. That's helped a good five or six students and now they're capable of putting their own lines on. If you look at any of their exercise books, whether it's maths or English or science, all of their books have got these highlighted lines. It really worked.

She went on to reflect on how these little changes made a big difference to her pupils:

I do like new opportunities and for me it's tiny little things that you can put into place that make a huge difference. And that's what this programme seems to offer. It's that you don't necessarily need to do everything, and even if you adapt it – like the lines on a book has made [pupil] soar in his English writing. And the Fluent Reading has given some kids that have never spoken in a day – they're [more engaged with reading and] excited to hear a story being read. It's little things like that.

She noted that boys, in particular, were more engaged with (Fast) fluent reading, often choosing the class book to read ahead in their mixed ability peer-pairs:

It's a bit of peer mentoring isn't it – the stronger readers are able to help the weaker readers and because they're not sat with a teacher they seem to respond more to the children.

She was surprised when some of the previously reluctant boys went home and bought the book, describing Fast Reading as *'igniting boys' reading like a 'Harry Potter'-type effect'*. Although she had no data to back up the impact, she was (at the time of the interview) looking forward to SATs to see if the impact was measurable.

Partly as a result of her Fast Learning experience and responsibilities, this year she has been promoted to the role of English Lead – an indicator of career progression - with plans for extending Fast Reading and Writing to Year 8. She has used the Achievement standards (NAHT Aspire resources) to revamp the English curriculum across all year groups – indicating ongoing use of the resources after the programme end. She described the impact on her personally as increasing her confidence in her teaching and leadership skills, as well as her enjoyment of the job. She reported that it was especially rewarding when she could see the direct impact these changes were having on pupils' progress across the school and the better systems in place for English. All of these outcomes relate to the outcomes and impacts identified in the ToC and logic model.

Enabler 3: Edison Learning's prior experience of delivering the NAHT Aspire's three-year programme

The enabling features of the one-year TLIF programme described above were developed and honed from NAHT Aspire's experience of running their existing three-year programme and built on previous evaluation evidence (Neary et al, 2015). This enabled EdisonLearning to identify the main components of the three-year programme that could be delivered most speedily and effectively over a shorter time period.

Challenging factors related to provision

Turning now to the challenges posed by the NAHT Aspire TLIF model of provision, timing was identified as the main provider-related challenge to effective delivery of the programme.

The timing of the intervention in the academic year emerged as a challenging factor identified by all respondents (including School 8 in Vignette 1 above), when asked about any barriers to delivery and implementation. For many leaders, starting the programme partway through the year was problematic in terms of fitting new interventions into their established planning cycles and timetables – particularly the scheduling of Achievement Team meetings and, to a lesser extent, Fast Learning sessions. A network phased to start before the summer holiday was generally preferred, although some leaders commented that staff leaving in July and others joining the network in September could result in a lack of continuity. Achievement Advisers and project managers agreed that ideally the programme should start after the June half-term break, enabling time for achievement team meetings to be planned into the next academic year calendar of staff meetings:

When introduced after October half term or in January, the schedule is congested, and leaders are having to decide what to take out to be able to meet [programme] expectations. - Achievement Adviser

Some leaders thought that the time between Network and Development Days needed to be longer to plan in implementation. School leaders also expressed a preference for a longer period of support to help embed the changes. Between 18 months and two years of delivery was seen as preferable by some leaders. One Achievement Adviser acknowledged that the pace and phasing of the Network and Development Days could be challenging for schools, especially the intensity of the first phase, which Achievement Advisers were aware of and attempted to address within the constraints of the delivery timetable. In order to extend the support beyond one year, at least two case-study schools were continuing to work with EdisonLearning advisors after the end of the programme through their paid-for service. They reported that this enabled ongoing support and embedding of the strategies, interventions, and improvement plans (sustainability is discussed further in section 5).

EdisonLearning project managers were clear that the timing of the networks and cohorts, starting at different points during the academic years of TLIF programme, was not ideal - but was a necessary requirement to meet the DfE KPIs and recruitment targets. Given the constraints associated with the timing of some cohorts, project managers agreed that some schools would have benefitted from having more than three terms to fully implement and embed the programme to ensure its longer-term sustainability.

3.3.2 Factors related to the school climate/context

School leadership was the key school-related enabler - or challenge - to effective implementation. The programme was designed to directly engage and commit senior and middle leaders from the start with Network Day attendance, Development Day planning and clearly structured expectations, actions and support throughout the year. Case-study interviews indicated that leaders were able to grasp the benefits of the programme and engage with the ongoing support and accountability offered by the Achievement Adviser.

However, Achievement Advisers noted that, in a small number of cases, disorganised, stressed, unfocused senior leaders – or those with changing priorities, or lacking vision - were more challenging to work with:

> The head teacher matters most, probably in all of this... there were some schools where the heads didn't have a clear direction. Our programme can't give a direction to the head teacher. It can only give tools and support. We can't make a leader do something. We can only support a leader in going from A to B. - Achievement Adviser

Leadership and staff capacity and deployment was also a factor. This could be an issue due to:

- other conflicting or competing school priorities e.g. developing a new curriculum – although this was an area Achievement Advisers also supported some schools with as part of the programme.
- leaders not being able to attend all Network Days, which meant that they
 missed key elements that they needed to understand, which hampered
 progress on Development Days and subsequent implementation and roll out.
- staff turnover due to illness, absence or leaving this was particularly challenging if it was the head/key senior leader. Replaced or returning staff meant disruption to the continuity.

- leaders' and teachers' readiness, openness, and willingness to change was an enabling factor or a challenge if there was resistance.
- schools sending different members of staff to Network Days due to other priorities or staffing issues – this meant some leaders did not experience all the Network Day delivery, which could have a knock-on impact to the implementation of activities once back at school.
- school size where staff in smaller schools were already 'stepping up' with several areas of responsibility or could not arrange cover for Network Days. Coaching was also reported (by Advisers and leaders/teachers) to be harder to implement with a smaller pool of staff.
- in larger schools, embedding interventions could be more difficult as Achievement Advisers had less intense contact with individual teachers, diluting the potential impact of Development Days and subsequent implementation in schools.
- teacher deployment in middle schools aspects of the programme were flexible and adapted for Key Stage 2 and Key Stage 3 (see Vignette 1), but ATMs were more challenging when the targeted Key Stage 3 pupil had multiple teachers:

achievement teams are more manageable in a primary setting because you're looking at the whole child. - *School 8, Middle leader.*

• schools being part of a trust or federation where changes to systems and operations had to be made across all schools, not just intervention school, which meant that some interventions were partly or more slowly implemented.

3.3.3 Wider, external factors

External factors also impacted EdisonLearning's delivery, and schools' implementation of the programme. For EdisonLearning, this was reported by project managers to mainly relate to the need to start networks at different points in the academic year, following contractual delays and the need to meet the programme targets. A June start for September implementation would be EdisonLearning's preferred scheduling for maximum effectiveness (see timing in 3.3.1 above).

For schools, external pressures and policy changes impacted the extent to which schools were able to focus on implementing programme components. The time and effort needed to also deal with conflicting or competing priorities, or projects taking place in school, were reported to affect the level of participant engagement in Network and Development Days and subsequent implementation of the approaches. Examples of actual and potential barriers cited by leaders included changes to the Ofsted framework and the new broad and balanced curriculum; the new

Relationships and Sex Education policy; trying to drive standards up with decreasing amounts of funding, and conflicting advice from Ofsted, the Local Authority or MAT. In most cases, the Achievement Advisers reported meeting with external stakeholders to explain and explore how their objectives for the school could be achieved using aspects of the NAHT Aspire programme.

From March 2020 (when interviews were still being conducted), the sudden closure of schools due to Covid-19 severely impacted the implementation and embedding of key elements of the programme that were being established or due to continue when standard teaching came to an end. Year 6 SATs and Ofsted inspections were cancelled, depriving schools of the data and evidence they needed to show NAHT Aspire had made a positive difference to their results and outcomes.

4 Perceived outcomes and impacts of the provision

This section considers the perceived contribution of the EdisonLearning project to the TLIF programme's intended outcomes and impacts and to a small number of bespoke project outcomes (relating to data use, self-evaluation and coaching (see Table 5). Overall, there was a high level of alignment in NAHT Aspire between the fund-level outcomes and the project's own goals.

This section primarily draws on qualitative data, exploring different stakeholders' perceptions of the outcomes and impacts of the project, and providing context for interpretation of these. This is supplemented by secondary analysis of SWC data to report changes in teacher retention and progression.

The analysis of impacts utilises a comparison group design. This enables us to estimate counterfactual retention outcomes for teachers, and infer whether or not changes in teacher retention and progression might have come about in the absence of NAHT Aspire.

Please note that, as the evaluation design does not include surveys, we are unable to provide a measure of the relationship between the project and any reported outcomes. The outcomes reported here are based on perception data and, therefore, should be regarded as illustrative rather than conclusive.

4.1 Intended bespoke NAHT Aspire and TLIF project outcomes and impacts

The qualitative interviews and case studies primarily explored perceptions of the project-specific outcomes and impacts of involvement in the project on different stakeholder groups (direct participants, teachers and pupils) and on the wider school, and gathered perceptions of achievement of fund-level project outcomes relevant to the NAHT Aspire project. The qualitative data is also analysed to explain the reasons for these findings.

Tables 2-7 below set out the intended NAHT Aspire project outcomes and impacts as agreed with EdisonLearning at the beginning of the project. Bespoke NAHT Aspire-specific outcomes and impacts are indicated with an asterisk in the tables below and are reported in section 4.2. Findings related to fund-level outcomes and impacts are reported in sections 4.3 and 4.4.

Table 2: Intended project outcomes for senior leaders

Theme - Improved quality of senior leadership	Outcome or Impact
Leaders develop generic competencies	Outcome
Leaders are self-evaluating	Outcome
Leaders have confidence in their potential impact	Outcome

Table 3: Intended project outcomes for middle leaders

Theme - Improved quality and distribution of leadership	Outcome or Impact	
Leaders develop generic competencies	Outcome	
Leaders are self-evaluating	Outcome	
Leaders have confidence in their potential impact	Outcome	

Table 4: Intended project outcomes for teachers

Theme - Improved quality of teaching	Outcome or Impact
Teachers develop pedagogical competencies	Outcome
Changes in practice in terms of better/more impactful day-to-day teaching	Outcome
Teachers are confident to talk about teaching and learning and continuous improvement	Outcome
Teachers have confidence in their potential impact	Outcome

Table 5: Intended project outcomes and impacts for schools (including other staff¹⁰)

Theme – Improved:	Outcome or Impact
Data use, to more effectively target intervention*	Outcome
CPD - barriers removed	Outcome
Demand for CPD	Outcome
Systematic approach to teacher development	Outcome

¹⁰ Outcomes with an asterisk are bespoke to the NAHT Aspire project. Outcomes/impacts without an asterisk relate to both project and TLIF fund-level outcomes and impacts.

Theme – Improved:	Outcome or Impact
School self-evaluation (more rigorous)*	Outcome
Coaching for and by leaders is established within the school*	Outcome
Leadership (more distributed)	Outcome
Sustainability - effective teaching strategies embedded into schools' operating systems (sustainability)	Outcome
Improved school Ofsted rating*	Impact
Progression and retention of effective teachers and senior leaders	Impact

Table 6: Intended outcomes and impacts for pupils

Theme – Improved:	Outcome or Impact
Pupils' progress in terms of foundational skills in maths, reading or transcription	Outcome
Pupil attainment	Impact

Table 7: Intended outcomes for challenging areas

Theme – Indicators of:	Outcome or Impact
Improved capacity for delivering CPD leading to sustainable change	Outcome
Enlarged pool of effective leaders based in the area	Outcome

As part of the evaluation, the intended NAHT Aspire outcomes were reframed to align more closely with the TLIF fund-level outcomes and impacts. They have been grouped and discussed thematically below with adjusted subheadings to enable comparison across TLIF projects. Themes related to the bespoke NAHT Aspire outcomes are reported first, followed by fund-level outcomes.

4.2 Findings related to bespoke NAHT Aspire outcomes and impacts

The following NAHT Aspire-specific outcomes in Table 5 and 7 above, are bulleted and discussed below, drawing on the case-study evidence.

• Data used more effectively to target intervention

- School self-evaluation is more rigorous
- Coaching for and by leaders is established within the school
- Improved school Ofsted rating
- Enlarged pool of effective leaders based in the area

Bespoke project outcome: Data is used more effectively to target intervention

Cohort 1 case-study schools spoke about the data-driven decision-making element of the programme. Some talked about the helpfulness of Venn diagrams in enabling them to visually represent pupil Key Stage data and identify those not making expected progress in reading, writing and maths in order to target interventions – but a similar number reported that they already had adequate systems in place to do this, so switching to Venn diagrams was not necessary for them. This pre-existing strength in schools' use of data emerged even more strongly in cohort 2 case studies, so this aspect of implementation was not always a priority.

An Achievement Adviser explained that the vast majority of RI schools had become relatively sophisticated and confident in their use of data, due to this being a primary focus for Ofsted. Nonetheless, there was still considerable scope for the Achievement Advisers to work with leaders on how to better link their data to targeting effective interventions for specific pupils. For some, the Venn diagram simplified their previously complicated data analysis tools.

Middle leaders commented that the focus on data-driven decision-making enabled them to understand why their school was already doing what they were doing, as it had previously been top-down with the head or deputy taking control and teachers doing what they're told. In two schools, staff reported that, although Venn diagrams had been adopted and were useful, their use varied across year groups/classes, but leaders were aware of this patchiness and were addressing it. In another school, the middle leader described ATMs as not being data-driven with Venn diagrams. Instead, books were used as the evidence for targeting interventions.

Project managers explained that Achievement Advisers recognised schools' strengths around data in cohort 1, so for cohort 2 delivery the time that was planned into the programme for that component was redirected to other priority areas for the school – indicating the responsiveness of the programme to flexibly adapt and meet individual schools' needs.

Bespoke project outcome: School self-evaluation is more rigorous

As outlined further in section 4.3.1 below, self-evaluation underpinned the intended outcomes for leaders. The analysis of all interviews indicated that this was intentionally cascaded down to teachers and pupils too, via the strategies and

approaches of the programme: 'At the heart of the model is 'what can I do to improve?'' succinctly summarised this.

Findings suggested that most senior leaders believed they were already quite strong in this area but, in areas where they weren't, several elements of NAHT Aspire enabled them to identify their strengths and weaknesses using various tools to improve their self-evaluation:

I would say that we were reasonably good at [self-evaluating] anyway. We identified what we needed to do. Yes, a lot of [the programme] has definitely helped. A lot of [NAHT Aspire] stuff went into the self-evaluation – the learning conversations and the achievement team meetings. - *School 6, Senior leader*

For emerging and middle leaders, the programme helped them to understand how they were a 'part of that process and the importance of [their] role within accurate self-evaluation'. Several reported being more confident, candid, analytical and strategic in their thinking, and able to triangulate different evidence sources rather than just be operationally focused on their own classrooms. Achievement Advisers also helped them to recognise their strengths and have a more balanced, externally validated appraisal of their achievements:

> Through working with [Achievement Adviser] we've seen improvements and perhaps we're more accurate now with our judgements when we're evaluating ourselves. We're still critical, but the data really was driving our decisions for everything, regardless of what was happening in school and the other information we had...We're certainly not [RAG rated] green for everything, but see the good things that we're doing as well. - School 7, Middle leader

The Quality Framework for Leadership and RAG rating exercises were identified as being instrumental in underpinning rigorous self-evaluation, with the principles of coaching (through lesson conversations) enabling them *'to get to the bottom of what it was they were trying to find out about'*. Senior leaders spoke about their evaluative capacity being enhanced by the programme, enabling them to see the bigger picture in a different way. One headteacher could now see *'threads and themes across the whole school'*, rather than isolated problems with specific pupils, teachers, classes, or cohorts, so could address emerging issues more strategically and effectively with *'a big school push'*.

This self-evaluation extended to the teachers interviewed, who described being more *'aware of the next steps'* to improve their practice and pupils' learning, with a clearer

set of plans for the key actions to take. They also spoke of how their pupils were also self-assessing their learning using self-evaluative approaches too:

As staff, hopefully being able to look at yourself and you're obviously evaluating what you've delivered, what the children have achieved – so are they - and really thinking about questioning that, or why, what if, why, looking at those sorts of things. - *School 8, Teacher*

In three schools, staff talked about the incorporation of self-evaluation into their appraisal systems, which further embedded the processes with more rigour, making their appraisal 'less about the teacher and again more about your value as a teacher in what [the children] are getting rather than what CPD you've just been on'. More broadly, the focus on key areas and the iterative process of constantly evaluating and making adjustments meant that 'as a school I think we're becoming a lot better because the process is becoming more embedded'.

Bespoke project outcome: Coaching for and by leaders is established within the school

As outlined in section 3.2, coaching was the approach that leaders, teachers, Achievement Advisers and project managers agreed was not implemented as fully as intended in its most explicit form. Instead, coaching approaches formed a key part of the lesson visits conversations that were more successfully implemented and established across all case-study schools.

The composite vignette below illustrates the ethos and effectiveness of coaching as it is built into the programme in different ways.

Vignette 2 - Coaching

One Achievement Adviser described how coaching is used more effectively when these supportive professional conversations are conducted informally, and how it can be transformational for even the most struggling teachers:

> I think the formality – doing it in a formal structured way doesn't seem to work. Where I've had more success with schools is **to talk about the principles of supporting staff to be effective**. That idea of try and put the ownership of the decisions that need to be made with the person who's actually got to carry out the action.

Try and get them to identify that for themselves if they can. If they can't, give them a couple of solutions. So, we go through to the mentoring. If they're really stuck, tell them what to do. And where [we've talked with] schools about that's the principles for having professional development conversations – any professional development conversation – rather than the direct route of just going and telling them what to do. **It develops and impacts on longer-lasting change**.

So, I don't necessarily use the word coaching in any of that. I talk about the **principles of professional development** with my schools. And that settles better. Very few schools took up the opportunity on each of the TLIF Development Days in school of having a coaching conversation for the headteacher or the deputy head teacher or otherwise. But I think that was fine. I didn't push on that, but ultimately every conversation I was having with those leaders during the day was a coaching conversation, but I just didn't call it that.

...I can think of probably getting on for half a dozen teachers that have been really close to being on capability proceedings and the quality of teaching being really, really poor, that with a little bit of **adaptation between the mentoring and the coaching and the tutoring** and deciding who's providing which bit and in what order, that they have within the time of the TLIF programme become a stronger teacher, **become a more effective teacher**, and then been able to move towards the mentoring side of things where it's 'here's a number of ideas, which one do you think is going to work in your classroom?'. And that's the first step then to **rebuilding their confidence and ability** to move to the actual direct coaching question of 'what do you think you should do about it? What do you think are the options?'.

Another adviser explained:

Everything is about professional dialogue I suppose in terms of... the systems are the systems, but the thing that makes the systems work is the dialogue and the conversations and then leading to thought-through action. Rather than just go 'we're going to do this' or reacting, I think we enabled people – the coaching conversations enabled people – to think through and really consider quite carefully why they were going to do what they were going to do, whether it would be implementing Fast Learning or Achievement Teams or doing lesson visits. Particularly in the Inadequate schools, the lesson visits... people wanted to make sure they really did bring the staff with them, so we often had a gentle approach where we did one or two and we fed it... because I think in those schools you've got staff that have been bombarded with observation, so it was trying to just be a support, be challenging, but be supportive at the same time. And not overwhelm. And telling people... the change management strategies were very important, because we're trying to change things rapidly, but you have to embed things and help people choose the priorities.

Exploring why formal coaching did not work so well, a different adviser reflected:

I think what's working less well is probably [formal coaching], because it's about mindset, in some schools you feel that you coach into coaching. I potentially think that's because it sometimes seems hard work in terms of looking for the answers yourself. As a company we do give a structure in terms of a coaching conversation which schools, when they do enter into it, find highly effective. I think some schools shy away from [formal] coaching, because it's harder work - sometimes you don't know what you don't know, or maybe the fog is there and you're just wanting somebody to decide the direction, but we do encourage the coaching. But probably potentially I'd say out of anything that might be the thing I'd say was – not less effective but you're not pressurising people, but you are encouraging people rather than them putting time to do it.

I'm not sure whether it's the process. I think it's more to do with encouraging the leadership team within the programme almost to do trials of coaching together. So potentially schools might be seeing that as a slight barrier as to – 'well, I've got two people in the classroom'. Leaders confirmed the critical value of coaching as part of the lesson visits and how it has impacted their schools' culture, processes and future plans:

> The most important [approach] will be the coaching method. The meeting with staff beforehand, them telling us what we're going to see, so I think having that face-to-face meeting before we go in. ...that's the lesson visit as well. And we now just tend to go for 20/25 minutes, but there's the understanding that we might drop in at any other time once we've got any action points. And I think that's **helped develop a culture where it's working in partnership** rather than as we said before – well we want you to do this, because ultimately the teachers know their children, their individuals, better as the year goes by. So, we found that that was much better. There's probably **less anxiety** when it's due to have an observation. It's just part and parcel. We then use that information to **feed into performance management**.

Yes, we have done [formal] coaching and if I'm being perfectly honest that's probably not worked as well as we would want it to, we need to go back and revisit that. We have done the [informal] coaching... and we **might expand it** into a wider federation thing. But the coaching has been helpful particularly when you **tie it in with the lesson observation and the lesson visits**, meeting before and after, and then picking up those bits and pieces. So, yes, we have done the coaching, but we would probably want to develop that more [formally] as time went on'.

Bespoke project outcome: Improved Ofsted rating

The new Ofsted framework and emphasis on the 'broad and balanced' curriculum was also referred to by teachers and leaders, in terms of the need to balance good core/foundational skills (i.e. in reading, writing and maths) with robust wider subject knowledge and teaching. Within this context, some interviewees highlighted that Fast Learning enabled them to overcome this tension, as it was a quick and effective way of revisiting and improving core skills. Fast Learning allowed enough time for teaching and learning to focus on the fuller range of subjects - something that schools will be assessed on under the new Ofsted framework. Other aspects of the NAHT Aspire programme, particularly its key focus on pupil learning, were also thought by teachers to underpin pupil understanding across the curriculum, which would be important for their practice going forwards, as this teacher indicates:

I suppose the teachers, by understanding what the children need, their misconceptions and barriers, using those [NAHT Aspire] strategies hopefully, that will all go together and really support the children in their learning. - *School 8, Teacher*

One senior leader highlighted internal data that was suggesting a narrowing of the gap for Free School Meals pupils – particularly boys who responded well to the competitive aspect of Fast Maths and Reading – recognising that it wouldn't be possible to assess this without SATs results:

I would imagine if we'd had SATs this year, we would have been seeing a marked improvement across the board. - *School 9, Senior leader*

Interviewees were asked about their perceptions of the contribution NAHT Aspire had made to their Ofsted readiness. Achievement Advisers reflected on the wide range of leaders across schools they had worked with, with a new-found confidence to talk about their evaluation, plans and impact to date, with robust evidence of positive outcomes to share. Another commented:

> It's not because we've gone in in an inspectoral way, but we're asking questions that are enabling them to talk about those things, day in day out, when they're with us. So, in a way they've kind of had six rehearsals doing that, on their six development days. And I think that's part of why [recent Ofsted] leadership judgements have been strong and sometimes even slightly ahead of the overall effectiveness judgement that the schools have had. - Achievement Adviser

Leaders explained that the programme had helped them feel better prepared for Ofsted, because of: the data-driven decision-making; more streamlined foci, systems and paperwork with evidence, and the recurring emphasis on pupil learning, rather than the inspection result per se. Leaders suggested that underpinning all of these NAHT Aspire actions and processes was the central focus on the pupils and their learning, first and foremost - which once addressed systematically, aligned to the requirements of Ofsted and would continue after the inspection:

All the things that [NAHT Aspire] do are all the things that we need to do for Ofsted, basically. If we're successful in TLIF, we're successful for Ofsted. So, there's no wastage I suppose. We're not focusing on anything that is not applicable to what our Ofsted visit will be looking at. - *School 3, Middle leader*

Once Ofsted have been, this is not going to change what we're doing or why we're doing it, because these children will still be here'. - *School 2, Senior leader*

Leaders reported feeling more confident about the things they were doing well, with analysis helping to clearly identify targets and improvements. Seeing other schools in their networks improve their Ofsted judgements also encouraged them and increased their confidence.

Having external advisers, leaders and peers visiting their lessons also helped teachers feel more focused on pupil learning, confident and ready for the inspection visit:

Us teachers are more used to having people come in to see us teach. We're just used to having a different adult with us. The children, as well, they're getting more used to adults taking them out and talking to them about their learning. Our times table knowledge is better, plus quick maths recall is better. Our fluency is better so that helps us feel secure about our results and progress. - *School 8, Teacher*

We are more aware of what the children need and what we need to work towards in terms of Ofsted coming in, and we're also focusing more... if we're doing the fluent learning we're focusing more on those really key strands in the national curriculum as well. - *School 7, Teacher*

EdisonLearning project managers provided data on the change in Ofsted ratings of schools. According to their analysis (submitted to DfE, but not confirmed as official MI data), of the 96 participating schools in the NAHT Aspire TLIF programme (November 2017 – March 2020), 54 had been inspected either during the course of their participation on the programme or shortly after completion. The unverified data shows that:

- all 54 inspected schools had started the programme with an Inadequate or Requires Improvement (RI) Ofsted judgement. Of these, 70% had improved their Ofsted judgements for overall effectiveness by at least one grade
- 49 inspected schools started the programme with RI Ofsted judgements. Of these, 67% had secured Good. In two other cases, the judgement improved from RI to Outstanding
- 19 of the 33 schools securing these Good and Outstanding judgements joined the programme with several RI judgements

 all inspected schools that started the programme with Inadequate judgements had secured RI judgements.

The project managers also reported that there were about 30 cohort 1 schools with two years of data following their participation. The KS2 outcome scores for the 'Ofsted improving schools' were claimed to have improved by 14 percentage points over two years.

Of the nine case-study schools taking part in the evaluation over the two cohorts, two had moved from RI to Good, three had remained RI and two of the 2020 cohort were still waiting for their Ofsted inspection that was due in the summer term (subsequently cancelled due to Covid-related school closures). In the remaining two cases, the interviews were conducted before their latest inspection result, so it was not possible to explore their reflections on the process and result further.

The inspection reports of the three schools that remained RI identified some areas of improvement in leadership and teaching and learning since their previous inspection.

Regardless of the judgements, these ratings cannot be directly attributed to the success or otherwise of NAHT Aspire as there are several factors and contextual issues inspectors will have considered on the day. An Ofsted judgement reflects inspectors' assessment of a provider's effectiveness at a point in time, based on an inspection visit and taking account of the range of matters set out in Ofsted's framework and inspection handbook. The inspection report will note whether that rating has improved, declined or remained the same since the last inspection; such a change can provide an indication of whether the school improvement measures a school has taken and/or received in that time have had an effect, or not. However, the frequency, timing and coverage of inspections, the number of overlapping interventions and wider changes between inspections, are among the many reasons why a change in Ofsted ratings alone cannot be used to demonstrate causation or contribution of a single intervention.

Nonetheless, one Achievement Adviser noted that all schools that had improved their Ofsted ratings had one thing in common – all had 'highly effective leaders who knew what they wanted and where they were going, and where they wanted to take the staff'. The case-study evidence suggested that, at the time of the interviews (before their subsequent inspection), leaders were aware that their schools were still on a journey towards Good - regardless of the Ofsted outcome they were on a continuing road of further improvements.

Bespoke project outcome: Enlarged pool of effective leaders based in the area

Evidence from the case-study interviews suggested that leaders perceived they were more effective in their current roles as a result of their participation in the programme (see section 4.3.1 on leadership quality). There were also reported examples of

middle leaders who had been promoted and left their school during the course of the programme, with their interviewed colleagues citing their TLIF-related stepping up as potentially useful leadership experience in their progression. The SWC analyses (see section 4.4) somewhat supported this notion. While the estimated effects on progression were all not statistically significant, participants were slightly more likely to progress to higher leadership levels than non-participants, and this estimated effect was larger three years after baseline than one year after baseline on all participant progression measures. There was no statistically significant difference in progression between all school-staff and a comparison group.

4.3 Findings related to Fund-level outcomes

This section draws on qualitative evidence to present findings on TLIF fund-level outcomes.

4.3.1 Improved leadership quality

Improved quality and distribution of leadership:

- leaders develop generic competencies
- leaders have confidence in their potential impact
- leaders are self-evaluating
- leadership is more distributed

Leaders are perceived to have developed their generic competencies and confidence as a result of the programme.

Perceptional evidence from 2019 and 2020 case-study telephone interviews suggest that the NAHT Aspire programme had improved the competence and confidence of all participant leaders interviewed, in a range of ways and to varying degrees. Senior and middle leaders expressed this in relation to themselves personally and in their perceptions of the outcomes for their fellow leadership team participants. With regards to competence, interviewees gave examples of their increased leadership skills as a result of having new, more effective ways of:

- identifying priorities
- running meetings
- using data
- rolling out projects
- planning and achieving goals with more clarity
- having difficult conversations with staff

- empowering teachers to increase their competence and confidence
- reflecting on and evaluating their leadership
- focusing on learner behaviours as the central issue
- using resources and tools more effectively
- conducting appraisals

One middle leader commented:

I thoroughly enjoyed it. I would recommend it. Honestly, I'm not just saying that. It was a really useful process for us. We all enjoyed it. We've increased in confidence as a leadership team massively. We believe in ourselves. Really good. We enjoyed it from start to finish. - *School 6, Middle leader*

The positive changes that resulted from leaders and teachers' improved use of these skills was evident in interviews – overall, they gave multiple examples of where *'that went well, that's working better'*. Improvements in their skills were linked to increased confidence in their abilities to: take more effective responsibility, instigate positive change, tackle complex issues and use their time more effectively. In addition, leaders and teachers reported experiencing and benefitting from the increased morale, enthusiasm and energy of their colleagues, and witnessing increased pupil engagement and progress – all of which fed into a virtuous cycle of positive changes. Notably, this was despite the continuing complex pressures and demands on them individually, and as a school.

These changes and their impacts also emerged when leaders reflected on their upcoming Ofsted inspections (see section 4.2). Interviews with teachers in 2020 indicated that they also perceived the leadership across the school had improved as a result of the NAHT Aspire strategies and interventions they observed or were involved in – not only as part of the Development Days, but the continued embedding of new practices beyond that.

Leaders, project managers and Achievement Advisers reported that key to this increase in perceived competence and confidence was having someone external offering them: a coherent, fresh approach to leadership; structured time for reflection; a framework and rationale about what/why/how to improve learner behaviours; focused supportive challenge; clarity about their priorities; new leadership tools (e.g. for more effective meetings and learning conversations) to empower staff to take more responsibility, and Achievement Adviser validation of their progress as a result of the tools, approaches and strategies that were making a tangible and observable difference. In the interviews, leaders were able to make direct links between the aspects of the programme and the improvement they had experienced in themselves and others.

The following typical quotes illustrate and encapsulate these findings:

It's given me lots of different tools that I didn't have before in terms of leadership, in terms of how to roll out projects and how to lead meetings. - *School 1, Senior leader*

I now have a robust professional framework for improving teaching and learning that my colleagues appreciate and value, which I didn't have before. - *School 6, Senior leader*

Leaders reported improvements in self-evaluation as a result of NAHT Aspire, although some considered that they had fairly robust systems in place before the programme.

For the leaders who felt their self-evaluation was already fairly robust, their participation in the NAHT Aspire programme further reinforced this strength, as it underpinned the strategies, approaches and tools they were implementing in a more integrated way. Several key resources and approaches were identified as helping leaders improve or refocus their self-evaluation (e.g. learning conversations, coaching, Achievement teams, Venn diagrams, QFL, QFTL) - indicating that the multi-pronged components of the programme helped embed this core focus, as this middle leader describes:

The way that [the programme] works is that self-evaluation is built all the way through, isn't it, so you're constantly evaluating and then making adjustments and then going back to it. So, definitely as a school I think we're becoming a lot better at that because the process is becoming more embedded. - *School 3, Middle Leader*

NAHT Aspire enabled these schools that considered themselves already to be selfevaluating schools to think differently and more deeply about their priorities. One leader commented that the programme had helped them to step back from their data and monitoring and ask:

> Is it telling us anything? Or are we just looking at books just because, are we looking at data just because? It helped [teachers] analyse more forensically what they were trying to achieve and why, and what it will look like when we get there, rather than 'oh we must improve our data'. - *School 4, Senior leader*

Other schools (e.g. School 1 and 8) acknowledged that some staff struggled with self-evaluation, but that the programme helped those staff to use data more

effectively as a source of evidence to test out and explore their assumptions and assessments. One senior leader felt more confident that, as a staff group, their data decision-making had improved because of their better triangulation of their evidence base and assessment relating to quality for learning (using QFTL resources). There was evidence that the programme not only improved data/evaluation at an individual pupil/class level, but that as an SLT they were looking for patterns and threads across the school to identify strengths and weaknesses at the wider scale to have a whole-school focus on certain issues.

Interviewees stated that the programme had enabled their schools to identify the positives, rather than always focusing on the negatives, enabling schools to *'learn from what's already going well in one area and transferring learning to weaker areas'*. Having an externally validated approach to quality assure their self-evaluation was also important for some, giving them confidence in their self-evaluation abilities and decision-making based on that.

Overall, evidence from interviews suggested that Achievement Adviser 'critical friend' support, as well as the tools, was crucial in enabling leaders to identify and address where weaknesses in self-evaluation lay, e.g. aligning and focusing data systems and processes, so that those schools felt more confident in their rationalised processes going forwards:

Through working with [Achievement Adviser]... we've seen improvements and perhaps we're more accurate now with our judgements when we're evaluating ourselves... So this has allowed us to be – still critical, we're certainly not [RAG rated] green for everything - but see the good things that we're doing as well. - *School 7, Middle leader*

Leadership was perceived to be more distributed across the school with staff 'stepping up'.

Across both senior and middle leaders in the case-study schools, there was agreement that the programme had resulted in a widening of leadership responsibility and roles – not only for the participants themselves, but in nearly all cases, this had 'filtered down' or 'spread out' to some or all of the teaching staff to varying extents.

The Network Days meant that two middle leaders were directly involved and saw themselves differently as key leaders, attending training and working strategically alongside the head and senior leaders:

> I was quite flattered, because it's a school improvement thing, so I felt like I was able to come and be part of making the school better. And learning not just for myself, but for helping other

members of staff as well, just being the middle leader. It was quite nice actually, stepping up and feeling more responsible to do that. - *School 5, Middle leader*

Taking their new responsibilities and projects into school and implementing change over the year increased this sense of 'stepping up' and resulted in increased confidence. Lesson visits, Fast Learning, learning conversations and Achievement Teams required new structures, systems and processes to be put in place, which further cemented these roles and responsibilities.

In so doing, some heads and senior leaders 'released power', taking pressure from themselves: *'it used to all fall to me, and my door would be forever like a revolving door, whereas now there is less of that'*. This allowed them to focus on more strategic priorities. Middle leaders were given more responsibility by working more closely with the senior team, then working more independently (with support from the Achievement Adviser or senior staff as needed), and more collaboratively with their colleagues

Leaders in the early stages of this process were positive about the changes distributed leadership was bringing, and could see how this process would continue to develop in future:

As a SMT we were able to see that we can't do it all, and we do need to future-proof ourselves and train up. We're involving our middle leaders much more in things, which means that they then involve team leaders much more in things, etc, and it kind of spreads out from there. - *School 3, Senior leader*

In terms of distribution of leadership, enabling others to lead and to deliver the vision, that's been at the heart of TLIF... I can let other people do that now, because they've got the right tools and I have a window into their thought processes and their reasoning...because we're both working to the same ends – we're using the same framework. - *School 6, Senior leader*

4.3.2 Improved teaching quality

The following outcomes relate to improved teacher quality and are taken from the different elements of Tables 2, 4 and 5, pertaining to teacher practice and quality. The case-study findings address a number of these bulleted outcomes, so are outlined and presented thematically below (in bold).

- Teachers develop pedagogical competencies
- Teachers have confidence in their potential impact

- Teachers are confident to talk about teaching and learning and continuous improvement
- Changes in practice in terms of better/more impactful day-to-day teaching
- Sustainability effective teaching strategies embedded into schools' operating systems

Leaders and teachers reported that there were several positive outcomes for teachers resulting from the programme, including increased confidence and pedagogical competencies.

In addition to leader interviews, the 2020 case-study data collection round included one teacher from each of the four case-study schools. All four had participated in lesson visits, Achievement Teams, Fast Learning and, in some cases, data monitoring with Venn diagrams as part of the Development Days and subsequent implementation. Leaders and teachers were asked about their perceptions of the impact the programme had had on teachers and these findings are summarised below, based on the intended outcomes from the logic model (Appendix A).

As outlined above, teachers' pedagogical competencies were believed to have developed through Fast Learning approaches and Achievement Teams, where colleagues shared and suggested solution-focused approaches to issues brought by their peers. Evidence from the interviews with teachers, leaders and Achievement Advisers suggested that teachers' pedagogical competencies were perceived, in nearly every case reported, to have developed – leading to more impactful teaching. This was principally as a result of focusing on pupils' learning behaviours as the starting point for change, with tools to then identify the actions teachers needed to take to bring about progress – supported by the QFTL for guidance. These points are summed up by the following typical quotes:

The thing I liked about it as well, was how we've reflected upon [our teaching] and how we've gone, that didn't quite work, what can we do?... because we've reflected, it's enabled us to change and refine and improve what we've done... [At Achievement team meetings], other people have good ideas themselves and they bring those to the table. - *School 6, Teacher*

It's really good CPD, because they [teachers] can take those approaches and apply them in other ways – if children don't have the foundational knowledge then that conceptual stuff is really not going to happen. So, it's little things like that – it's definitely helped the teachers, their understanding of why we do certain things... and how it's going to impact on the children. - *School 7, Middle leader* Leaders and teachers perceived that 'teachers had confidence in their potential impact' and that teachers were confident to talk about teaching and learning and continuous improvement - as a result of their developing competencies, immediate results from Fast Learning, lesson visits (including the structured learning conversation format) and Achievement Teams – as outlined above. Both of these changes emerged strongly from the interviews with leaders, teachers and Achievement Advisers. Some teachers and leaders reported that this was particularly significant following the negative effect of RI judgements on staff confidence and morale in the preceding period:

Getting that confidence back for the staff that we'd lost. With everything that had happened, we feel that that really gave us the boost that we were looking for. - *School 1, Senior leader*

The only slightly less positive comment was from a senior leader who pointed out that improvements in teachers' confidence in his school were less apparent compared to the senior management team who were more directly involved in Network Days and worked more closely with the Achievement Adviser. However, this leader still acknowledged that lesson visits and ATMs had resulted in teachers growing in confidence. The four teachers interviewed all stated that their confidence and enjoyment of the programme had made a positive difference to their practice and the outcomes for pupils.

As discussed above, Fast Learning was seen as highly effective as it was easy for teachers to implement, adaptable across a number of areas of the curriculum and highly engaging and impactful for pupils. For these reasons, this effective teaching strategy was embedded into the schools' operating systems, as the 10 minutes a day required could be planned into timetables with relative ease.

4.3.3 School culture and staff satisfaction

Although EdisonLearning did not identify project specific outcomes related to school culture and staff satisfaction (a fund-level outcome), the project did, nonetheless, achieve these outcomes indirectly through its various activities.

The programme had raised morale and improved the culture of the school, by increasing the confidence and abilities of teachers to support each other.

In addition to the school outcomes outlined above, most leaders and teachers expressed the morale-raising impacts of NAHT Aspire. Some cited examples indicating that the ethos of the school has shifted to one of more open discussion and trust. This engendered a collaborative and collegial sense of shared responsibility across the teaching staff who could now see they were 'part of the bigger picture'. Achievement Teams, for example, were frequently reported as a mechanism for collaboration where there was a shared focusing on pupils' learning rather than the teacher's performance, which then positively shifted morale:

I think the most important change has been a **culture shift** to focusing almost exclusively on learning – dare I say it – whereas before the culture shift was on compliance [to the Head's previous autocratic approaches] – do this and the boss will be OK with you... There isn't the cliff-edge, heart-in-the-mouth feeling now when the lesson observation visits happen, which is a really good thing. In terms of **morale**, yes [it's improved]. I'm now able to happily have my lunch in the staff room, because it had become a bit 'me and you', 'us and them'. - *School 6, Senior leader*

This perception was corroborated by the teacher in the school:

A few people used to grumble, but generally teachers are now incredibly supportive, we've taken on the measures that we need to do. So yes, I think staff morale has been pretty good. - *School 6, Teacher*

Trust and openness emerged as being key to the culture change in the school

This aspect of culture change was directly and specifically attributed to the NAHT Aspire interventions themselves. This was also noted by leaders and teachers and reflected in the wider observations of the Achievement Advisers and project managers too:

> That change of culture [from] top-down to being much more distributed ownership, and that's through a lot of these things, because something like Fast Learning could be led by the maths lead – [or they get] someone else to lead it... A lot of what happens is you get rid of some of the suspicion, and there's much more **openness to actually trust** each other and discuss, because schools have been under so much pressure. - *Achievement Adviser*

[ATMs and lesson visits] started to quite quickly shift culture in the schools from a more inspectorial culture to one where professional development was integral to the way in which the school was starting to work... I think [they] flip the culture in a school - getting teachers together in a trusting atmosphere to share how they deal with certain learners. - *Project Manager* The change in culture, trust and openness that leaders and teachers experienced – specifically the opportunity to talk with their colleagues and share ideas as part of improving and growing practice – meant that staff did not want to return to the 'hierarchical autocratic' model of the past.

4.3.4 CPD quality and staff engagement in CPD

Three of the outcomes from EdisonLearning's logic model (in Tables 5 and 7) relate to CPD quality and staff engagement in CPD. These are bulleted below, followed by an analysis of the case-study evidence relating to these outcomes.

- CPD barriers removed
- More demand for CPD
- Improved capacity for delivering CPD leading to sustainable change
- Systematic approach to teacher development

As outlined previously, the Achievement Adviser's role was key in providing experienced, high-quality external training and support that was sustained over a year to enable the 'practical, manageable, high immediate impact' interventions to be embedded.

The programme was adaptable to the needs of the school and complemented other CPD or projects.

A key aspect of the quality of NAHT Aspire's CPD was its ability to be flexible and work well alongside other initiatives already taking place in the school. In some cases, it was described as even enhancing the effectiveness of other interventions the school engaged with. The emphasis on self-evaluation and critical thinking that the NAHT Aspire programme engendered, enabled leaders and teachers to amplify the effectiveness and 'quality control' of other CPD/interventions schools were also involved with:

> If I do buy in to too many things at once it just creates overload... phonics [CPD] was so specific to teaching phonics, as was the mastery programme for mathematics, but [NAHT Aspire enables us to ask] how effective are you at the Living Phonics programme, how effective are you with the mastery programme for mathematics? So there was that overarching quality control mechanism in many respects... it helped us to really evaluate whether or not what we're doing is working. - *School 8, Senior leader*

NAHT Aspire provided a 'really joined-up system' of CPD.

The programme incorporated, complemented and enhanced schools' existing staff development processes that were already working well - guided by the Achievement Adviser. In one school for example, an intervention was shared through the mechanisms of the ATMs and their pre-existing lesson study process - enabling teachers to observe, work and talk together, then senior leaders measured the impact of the intervention through the lesson visits.

In other case-study schools, the underpinning pedagogical principles of the NAHT Aspire programme (e.g. Fast Learning, ATMs) could be applied across other curricula, subjects and a range of classroom situations. The impact of the CPD also went beyond the classroom, as one senior leader commented:

It's become part of our whole CPD programme. We don't have staff meetings where we just... we have CPD staff meetings. - *School 9, Senior leader*

The quality of NAHT Aspire CPD was consistently highly regarded. This was due to its easy integration, flexibility and adaptability that meant it fitted well into most schools' existing operating systems where these were working well. Where these existing systems (e.g.of meetings, data use, self-evaluating) were not effective, the programme offered simple structures and tools to establish, embed and make them more effective going forwards. Across the case-study schools, there was strong evidence that NAHT Aspire had indeed improved capacity for delivering CPD, leading to sustainable change, in multiple ways.

The project removed barriers to CPD, improving capacity and creating more demand for CPD, leading to sustainable change.

Evidence from leaders and teachers also strongly indicated that NAHT Aspire did remove barriers to CPD, firstly through leaders and teachers benefitting directly from the high-quality, supportive training without the cost of multiple external/ad hoc courses. Secondly, by developing and releasing the leadership potential of middle leaders, the wider staff benefitted from the existing expertise already within the school, thus improving the capacity of staff across the school to engage in CPD. This effectively catalysed the ongoing school improvement process by also empowering class teachers (and support staff in some cases) to positively change. Thirdly, it developed a collaborative culture of internal problem-solving and mutual, selfsustaining support, which was perceived to be considerably more effective than previous ad hoc courses: *'it means that we don't have to go elsewhere - we can use the strengths that we have as individuals'*.

The internal/whole school nature of the NAHT Aspire programme was said by one leader to have also encouraged teachers that were usually reticent of CPD, to

engage. The key to this was the incremental, developmental and supportive nature of the adviser and the approaches, coupled with and the support of their fellow colleagues, which '*knocked down some teacher's defensive barriers*' to CPD. Several leaders and teachers reported an increase in staff (including TAs) reading more, asking critical questions, researching issues when they could not find the answers and discussing alternative perspectives/solutions in new ways – now always asking, '*what impact will this have on pupils' learning, where is the evidence for that?*' - as a result of NAHT Aspire playing a key role in improving the empowering, problem-solving ethos of the staff. Three schools acknowledged that their school was still on a journey and that some staff were taking longer to make this shift, but overall the culture towards CPD had shifted – '*everybody is so on board with trying to make sure that our school is improving and having better outcomes for the pupils*'.

The teachers interviewed in cohort 2 also spoke of the transformational benefits of the programme, in shifting the culture towards CPD:

It's very much helping people to shift their attitudes towards CPD. I think that's what will help, because obviously you have different ways of teaching reading and strategies and maths and they change with time. But I do think that having that change of attitude that we can all support each other; we all have expertise in some way – that won't change over time once you've got that. No matter what happens with the curriculum, it will fit. - *School 9, Teacher*

Whatever new challenges a school and staff face in future, the overriding sense from interviewees was there will be something in the NAHT Aspire framework or tools to help them tackle it themselves internally, collaboratively and holistically. NAHT Aspire has increased the demand for continual self-improvement and from the evidence gathered here, schools are able to supply this effectively from their increased, sustainable internal resources.

For these reasons, the evidence suggests that by removing the barriers to CPD, staff across the school were able to increase their capacity and appetite for CPD in ways more likely to be embedded in everyday practices. In turn, these embedded practices would indicate the potential of the CPD to lead to sustainable change for the schools beyond the end of the project (further discussed in section 5).

4.3.5 Pupil outcomes and indicators of pupil attainment

The two bullet points below are the intended outcome and impact listed in Table 6 relating to pupil outcomes and pupil attainment, followed by a thematic presentation of the evidence from interviews pertaining to these.

- Improvements in pupils' progress in terms of foundational skills in maths, reading or transcription
- Improved pupil attainment (an assessment of pupil attainment outcomes using the NPD was removed from the evaluation due to Covid-19)

Perceived improvements in pupils' progress were predominately identified in relation to foundational skills in maths, reading, spelling or transcription which were widely reported.

These comments were typical:

The first time I did it and what their scores are now, it's amazing. It promotes a really nice atmosphere in the classroom. And their faces when they improve their scores – it's wonderful to see. - *School 5, Middle leader*

It's worked, it has really worked. You could see from the first day, even in their fluency books that they've got, you can see from the first day how much progress they've made. And their reading as well, a lot of the children... every day they're beating their personal best. It's evidence that they're making progress, which is obviously what everyone wants to see. - *School 8, Teacher*

The views of *all* interviewees were that Fast Learning was consistently having a very positive impact on pupils' progress – particularly in areas that pupils tend to find uninteresting, such as times tables, spellings and handwriting.

...fast learning has re-ignited a lot of the children's enthusiasm for learning their times tables and given them an engaging way to practise their spellings as well. - *School 9, Teacher*

Without exception, the leaders and teachers interviewed repeatedly spoke about pupils' increased pride, confidence, focus, sense of achievement, self-evaluation, motivation, excitement, and success as a result of these 10-minute Fast Learning exercises several times a week. They described ipsative assessment (competing against themselves and seeing their own progress) as being key. Whilst some interviewees commented that all pupils benefited and made progress regardless of ability, others gave specific examples of where underachieving boys, anxious girls and lower-achieving pupils were able to make particularly noteworthy strides in their learning behaviours and results.

Perceptions of outcomes were highly positive for all groups of pupils.

New-to-English and less able children were reported to be the *'ones with the greatest capacity for improving'* and increasing their confidence, which happened

quickly. More able children were compared to 'elite athlete's training' by the Achievement Adviser where Fast Learning enabled them to maintain their level of speed of recall with consistent practise *'the same as Usain Bolt when he was setting his world records'*. Fast Learning was repeatedly said to change behaviours, particularly for boys who were reported to engage particularly well. Prior to the intervention, boys tended to associate being *'really good with finishing first rather than with accuracy'*. Personal bests (PBs) were applauded based on accuracy, which meant they slowed down and improved too. Boys were also reported to now *'love reading'* as a direct result of daily Fast Reading in at least two schools. Fast Maths was also stated as complementing mastery maths, enabling pupils to *'think about diving deeper and thinking, 'well how can I apply this?''* This middle leader encapsulated what was commonly reported:

> Certainly, the spelling and the maths in terms of the Fast Learning, all the data are showing that they're making good progress... The progress is faster right across all year groups. The same with the spelling programme. They're all performing at a higher level. - *School 3, Middle leader*

Although improved results were recorded in classes taking part in the interventions, evidenced by in-class progress scores of Fast Learning and teacher assessments, it was too early to see these translated into Key Stage attainment outcomes. In addition, it would be difficult to attribute any positive changes directly to NAHT Aspire due to other complementary initiatives taking place – as a number of leaders acknowledged. The project manager also anticipated that, even for cohort 1 schools, the 2019 Key Stage 2 SATs impact measures would be affected by programme timing. For example, schools starting the programme in April would have only had one month to make a difference to May Key Stage outcomes, so longer-term data would be needed for this to be measurable. Unfortunately, due to Covid-related school closures and cancellation of the 2020 SATs, this element of the analysis will now not be possible for cohort 2 schools and will not be included in the 2021 final report.

Nonetheless, Achievement Advisers did provide examples of schools they had worked with where Fast Learning had resulted in *'profound impacts'* on Key Stage 1 results because *'pupils' speed of reading and comprehension increased, because they were no longer spending so long just decoding the text'*. One school introduced Fast Learning to Year 4 in preparation for the multiplication screening check. Within two weeks, results went from 33 per cent of pupils passing the check, up to 80 per cent. Pupils were less anxious about the check when they saw how quickly they improved using Fast Learning and found it so much fun, they were requesting practice at home – another indicator of the motivational impact of the interventions. In another school, paired Fast Reading was introduced and reported to promote a love of reading, because it encouraged daily reading. Pupils choose a book and 'shared a passion with their classmate, read them a book that they enjoyed, ask questions of each other, [had] fun with it... exposing them to new vocabulary'.

In terms of Key Stage 2 attainment, the project manager explained that Fast Learning is designed for Year 3 onwards to embed foundational skills, so that it was unlikely that a school would see the results impacting on Key Stage 2 results until two or three years' time. Teachers concurred:

> If it's used as a Year 6 catch-up intervention, it's probably a bit late for those children. Knowing their tables early on in the school without error will mean Year 6 teachers are not plugging those gaps and can teach the curriculum in depth as they need to. That's across the school... Again, if our children love reading, as they move up the school, they're more likely to be able to access a reading paper in Year 6. And I do think that's happening. - *School 7, Middle leader*

Teachers also believed the *'challenging yourself mindset'* and beating their personal bests positively impacted pupils' sense of achievement, enjoyment of learning, ownership of learning, and independent research.

The 'non-fear-of-failing environment' this quick intervention created then had knockon effects across other aspects of their learning and behaviour at school – and led to an overall improvement in mental health and wellbeing, claimed one teacher. The changing behaviours that resulted from Fast Learning and individual- or classfocused interventions were observed by leaders and teachers as pupils becoming more independent learners and overcame hurdles.

Emerging evidence on pupil outcome data is promising.

Although the analysis of pupil outcome data is no longer part of this evaluation due to the Covid-19 pandemic, and there are no pupil outcome measures collected as a part of the MI data, there was however emerging evidence about Key Stage 2 outcomes from project managers and advisers. Data was provided by the EdisonLearning project managers (as part of their submission to DfE) This evidence was not validated by DfE or the evaluation team), which indicated that *'rates of improvement against attainment measures were more than double national averages'*. Specifically, EdisonLearning's analysis found that:

• 83 of the 96 schools had Key Stage 2 data that could be used to compare performance pre- and post-programme commencement

- these schools achieved an average six percentage point increase in Expected Standard in reading, writing and maths in their first set of results following participation on the programme – double the national average in 2018 and six times the national average in 2019
- the 32 Ofsted improving schools (see above) in this group achieved an average 8 percentage point increase in Expected Standard in reading, writing and maths
- the 14 Ofsted improving schools with two sets of data since programme participation achieved an average 14 percentage point increase, between 2017–2019, three and a half times the national rate of improvement
- average progress scores for Ofsted improving schools moved from negative in reading, writing and maths pre–programme to positive during and postprogramme.

Beyond Fast Learning, leaders, teachers and advisers also identified that Achievement Team Meetings (ATMs) – and lesson visits to some extent - enabled specific gaps in pupils' learning to be identified.

The biggest impact came from the solutions that colleagues and teachers collaboratively came up with themselves at the ATMs (see also Vignette 1 above and Vignette 3 below), based on their shared expertise and experience – enabling accountability, action, monitoring and review of the progress individual pupils then made:

I think where we were and where we are now, it's a million miles away and obviously the [NAHT Aspire] is a part of that. We identify these children, we do look at SEND, we look at Looked After Children, we look at English as an Additional Language. All those children also would be benefiting from the achievement team meetings, so those are the sorts of children that we would be taking as well as the children who are falling behind. - *School 5, Teacher*

Below, Vignette 3 describes how one pupil benefitted from the ATM process.

Vignette 3 - Impact of Achievement Team Meetings on a pupil

The middle leader in School 3 gave an example of how an ATM enabled a teacher to think through the support a pupil needed to better engage at school:

There was one example last year in Year 3 where the teacher had a pupil and she couldn't really engage him at all, and the teacher was really struggling. She hadn't really formed a relationship with him if I'm being honest. And at that Achievement Team meeting the sorts of advice she was being given in terms of how to form a relationship with the child, simple things like having a meet and greet session with him in the morning.

She was somebody that was new to teaching and hadn't really had the opportunity to think it through. The answers were all within her, as a classic sort of coaching thing, but she hadn't had the time to articulate them really. So, having the Achievement Team meeting was a good time to do that and having the support of her colleagues chipping in with one or two ideas. She came up with it herself in the end, but the support of her colleagues was crucial.

He's like a different child now in terms of his engagement with this teacher. He's much more positive about school, much keener to come in, yes generally a much better attitude I guess towards school life.

4.4 Fund-level impacts

This section explores the extent to which the NAHT Aspire project impacted on teacher retention and progression, firstly through analysis of teacher outcomes in the SWC. It then explores participants' perceptions of the impact of the project on teacher retention and progression, through analysis of qualitative data to illuminate the overall findings from the secondary data analysis.

4.4.1 Retention and progression analyses

As outlined previously, the NAHT Aspire project intended to achieve both teacherlevel and school-level impacts. Therefore, this analysis was conducted on NAHT Aspire participants and a matched comparison sample of teachers (teacher-level impacts), and on all teachers from NAHT Aspire schools and matched comparison schools (whole-school impacts). As such, the findings are reported in two sections; one set exploring the impact the NAHT Aspire project had on teacher-level retention and progression, and the other set using school-level data to explore the impact NAHT Aspire had on school-level retention and progression. The analysis uses the set of NAHT Aspire participants compared to a group of nonparticipants in non-NAHT Aspire schools, matched on a range of key characteristics (see Appendix D) to estimate what counterfactual retention and progression rates might have been with and without the NAHT Aspire project. Teacher retention was analysed in terms of:

- retention in the state-funded sector in England
- retention in the school
- retention in the same LA
- retention in challenging schools¹¹

Teacher progression was analysed in terms of:

- progression in the state-funded sector in England
- progression in the school
- progression in the same LA
- progression in challenging schools.

We use the descriptor 'teacher-level' to describe analysis of all project participants, irrespective of their level of seniority.

4.4.2 Teacher-level findings

Retention in the state-funded sector in England

Table 8: Difference in the estimated rate of retention in state-funded teachingin England between treatment and comparison teachers

	Treatment teachers	Comparison teachers	Difference	Statistically significant ?
Estimated retention rate in state-funded teaching 1 year after baseline* (%)	91.5	88.6	2.9	Yes
Number of teachers	1376	8696		
Estimated retention rate in state-funded teaching	86.0	82.9	3.1	Yes

¹¹ For the purposes of this analysis, 'challenging' schools are defined as schools rated by Ofsted as 'requires improvement' or 'inadequate'. A teacher is defined as remaining in a challenging school if they either stayed within the school they were in at baseline, or moved to another school which was rated 'requires improvement' or 'inadequate'

	Treatment teachers	Comparison teachers	Difference	Statistically significant ?
2 years after baseline (%)				
Number of teachers	1363	8567		
Estimated retention rate in state-funded teaching 3 years after baseline (%)	82.3	79.2	3.0	Yes
Number of teachers	904	5141		

Note: Estimated retention rates are the average predicted retention rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted retention rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

Analysis presented in Table 8 shows that the NAHT Aspire project is associated with a statistically significant higher rate of retention within the state-funded teaching profession, with treatment teachers between 2.9 and 3.1 percentage points more likely to be retained in teaching one, two and three years after the baseline data was collected.

This suggests that the NAHT Aspire project had a positive impact on teacher retention in the state-funded sector. However, the presence of a significant difference just one year after baseline, and the fact that the estimated difference appears to be of roughly consistent magnitude one, two and three years after baseline, suggests that this estimated effect may be somewhat overstated. As the project recruited teachers at the different times in the year and the analysis does not observe specific end-dates of the treatment for each participant, it is likely that many participants had either received minimal training or were still enrolled in the training when the census data was collected and the impact on retention estimated at one year after baseline. Furthermore, any unobserved variables which affected both selection into the participant group and also affected retention rates would lead to systematic differences between the participant and non-participant group and could not have been included in the matching. Thus, while the results overall do suggest that retention for participant teachers may have been improved by the project, an estimated difference of 2.9 percentage points within one year of baseline is likely to be somewhat overstated. Similar limitations apply to the statistically significant findings on all the teacher-level retention measures reported below.

Retention in the school

	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated retention rate in the same school 1 year after baseline* (%)	92.6	90.2	2.4	Yes
Number of teachers	1091	7066		
Estimated retention rate in the same school 2 years after baseline (%)	86.6	84.8	1.8	No
Number of teachers	1083	6993		
Estimated retention rate in the same school 3 years after baseline (%)	81.2	79.5	1.7	No
Number of teachers	704	4126		

Table 9: Difference in the estimated rate of retention in the same schoolbetween treatment and comparison teachers

Note: Estimated retention rates are the average predicted retention rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted retention rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

Analysis presented in Table 9 shows that the NAHT Aspire project is associated with a statistically significant higher rate of retention within the same school one year after baseline, with treatment teachers 2.4 percentage points more likely to retained in the same school. This difference was smaller and not statistically significant two and three years after baseline. These results could suggest that the NAHT Aspire project had a positive impact on teacher retention in the same school in the short term, but the effect may be overstated due to the limitations of the analysis.

Retention in the same local authority

	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated retention rate in the same LAD 1 year after baseline* (%)	95.9	94.5	1.5	Yes
Number of teachers	1091	7066		
Estimated retention rate in the same LAD 2 years after baseline (%)	92.1	91.3	0.8	No
Number of teachers	1083	6993		
Estimated retention rate in the same LAD 3 years after baseline (%)	88.3	88.0	0.3	No
Number of teachers	704	4126		

Table 10: Difference in the estimated rate of retention in the same local authority district (LAD) between treatment and comparison teachers

Note: Estimated retention rates are the average predicted retention rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted retention rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

Analysis presented in Table 10 shows that the NAHT Aspire project is associated with a statistically significant higher rate of retention within the same LAD one year after baseline, with treatment teachers 1.5 percentage points more likely to be retained. However, this estimated difference was estimated to be smaller and not statistically significant two and three years after baseline. This may suggest that the NAHT Aspire project had a positive impact on teacher retention in the same LAD in the short term, but the effect may be overstated due to the limitations of the analysis.

Retention in challenging schools

	Treatment teachers	Comparison teachers	Difference	Statistically significant ?
Estimated retention rate in challenging schools 1 year after baseline* (%)	94.6	92.6	2.1	Yes
Number of teachers	1084	7020		
Estimated retention rate in challenging schools 2 years after baseline (%)	90.7	88.7	2.0	Yes
Number of teachers	1075	6916		
Estimated retention rate in challenging schools 3 years after baseline (%)	87.0	85.0	2.0	No
Number of teachers	699	4045		

Table 11: Difference in the estimated rate of retention in challenging schools¹² between treatment and comparison teachers

Note: Estimated retention rates are the average predicted retention rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted retention rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

Analysis presented in Table 11 shows that the NAHT Aspire project is associated with a statistically significant higher rate of retention in challenging schools in year one and two after baseline, with treatment teachers between 2.0-2.1 percentage points more likely to be retained. This suggests that the NAHT Aspire project had a positive impact on teacher retention in challenging schools, which was estimated to be roughly stable over time, however this may be somewhat overstated due to limitations in the analysis.

In summary, the NAHT Aspire project may have helped retain teachers in the profession, although the estimated magnitude of this effect is likely to be somewhat

⁹ For the purposes of this analysis, 'challenging' schools are defined as schools rated by Ofsted as 'requires improvement' or 'inadequate'. A teacher is defined as remaining in a challenging school if they either stayed within the school they were in at baseline, or moved to another school which was rated 'requires improvement' or 'inadequate'.

overstated. The qualitative evidence to support these findings is discussed below.

Progression in the state-funded sector in England

Progression rates in the following tables are defined as the proportion of teachers who moved from either a classroom teacher to a middle/senior leader role, or a middle leader role to a senior leader role within one, two, and three years of baseline.

	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in state-funded teaching 1 year after baseline (%)	2.6	3.4	-0.8	No
Number of teachers	869	5717		
Estimated progression rate in state-funded teaching 2 years after baseline (%)	5.0	4.9	0.1	No
Number of teachers	865	5658		
Estimated progression rate in state-funded teaching 3 years after baseline (%)	7.2	6.1	1.1	No
Number of teachers	549	3314		

Table 12: Difference in the estimated rate of progression in state-funded teaching in England between treatment and comparison teachers

Note: Estimated progression rates are the average predicted progression rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The estimates shown in Table 12 show that there were no significant differences in the progression rates of teachers in the state-funded schools between treatment and comparison teachers, one to three years after baseline. However, the progression rate three years after baseline is notably higher than one year after baseline. This may indicate that the project has indeed improved participant progression rates,

though statistical power is insufficient to conclude that the estimates are statistically significant.

Progression in the school

	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in the same school 1 year after baseline* (%)	2.3	2.7	-0.4	No
Number of teachers	803	5149		
Estimated progression rate in the same school 2 years after baseline (%)	4.4	4.0	0.4	No
Number of teachers	747	4796		
Estimated progression rate in the same school 3 years after baseline (%)	6.6	4.9	1.7	No
Number of teachers	448	2633		

Table 13: Difference in the estimated rate of progression in the same schoolbetween treatment and comparison teachers

Note: Estimated progression rates are the average predicted progression rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis shown in Table 13 shows that there were no significant differences in the progression rates of teachers in the same school between treatment and comparison teachers, one to three years after baseline. Similarly to Table 12, the estimated magnitude of the difference three years after baseline is considerably higher than one year after baseline which could suggest that progression rates were improved by the project, though statistical power is insufficient to conclude that the estimates are statistically significant.

Progression in the same local authority

	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in the same LAD 1 year after baseline* (%)	2.8	3.0	-0.3	No
Number of teachers	832	5385		
Estimated progression rate in the same LAD 2 years after baseline (%)	4.8	4.4	0.4	No
Number of teachers	796	5151		
Estimated progression rate in the same LAD 3 years after baseline (%)	7.1	5.4	1.7	No
Number of teachers	486	2905		

Table 14: Difference in the estimated rate of progression in the same localauthority district (LAD) between treatment and comparison teachers

Note: Estimated progression rates are the average predicted progression rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis shown in Table 14 shows that there were no significant differences in the progression rates of teachers in the same LAD between treatment and comparison teachers, one to three years after baseline. Similarly to Table 13, the estimated magnitude of the difference three years after baseline is considerably higher than one year after baseline which could suggest that progression rates were improved by the project, though statistical power is insufficient to conclude that the estimates are statistically significant.

Progression in challenging schools

	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in challenging schools 1 year after baseline* (%)	2.3	3.0	-0.7	No
Number of teachers	814	5252		
Estimated progression rate in challenging schools 2 years after baseline (%)	4.9	4.3	0.6	No
Number of teachers	775	4956		
Estimated progression rate in challenging schools 3 years after baseline (%)	7.2	5.5	1.7	No
Number of teachers	476	2760		

Table 15: Difference in the estimated rate of progression in challengingschools¹³ between treatment and comparison teachers

Note: Estimated progression rates are the average predicted progression rates from a logistic regression model for treatment and comparison teachers, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of this difference is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis shown in Table 15 shows that there were no significant differences in the progression rates of teachers in challenging schools between treatment and comparison teachers, one to three years after baseline. Similarly to Table 14, the estimated magnitude of the difference three years after baseline is considerably higher than one year after baseline which could suggest that progression rates were improved by the project, though statistical power is insufficient to conclude that the

¹³ For the purposes of this analysis, 'challenging' schools are defined as schools rated by Ofsted as 'requires improvement' or 'inadequate'. A teacher is defined as progressing in a challenging school if they move to a middle/senior leadership position from a classroom teaching position or a senior leadership position from a middle leadership position *and* either stayed in their baseline school or moved to a challenging school.

estimates are statistically significant.

In summary, from the evidence it cannot be concluded that the NAHT Aspire project has had a positive effect on teacher progression. It is worth considering that the project was solely for primary schools. It is possible within primary schools that there were several opportunities for additional responsibilities that might not be captured within the SWC data, as they are not rewarded with Teaching and Learning responsibility (TLR) points. For example, taking on subject co-ordination.

4.4.3 School-level findings

The following sections explore the findings from the SWC secondary analysis on retention at the school level (school-level impacts).

Retention in the state-funded sector in England

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated retention rate in state-funded teaching 2 years <u>before</u> baseline*	89.8	89.8	0.0	-	-
Estimated retention rate in state-funded teaching 1 year <u>before</u> baseline	91.0	90.0	1.0	-	-
Estimated retention rate in state-funded teaching 1 year after baseline	90.3	90.5	-0.2	-0.7	No
Estimated retention rate in state-funded teaching 2 years after baseline	91.4	90.8	0.5	0.0	No
Estimated retention rate in state-funded teaching 3 years after baseline	92.5	92.2	0.3	-0.2	No
Number of schools	97	842	-	-	-

Table 16: Difference in rate of retention in state-funded teaching in England

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis displayed in Table 16 does not demonstrate any significant differences in retention rate within state-funded sector between treatment and comparison schools.

Retention in the school

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated retention rate in the same school 2 years <u>before</u> baseline*	90.3	90.1	0.2	-	-
Estimated retention rate in the same school 1 year <u>before</u> baseline	90.9	91.2	-0.3	-	-
Estimated retention rate in the same school 1 year after baseline	92.1	91.4	0.6	0.7	No
Estimated retention rate in the same school 2 years after baseline	92.3	93.1	-0.8	-0.8	No
Estimated retention rate in the same school 3 years after baseline	94.5	95.0	-0.4	-0.4	No
Number of schools	97	842	-	-	-

Table 17: Difference in rate of retention in the school

Note: Estimated retention rates are the average predicted retention rates from a logistic mixed-effects regression model for treatment and comparison schools, controlling for observed characteristics. The difference in average predicted retention rates is the marginal effect. Statistical significance of these

differences is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis displayed in Table 17 does not demonstrate any significant differences in retention rate within the same school between treatment and comparison schools.

Retention in the same LAD

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated retention rate in the same LA 2 years <u>before</u> baseline*	93.9	94.2	-0.3	-	-
Estimated retention rate in in the same LA 1 year <u>before</u> baseline	94.4	94.9	-0.5	-	-
Estimated retention rate in in the same LA 1 year after baseline	95.9	94.9	0.9	1.3	No
Estimated retention rate in in the same LA 2 years after baseline	95.0	96.0	-0.9	-0.5	No
Estimated retention rate in in the same LA 3 years after baseline	96.7	97.0	-0.3	0.1	No
Number of schools	97	842	-	-	-

Table 18: Difference in rate of retention in the same LA

Note: Estimated retention rates are the average predicted retention rates from a logistic mixed-effects regression model for treatment and comparison schools, controlling for observed characteristics. The difference in average predicted retention rates is the marginal effect. Statistical significance of these

differences is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis displayed in Table 18 does not demonstrate any significant differences in retention rate within the same LAD between treatment and comparison schools.

Retention in challenging schools

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated retention rate in challenging schools 2 years <u>before</u> baseline*	93.8	93.8	0.0	-	-
Estimated retention rate in challenging schools 1 year <u>before</u> baseline	94.4	94.5	-0.1	-	-
Estimated retention rate in challenging schools 1 year after baseline	94.8	94.9	0.0	0.0	No
Estimated retention rate in challenging schools 2 years after baseline	95.1	95.8	-0.7	-0.6	No
Estimated retention rate in challenging schools 3 years after baseline	96.6	96.9	-0.3	-0.3	No
Number of schools	97	842	-	-	-

Table 19: Difference in rate of retention in challenging schools¹⁴

Note: Estimated retention rates are the average predicted retention rates from a logistic mixed-effects regression model for treatment and comparison schools, controlling for observed characteristics. The difference in average predicted retention rates is the marginal effect. Statistical significance of these

¹⁴ For the purposes of this analysis, challenging schools are defined as schools rated by Ofsted as 'requires improvement' or 'inadequate'. A teacher is defined as remaining in a challenging school if they either stay within the same school, or they moved to a different school which was rated 'requires improvement' or 'inadequate'.

differences is assessed at the five per cent level. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis displayed in Table 19 does not demonstrate any significant differences in retention rate within challenging schools between treatment and comparison schools.

In summary, there is no evidence to suggest that the NAHT Aspire had an impact on retention at the school level. The non-significant findings on retention at the school level contrasts with the significant findings at the teacher level. The possible reasons for this are discussed below in sections 4.4.4.

The following sections explore the findings from the SWC secondary analysis on progression at the school level (school-level impacts).

Progression in the state-funded sector in England

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated progression rate in state-funded teaching 2 years <u>before</u> baseline*	2.0	2.2	-0.2	-	-
Estimated progression rate in state-funded teaching 1 year <u>before</u> baseline	1.6	1.9	-0.4	-	-
Estimated progression rate in state-funded teaching 1 year after baseline	1.7	1.7	-0.1	0.2	No
Estimated progression rate in state-funded	2.1	1.7	0.3	0.6	No

Table 20: Difference in rate of progression in state-funded teaching in England

teaching 2 years after baseline					
Estimated progression rate in state-funded teaching 3 years after baseline	1.0	1.3	-0.3	0.0	No
Number of schools	96	841	-	-	-

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis shown in Table 20 does not demonstrate any significant differences in progression rate in state-funded teaching.

Progression in the school

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated progression rate in the same school 2 years <u>before</u> baseline*	1.5	1.8	-0.3	-	-
Estimated progression rate in the same school 1 year <u>before</u> baseline	1.3	1.5	-0.1	-	-
Estimated progression rate in the same school 1 year after baseline	1.3	1.3	0.0	0.2	No
Estimated progression rate in	1.6	1.3	0.2	0.5	No

Table 21: Difference in rate of progression in the school

Number of schools	95	833	-	-	-
Estimated progression rate in the same school 3 years after baseline	0.6	1.0	-0.3	-0.1	No
the same school 2 years after baseline					

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis shown in Table 21 does not demonstrate any significant differences in progression rate in the school.

Progression in the same LAD

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated progression rate in the same LA 2 years <u>before</u> baseline*	1.6	2.0	-0.3	-	-
Estimated progression rate in in the same LA 1 year <u>before</u> baseline	1.5	1.7	-0.1	-	-
Estimated progression rate in in the same LA 1 year after baseline	1.5	1.5	0.0	0.3	No
Estimated progression rate in in the same LA 2 years after baseline	1.8	1.5	0.3	0.6	No

Estimated progression rate in in the same LA 3 years after baseline	0.8	1.1	-0.3	-0.1	No
Number of schools	96	837	-	-	-

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis shown in Table 22 does not demonstrate any significant differences in progression rate in the LAD.

Progression in challenging schools

	Treatment group	Comparison group	Difference	Difference -in- difference	Statistically significant?
Estimated progression rate in challenging schools 2 years <u>before</u> baseline*	1.6	1.9	-0.3	-	-
Estimated progression rate in challenging schools 1 year <u>before</u> baseline	1.5	1.6	-0.1	-	-
Estimated progression rate in challenging schools 1 year after baseline	1.4	1.4	0.0	0.2	No

Table 23: Difference in rate of progression in challenging schools¹⁵

¹⁵ For the purposes of this analysis, challenging schools are defined as schools rated by Ofsted as 'requires improvement' or 'inadequate'. A teacher is defined as remaining in a challenging school if they either stay within the same school, or they moved to a different school which was rated 'requires improvement' or 'inadequate'.

Number of schools	96	838	-	-	-
Estimated progression rate in challenging schools 3 years after baseline	0.8	1.1	-0.3	-0.1	No
Estimated progression rate in challenging schools 2 years after baseline	1.7	1.5	0.3	0.5	No

*The baseline year was defined as the census year prior to recruitment, so this will not be the same for all teachers or for all schools. The SWC occurs in November every year so teachers recruited in Dec 2017, May 2018 and Dec 2018 would have baseline years of 2017, 2017 and 2018 respectively.

The analysis shown in Table 23 does not demonstrate any significant differences in progression rate in challenging schools.

In overall summary of the SWC analysis, the teacher-level findings suggests that the **NAHT Aspire programme has contributed positively to teacher retention rates in the state-funded sector, in school, in the LAD and in challenging schools**. However, the presence of a significant difference just one year after baseline indicates that there may have been **unobserved systematic differences between the participant and non-participant teachers and schools** at baseline which could not be included in the matching. In addition, as teachers/schools were recruited and completed at different times of the year it is **likely that some participants had either received minimal training or were still enrolled in the training when the census data was collected**. There were no significant differences in any of the school-level retention rates between treatment and control groups. This further supports the interpretation that the **teacher-level retention rates, may be somewhat overstated**.

The **findings in relation to progression are complex**. No significant differences were found at either teacher level or school level. At the teacher level there was a non-significant but consistent pattern to the progression estimates which appears to suggest an effect of the project that grows more positive over the three observed years.

The qualitative findings in the next section help to explore and contextualise the SWC findings.

4.4.4 Qualitative findings on teacher progression and retention

The qualitative interviews also gathered evidence on participants' views on their career progression and intentions. This interview evidence relating to these outcomes was analysed and is discussed here thematically to provide additional insight and explanation for the overall SWC analysis findings.

Leaders and teachers reported that, as a result of the programme, they were more confident in their current role, but this did not necessarily mean that they were motivated to progress.

Participating middle leaders were very positive about the development opportunity and responsibilities they had taken on as part of the programme, and some commented on how this might inform their future career plans, even though this was still an early stage for them:

> As I've stepped up to take on a bit more responsibility to look at how the school can improve in that sense, I did feel like being part of management is something I could do one day. - *School 5, Middle leader*

Of the nine middle leaders interviewed, two had *stepped down* from their previous middle leader role or formal additional responsibilities since completing the programme, stating personal and work-life balance reasons, rather than anything NAHT Aspire-related. While both decided they preferred their class teacher role, they were definite that the programme had given them a lot more confidence and empowered them to develop their practice and possibly consider more responsibility or promotion in future. This finding may help to explain the teacher-level findings that while participants were more likely than the comparison group to be retained in the English state schools, the same school, LAD or in challenging schools (Tables 8-11), but were not statistically significantly more likely to progress (Tables 12-15).

Both middle leaders had continued to step up informally, taking on responsibility for areas of the curriculum. This informal progression is unlikely to have met the requirements for registering on the SWC. For example, one middle leader described her enjoyment and renewed enthusiasm for reading-related interventions and developments, and was clear that she would continue to develop and support this area within the school, noting:

Actually, I do look around for jobs if there's anything that says something like reading need or Reading Recovery, [I'm

interested, but I'm continuing] to support those children that require that reading [in this school]. - *School 9, Middle leader*

Some middle leaders reported feeling more empowered to progress as a result of NAHT Aspire:

[Thinking about applying for promotions in the past] I might possibly have backed off or backed down, thinking no, I don't think I could possibly do this. [NAHT Aspire] has given me a lot more confidence and empowerment and again just knowing you've been involved in setting up something that's going to be very good for the school. - *School 9, Middle leader*

For most, though, at this stage in their school's journey, middle leaders were actively involved and focused on implementing, embedding and improving the learning for pupils – that was the consistent message and goal uniting them and their colleagues. Their increased satisfaction, enthusiasm, motivation and confidence in doing this collaboratively was their mission at the time. This may contribute to the explanation for the teacher-level retention patterns.

Most leaders were clear that the training had supported them in the short term and were more focused on the pupils' and schools' progression rather than their own individual career ambitions (as also indicated in Tables 12-15). These combined findings are encapsulated well by this middle leader:

I've got *no aspiration or intention of progressing* from the job that I do now... I'm thinking it's *not about me*, ultimately. What this has helped me do is get the *best for the school*. My sole job is ensuring that this school is the best that it can be and the children who come here are the best that they can be. So, if anything it has made me sharpen up me in terms of getting that, but *it hasn't made me want to go on and do something else or different. - School 8, Middle leader (emphasis added)*

When senior leaders were asked about their future career plans, they were generally more focused on getting their school to a good judgement in the next Ofsted inspection and sustaining that improvement, rather than individually moving on beyond the school to develop their careers – again, helping to explain the SWC data patterns outlined above. Overall, they felt that the programme had improved their skills and strategies for equipping the school, staff and pupils for a more positive future.

Senior leaders also tended to highlight how other senior and middle leader colleagues were progressing as a result:

I think it's opened [middle leaders'] horizons to leadership opportunities. She may not have seen herself necessarily as a senior leader in that way before, but I think she definitely does now, having had to lead lots of different projects and cascade them across. - *School 3, Senior leader*

Senior leaders at two schools reported that NAHT Aspire was partly instrumental in a middle leaders' promotion during the programme – within their school and to another school locally (although this pattern wasn't statistically significant overall in Tables 13 and 14). More commonly, leaders attributed colleagues leaving, being promoted, or replaced partway through the programme to inevitable staff turnover in schools (as suggested by the lack of significance in Tables 20-23). These moves and possible progressions in future for themselves and others were seen as positive outcomes for NAHT Aspire, rather than a loss to the school:

I know that whatever school we end up in, we would take all that [NAHT Aspire] goodness with us, because it's just damn good stuff and it does change schools for the better. - *School 8, Senior leader*

Other qualitative evidence (see Section 4.3.3) suggests that the culture of the whole school was positively impacted by the project, leading to higher levels of commitment and motivation for individual teachers who were more likely to be retained in the same school, same LA or other English state school, and also to progress.

More time is needed to fully develop and hone leadership skills and impact staff retention rates.

There were examples of schools struggling to find time systematically fit in all meetings as regularly as intended, but again, this was about timing and more often a problem associated with networks starting in the autumn or winter terms when there were limited opportunities for introducing a new schedule of activities in an already congested planning cycle (see section 3.3.3). In terms of a systematic approach to teacher development being established, most leaders and teachers agreed that the CPD had facilitated this through the regular ATMs and lesson visits which were, in most cases, being formally scheduled into timetables going forwards.

Timing was an important aspect identified in the qualitative evidence. As an Achievement Adviser noted, a year's programme is insufficient for leaders to fully demonstrate the impact of their newly developing skills and experience acquired. She advised participants looking to progress to continue honing their leadership skills using the QFL so that they could build more evidence of sustained impact. factor In terms of retention in the profession, the participants' outcomes discussed above in relation to increased job satisfaction, motivation, confidence and renewed enthusiasm are associated in the literature (Allen and Sims, 2017¹⁶; Coldwell, 2017¹⁷) with increased commitment to the profession, and potentially retention.

In summary, the qualitative findings provide some support for the teacher-level SWC findings of improved teacher retention and no significant impact on progression. There was not sufficient evidence from interviews to explain the patterns in the school-level retention and progression analyses.

4.5 Interpretation of outcomes and impacts

Overall, the NAHT Aspire project achieved its intended outcomes. There is considerable qualitative evidence that the project improved participating leaders' competence and confidence in their leadership skills, and teachers' confidence and effectiveness in their classroom practice. NAHT Aspire has equipped leaders and teachers with a range of strategies and tools that were perceived to have positively impacted pupil outcomes, particularly around foundational skills. There is evidence that several linked aspects of the programme contribute to a more trusting, collaborative, problem-solving culture in schools, with increased motivation and satisfaction from leaders and teachers stepping up and supporting each other. As a result, CPD culture has shifted to a belief that staff have the internal expertise and tools to find solutions to new challenges alongside their colleagues, without the need for external courses.

The SWC analyses indicate that the project has had some positive impact on the TLIF fund-level retention impacts, particularly at participant level, however the analyses have key limitations that indicate that caution is needed in interpreting the findings. The SWC analyses indicates improved retention at teacher level, and this is supported by the qualitative data. However, these SWC findings may be inflated due to systematic differences between the treatment and comparison samples at baseline that are not accounted for in the analyses. The finding of no statistically significant evidence of progression at the teacher level are supported by the qualitative data. The interview findings highlighted that participants were refocusing their efforts on improving pupil learning and were committed to embedding their improved systems and approaches, rather than contemplating a future elsewhere. In addition, the interview analysis suggested some of the teacherlevel progression reported in primary schools as a result of the project, related to taking responsibilities for areas of the curriculum (reading for example), that would

¹⁶ Allen, R., & Sims, S. (2017). Improving Science Teacher Retention: do National STEM Learning Network professional development courses keep science teachers in the classroom. *Wellcome Trust/Education Datalab*.

¹⁷ Coldwell, M. (2017). Exploring the influence of professional development on teacher careers: A path model approach. *Teaching and teacher education*, *61*, 189-198.

not necessarily be captured by the SWC. The qualitative data does not provide an explanation for the school-level SWC findings.

Due to the Covid-19 pandemic, Key Stage attainment data was unavailable to extend the analysis of pupil impacts. EdisonLearning's data, in addition to the interviewees' perceptions on the outcomes for pupils, suggests that this would have added to the evidence that NAHT Aspire met its intended benefits for pupils.

The consistently high-quality, tailored support of the Achievement Adviser was delivered at a moderate level of intensity - through just six Network and Development Days per school, underpinned by a comprehensive range of resources – and received a low level of funding compared to other TLIF projects. The overall positive outcomes and impacts from this programme coupled with the moderate intensity and low cost per school indicates that the NAHT Aspire programme is a strong model.

5 Sustainability

The evaluation of NAHT Aspire included a focus on the sustainability of the new ways of working, new learning and outcomes in schools, which had come about through participants' involvement with the project. For their part, the leaders and teachers interviewed certainly felt that they had embedded, and would sustain, the approaches gained through the programme:

What I think is we've got a core strength here, that it will become the spine of our school, if you like. Those skills that we've learned will never leave now. They're part and parcel of what we would do going forward. They would be our ethos and our policy and practice really. We will do our monitoring via lesson studies, coaching, learning conversations – that will be what we do. - School 7, Senior leader

As summarised in the sections above, there is considerable strong evidence that the programme has – without exception in terms of the case studies - successfully equipped participating leaders and teachers with a growing repertoire of leadership and teaching skills that were enabling them to support each other in their shared vision of improving outcomes for pupils now and into the future. Across the board, these quick-fix, high-impact changes were seen as useful additions or preferable to their previous ways of working, so once easily embedded, they were likely be sustained, because of their 'instant effectiveness'.

These approaches and strategies have contributed directly and significantly to a change in culture amongst the staff in many cases – but also to a change in learning behaviours of pupils who are the ultimate beneficiaries of this whole school improvement. However, these do not appear to be changes limited to a 'halo effect' in the short term. Leaders and teachers spoke consistently about their intentions to return to their toolbox of NAHT Aspire frameworks and resources to continually stimulate and challenge their practice, systems and future planning – whether strategically for their school or their own professional development. Aspects of the programme had also been integrated into School Development Plans, appraisal processes and meeting schedules, ensuring the continuation of these. This indicated that the impacts had gained sufficient momentum to be self-sustaining and last well beyond the lifetime of the funding.

Whilst most leaders felt confident to continue with the impetus created, several also stated the need for more time and preferably more support to fully embed activities and strengthen the benefits. Nonetheless, they were confident that advisers were at the end of the phone after the end of the programme if needed:

There are bits that we haven't yet been able to put into place that we're still excited about doing. It obviously required a lot of change and a lot of activity in quite a short amount of time, so we haven't been able to fit it all in, but it's still stuff that we're going, 'oh we've still got that to do!' and that's going to be really good. - School 2, Senior leader

Three of the nine schools had opted to fund some additional Development Days with the Achievement Adviser from their budgets – or employ their services as a school improvement partner, to ensure ongoing support for further embedding and deepening of the work. These schools then also had access to the resources and approaches of the other two NAHT Aspire strands that normally form part of the three-year programme (Learning Environment and Student and Family Supports) – which were reported to also be supportive for the schools' ongoing journeys.

The support, resources, and interventions of the one-year, three-stranded programme are robust, but also flexible enough to meet the individual priorities of schools facing multiple pressures. In particular, the collaborative, supportive and empowering aspects of the programme left participants with the assured belief that they could problem-solve and find solutions internally, with a set of critical questions and methods they could apply to future challenges, thus negating the need for future ad-hoc CPD courses. An example of this was the new Ofsted framework and its focus on the broader curriculum. Schools in cohort 2 mentioned how they were able to address these new demands with some initial support from their adviser and the quality frameworks and other NAHT Aspire resources to guide them through.

There is also evidence that participating schools are working with other schools in their federation, MAT and locality – and expanding aspects to Key Stage 3 in middle schools – to share their learning from the programme, thus disseminating, contributing and widening the zone of impact.

It has shown me that should our federation ever expand, either going down the MAT route or just taking more people into the federation, that we have the capacity – I have the capacity – to do that. But the TLIF thing is also something that we can bring in and develop alongside schools. I think the TLIF thing would enable us – if we were asked to – to help develop and support other schools who might be struggling a bit. - *School 8, Senior leader*

Taken together, this evidence suggested that the impact of this programme was great – particularly considering the low cost and moderate intensity of the programme.

6 Evaluation of the EdisonLearning project Theory of Change

We have already outlined the overwhelmingly positive effects of the intervention in the sections above (see section 4). However, in order to evaluate the Theory of Change (ToC) and logic model, it is important to also consider the activities and target outputs, and whether these were delivered as expected (see Appendix A).

From all the evidence presented, they were, with a clear link between intentions and actual delivery. The combination of supportive external expertise over the year and a robust set of practical, effective strategies and approaches that could be implemented easily and flexibly, meant that the programme successfully achieved its intended outcomes as outlined in the ToC and met the needs of the participating schools. The only minor issue was that the formal coaching model with leaders did not work as intended (see sections 3.2, 4.1.1 and coaching vignette 2), but it was effective when delivered informally through the lesson visits/learning conversations. Engagement, enjoyment and satisfaction was high throughout, so we can fully validate the ToC developed by the NAHT Aspire team.

It is clear that leaders, teachers and pupils experienced a range of significant benefits from the programme, with the overall 'process chain' underpinned by increasing trust, collaboration, skills and confidence. The quality of leadership, teaching and learning appears to have improved as a result.

While the project was successful in achieving its intended outcomes and the SWC analyses indicated a positive impact on participant retention, there was no statistically significant impact on retention at school level, nor on progression at teacher or school level.

7 Learning about effective CPD for schools in challenging circumstances

7.1 Recruiting and engaging schools

There were no challenges to the recruitment of schools, due in part to the trusted NAHT branding and the tried and tested model of their existing three-year delivery model. A waiting list of schools wanting to participate indicated that demand is high for this form of whole school CPD. All schools engaged well throughout the programme. In a small number of cases, external factors led to one or two of the original 96 schools having to withdraw, but these were quickly replaced.

7.2 Characteristics of effective CPD

Coe (2020) drew together a list of practical implications for the design of CPD. Although the review focussed on subject-specific CPD, it is based on the broad congruence of evidence found in reviews about the characteristics of effective CPD both within a subject-specific and wider context, that support changes in teachers' classroom practice which, in turn, are likely to lead to substantive gains in student learning. These are set out in Table 24, alongside lists of the key activities of the NAHT Aspire project, which together contribute to the positive outcomes that are indicative of effective CPD that align with Coe's characteristics.

This shows that NAHT Aspire activities and resources operate as a coherently interlinked package that addresses multiple aspects/characteristics of effective CPD for teachers. Each of the key NAHT Aspire elements complement, reinforce and support each of the other elements of the programme in a holistic way, thus strengthening the mechanisms and processes of change that are catalysed by these activities.

Table 24: Practical summary of the evidence about effective CPD (Coe, 2020)

CPD that aims to support the kinds of changes in teachers' classroom practice that are likely to lead to substantive gains in student learning should:

1. Focus on promoting the teacher skills, knowledge and behaviours that are best evidenced as determining student learning. Such content should be appropriately sequenced and differentiated to match the needs of participants.

- Fast Learning competitive, ipsative assessment with personal bests (competing against themselves and seeing their own progress), adaptable across a range of topics and curriculum subjects.
- Achievement Team meetings focused, collaborative problem-solving meetings with peers to identify interventions to support specific learner issues.
- Data-driven decision making including Venn diagrams: visual data on pupil progress, enabling teachers to quickly identify pupils requiring targeted intervention.
- Lesson visits with power themes and other helpful tools to identify and address key learning outcomes for each observed lesson.
- Learning conversations support professional dialogue/informal coaching as part of lesson visits to self-evaluate teaching and learning.
- 2. Have sufficient duration (two terms) and frequency (fortnightly) to enable changes to be embedded.
 - Three terms of intervention with one Achievement Adviser-led leader Network Day and one whole-school Development Day each term.
 - Programme of in-school activities to implement approaches over the three terms initially led by Achievement Adviser and embedded by middle leaders across year groups and classes.
- 3. Give participants opportunities to:
- a. be presented with new ideas, knowledge, research evidence and practices
 - Development Days with Achievement Advisers modelling Fast Learning, lesson visits, ATMs, data-driven decision making (Venn diagrams).
 - Middle leaders leading activities in school.
 - Focused peer support solution-focused ATMs, lesson visits, learning conversations.
 - Supporting resources e.g. QFTL, RAG self-evaluation tools, power themes providing clear frameworks, structures, focus and support
- b. reflect on and discuss that input in ways that surface and challenge their existing beliefs, theories and practices
 - Focused peer support solution-focused ATMs, lesson visits, learning conversations.

- Supporting resources e.g. QFTL, RAG self-evaluation tools, power themes providing clear frameworks, structures, focus and support.
- c. see examples of new practices/materials/ideas modelled by experts

See 3a)

d. experiment with guided changes in their practice that are consistent with these challenging new ideas and their own context

See 3a)

- e. receive feedback and coaching from experts in those practices, on an ongoing basis
 - Focused peer support solution-focused ATMs, lesson visits, learning conversations, built into meeting schedules (every 3 weeks).
 - Appraisal processes embedding tools and approaches above.
- f. evaluate, review and regulate their own learning
 - Supporting resources e.g. QFTL, RAG self-evaluation tools, power themes providing clear frameworks, structures, focus and support.
 - Focused peer support solution-focused ATMs, lesson visits, learning conversations, built into meeting schedules (every 3 weeks).
 - Appraisal processes embedding tools and approaches above.
- 4. Create/require an environment where:
- a. participants can collaborate with their peers to support, challenge and explore
- b. school leadership promotes a culture of trust and continuous professional learning
- c. teachers believe they can and need to be better than they are
- d. the process and aims of the CPD are aligned with the wider context (e.g. accountability)
 - Supporting resources e.g. QFTL, RAG self-evaluation tools, power themes providing clear frameworks, structures, focus and support.
 - Focused peer support solution-focused ATMs, lesson visits, learning conversations, built into meeting schedules (every 3 weeks).
 - Appraisal processes embedding tools and approaches above.

Source: Coe, R., (2020) The Case for Subject-Specific CPD. Report for the Institute of Physics January 2020

In addition, we can identify key features of the NAHT Aspire project that appeared to lead to positive outcomes indicative of effective CPD, which are not included in

Coe's list. Below is a list of the additional aspects of the NAHT Aspire programme that relate to leadership development and a whole school approach, given the Coe list in Table 3 is more teacher-specific:

- active leader participation from start to finish and beyond
- Network Days for senior and middle leaders providing opportunities to work alongside and share experience and expertise with other leaders in local RI schools facing similar challenges
- strategic leader support and resources (e.g. QFL), led by the Achievement Adviser
- Development Days in schools for middle leaders stepping up to lead implementation and embedding new practices in school
- coaching for leaders, led by advisers as part of lesson visits and learning conversations, rather than as a formal standalone feature
- classroom teachers working more closely with middle leaders stepping up and leading/collaborating
- inclusion of TAs in ATMs and other activities as part of the whole-school approach
 - integrated strategies and approaches with links between senior and middle leaders and teacher processes e.g. lesson visits, appraisals, meeting cycles

7.3 Summary

Based on two years of data from qualitative interviews with project managers, advisers, and participating leaders and teachers, there is strong evidence that the NAHT Aspire was a universally positive project that led to its intended outcomes related to whole-school improvement for target primary (and middle) schools and their pupils in challenging circumstances. While there is some evidence of positive impacts on the TLIF fund-level impacts of teacher retention, limitations in the analyses mean that that caution is needed in making firm claims. Project recruitment and retention levels suggest that there is further demand for funded, sustainable CPD of this type, as well as SWC analysis of teacher retention and progression data.

Key to the success of NAHT Aspire's three-term model is: the structured, integrated programme; underpinning resources; highly valued, expert adviser support, and accessible 'quick win', sustainable interventions that rapidly show positive impacts. The support, resources and interventions are flexible to meet the individual needs and priorities of schools facing multiple pressures. Together, they catalysed a change in whole-school culture by increasing trust, collaboration, and confidence

across and between leaders and teachers – based on a shared vision and clear plans for improving pupil learning.

The main hurdle to maximising the programme's impact was the timing of the delivery. Starting the first Network and Development Days in April/May would enable schools to build-in the changes to lesson and meeting timetables for the following September, smoothing the implementation process and enabling the NAHT Aspire project to achieve even more effective outcomes in future.

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Appendix A: EdisonLearning NAHT Aspire Logic Model

Rationale and Evidence

Underpinned by being multifaceted (Bryk, 2010), developing distributed leadership (O'Shaughnessy *et al.*, 2007) and through building in exploration of theory/rationale, modelling, practicing new skills and peer coaching (Joyce & Showers, 2002). The track record of NAHT Aspire in relation to building a collegial working environment, leadership capacity and confidence is evidenced in the NAHT Aspire pilot evaluation by Derby University: many of the schools on the programme have seen NAHT Aspire as a transformative experience. "It has changed the way the school sees itself, children's behaviour and the confidence levels of many staff to have control over and responsibility for their work" (Neary *et al.*, 2015:87).

Project activities	Outputs	Outcomes	Impacts: Schools
 Network Days Development Days Achievement Adviser support → Coaching Fast Learning 	Recruitment: 96 primary schools 192 HTs/SLs 192 MLs 830 class teachers Reach: 20,000-25,000 primary pupils	 Leaders: Leaders develop generic competencies and have greater confidence in their potential impact Leaders are self-evaluating Leadership is more distributed across the school with staff 'stepping up' (Middle) leaders are motivated to progress Teachers: Teachers develop pedagogical competencies 	 Improved teacher retention and progression Increased pupil attainment and progress
NAHT Aspire web resources	Delivery: 144 Network Days 576 Development Days	 Teachers have confidence in their potential impact Teachers are confident to talk about teaching and learning and continuous improvement 	Impacts: Region Improved CPD offer (quality/
	Geographical spread measure:	 Changes in practice in terms of better/more impactful day to day teaching Schools (including other staff): Improved Changes in practice in terms of better/more impactful day to day teaching 	availability) Increased demand for CPD Higher percentage
	from priority areas Retention measure: Recruit the best candidates and engage them throughout so that	 Data used more effectively to target intervention CPD barriers removed, more demand for CPD Systematic approach to teacher development Staff retention and progression Improved progression and retention of effective teachers and senior leaders 	of participating schools judged 'good' or better Improved social mobility
	95% of schools complete the programme Satisfaction measure:	 Effects of improved senior leader/teacher quality School self-evaluation is more rigorous Coaching for and by leaders is established within the school Leadership is more distributed 	 Increased capacity to deliver CPD Increased demand for CP
	80% of participants rate the programme as good or above overall (end of programme internal survey)	 Sustainability Effective teaching strategies embedded into schools' operating systems Pupils: 	Enlarged pool of effective leaders based in the area
		 Improvements in pupils' progress in terms of Foundational skills in maths, reading or transcription Improved pupil attainment 	

Contextual issues

- Specific needs of individual schools and participants; Prior knowledge, experience, beliefs and attitudes of participants
- School readiness and capacity for change

Appendix B: Sampling strategy

Five cohort 1 schools and four cohort 2 schools were purposively selected as case-study schools, from a longlist supplied by EdisonLearning in 2019 and 2020 respectively. All schools had completed or were near the end of their three-term programme at the time of interviewing in spring 2019 and 2020.

Each of the nine case-study schools was part of a different network. Other characteristics used to inform the selection process to ensure that the sample was balanced overall, included:

- school type (Community, MAT, Free school, etc)
- school size (numbers of pupils on roll and numbers of staff)
- Ofsted rating (Requires Improvement, Inadequate)
- progress scores
- schools with different proportions of Free School Meals (FSM)

In 2019, interviews were undertaken with senior and middle leaders from the five cohort 1 schools. The named senior and middle leader participants from each of the selected schools were contacted to take part, first by email then follow up phone calls. Attempts were made to gain agreement to participate in a telephone interview from one senior leader and one middle leader from each of the selected schools. If consent was not granted, another school from that network was selected and participants contacted. This process continued until an overall sample of five schools from five geographically distinct networks had agreed to take part.

Due to difficulties securing interviews with the intended balance of a senior leader and middle leader from five case-study schools, the achieved sample included six senior leaders and four middle leaders. A second senior leader in one school replaced a middle leader interview in another school that could not be arranged (10 school interviews).

In 2020, the sampling approach was changed to include the perspectives of teachers. Four case-study schools were selected, with leaders and teachers contacted using the same approach as in 2019. The achieved sample included one senior leader, one middle leader and one classroom teacher from each of the four schools (12 school interviews).

In both years, two Achievement Advisers were interviewed as well as the project managers.

Appendix C: Analysis of Management Information for the Teaching and Leadership Innovation Fund: Edison Learning

Introduction

The Teaching and Leadership Innovation Fund (TLIF) was a DfE fund through which 10 providers offered support to schools in a variety of areas from behaviour management to phonics and STEM teaching. The aim of the fund was to create and develop a sustainable market for high-quality Continuous Professional Development (CPD). This is a summary of Management Information (MI) data submitted by all ten providers receiving TLIF funding and **does not** assess project impact. The data was submitted in February 2020 and covers the schools and participants recruited, as indicated by the providers. Comparable national figures in this report are based on the 2018 School Workforce Census covering teaching staff in state-funded schools, and Ofsted as at the most recent inspection. The 2018 School Workforce Census was chosen in order to align with the most schools across programme cohorts between 2017 and 2020. The school level analysis refers to all schools that were recruited by providers to participate in the project, including those that withdrew. Schools may have been recruited by more than one provider and participants may have been registered for more than one project.

Targets: Background

Each provider had a number of Key Performance Indicators (KPIs). These were broken down into three different categories:

- **geography**: whether specific areas were targeted by providers (e.g. regional targets, Opportunity Areas, priority areas) and whether particular schools should be targeted by providers (e.g. based on Ofsted rating)
- schools: the target number of schools
- participants: the target number of participants

All providers had a geography target and either a participant or a school target, but not necessarily both.

In the context of the TLIF evaluation, a priority area is defined as Achieving Excellence Areas (AEAs) 5 or 6 (Opportunity Areas fall within this category), and a priority school is defined as a school with an Ofsted rating of Requires improvement (Ofsted grade 3) Or Inadequate (Ofsted grade 4).

Note: there are some discrepancies between the overall numbers from providers and those in the data set sent to us. The provider numbers cannot be broken down in school/area type etc. so analysis will not be conducted on this data, however headline figures will be presented where available.

Targets: Breakdown

Edison Learning delivered the NAHT Aspire programme, a whole-school upskilling project targeted at Middle and Senior leaders. The aim of the programme was to improve teaching and leadership standards in challenging areas. Edison Learning had the following KPI targets:

Geography Level:

- 100% of schools were to be recruited from priority areas
- 70% of participants were to come from priority schools
- The programme did not recruit from specific regions

School Level:

- The programme aimed to recruit a minimum of 96 schools
- The programme was aimed at primary schools

Note: Because of the timing of a school leaving the programme, DfE agreed to a reduction in the target number of schools to 95.

Participant Level:

- A minimum of 1214 participants were to be recruited during the programme.
- The roles were to be split as follows: 192 senior leaders, 192 middle leaders and 830 teachers

Total school numbers

A total of 98 schools were recruited by EDT. However, removing schools where participants withdrew reduces this to a total of 96 schools. The initial target was 96 schools, however a revised target of 95 was agreed by DfE.

100% of schools recruited were from priority areas in line with the target.

Total participant numbers

The total number of teachers that participated in the course was 1421. 8 teachers withdrew, leaving 1413 participants who completed the course, exceeding the target of 1214.

Note: Edison Learning's own data puts the number of participants at 1415.

Of the participants that completed the programme, 90% were from priority schools. The target was 70%.

Schools by Phase

Of all Edison Learning participant schools (including withdrawals):

- 94% of schools were primary schools,
- 5% were secondary schools,
- 1% were special schools.

Edison Learning's target was to recruit from Primary schools only.

Schools by Region

Edison Learning did not target specific regions, and recruited schools in seven of the eight RSC Regions. No schools were recruited from South-West England.

Of all schools recruited by Edison Learning (including withdrawals):

- 31% were located in Lancashire and West Yorkshire,
- 20% in East Midlands and the Humber,
- 15% in East of England and North East London,
- 15% in South Central and North West London,
- 9% in the West Midlands,
- 5% in South East and South London,
- and 4% in the North of England.

Schools by AEA Category

AEA categories are DfE classifications of Local Authority Districts (LADs) by educational performance and capacity to improve, introduced in 2016. It splits areas into six categories from "Strong" Category 1 areas to "Weak" Category 6 areas.

Including withdrawals, Edison Learning only recruited schools from AEA Categories 5 and 6, in line with their target of 100% of schools from priority areas.

Schools by Index of Multiple Deprivation Decile

The Index of Multiple Deprivation (IMD) is a "neighbourhood" measure of deprivation produced by the Ministry of Housing, Communities and Local Government. Each neighbourhood is placed into a decile with decile 1 containing the most deprived areas and decile 10 containing the least deprived.

Edison Learning recruited from more deprived areas with 36% of schools recruited in the most deprived areas (decile 1).

Participants by role

Roles were provided in TLIF Management Information as free text and matched to a standardised leadership level. Below these have been compared to national figures taken from the 2018 School Workforce Census Publication.

Edison Learning recruited participants from all teaching and leadership levels as intended. Including withdrawals:

- 269 Middle Leaders were recruited, passing the target of 192.
- 172 Senior Leaders and 102 Headteachers were recruited. The target was for 192 Senior Leaders.
- 877 Classroom Teachers were recruited, exceeding the target of 830.
- A higher proportion of Classroom Teachers were recruited compared to the national value, with 62% recruited vs 57% nationally.

Appendix D: SWC matching and comparison group construction

Data sources

The main data source used for the retention and progression analysis was the School Workforce Census (SWC). The SWC has been collected annually on the first Thursday of November since 2010 and it observes teaching staff and their characteristics from all statesector schools in England. The key teacher characteristics recorded in the SWC and used for the analysis comprised gender, age, qualification date and role, while key school characteristics comprised school phase, type and region.

Each teacher in the SWC is assigned a unique identifier, which enables analysis of the same individual over multiple censuses. This allows observation of key pieces of information about teachers' careers, such as whether they leave state-sector teaching, move school/ area, or progress into a more senior role.

The SWC records the school in which each teacher is employed, meaning it is also possible to identify teachers who move to different schools, LAs and regions.¹⁸ However, since the SWC does not include teachers in private sector schools or schools outside of England, any teachers who move to one of those schools will appear to have left teaching, even though, in reality, they may not have.

The data quality and response rates to the SWC are very high, so the data has good coverage and few gaps. However, it has some gaps due to schools not submitting returns or individual teachers missing from submitted returns, so to minimise the influence of errors and data gaps, and improve the reliability of the retention outcomes, records were imputed where gaps or errors were evident.¹⁹ While this is unlikely to have completely eliminated all instances of SWC data gaps it is unlikely to affect the interpretation of the findings as they are very likely to affect treatment teachers/ schools in a similar way to comparison teachers/ schools.

¹⁸ Teachers may have contracts in multiple schools, but the file that we used for this evaluation contains one record per teacher per year of the 'main school' that a teacher is working in. The school changes that we observe are therefore changes in the 'main school', as recorded in the SWC.

¹⁹ Cases where data gaps are obvious include the observations in which a teacher is not recorded in a school in a year after which the SWC records them as having started in a particular role. For example, if the SWC shows a particular teacher is working in a school in the 2017 census year and they are recorded as having started in their current role in the 2016 census year, where they have no SWC record, then the missing record for 2016 is imputed. In these cases, it is assumed they were teaching in the same school as in 2017, and their time-variant characteristics are imputed as appropriate (reducing their observed age, experience, etc. by one year). School-level characteristics and teacher-level characteristics that do not vary by time (i.e. gender, ethnicity), are set to their observed value in 2017. This imputation affects relatively few records and does not apply to any records in which role start date is not observed.

In addition to the teacher-level variables, school-level data was used for the analysis including region, phase, Ofsted rating and Achieving Excellence Area (AEA) category, all data which is published by the DfE.²⁰

The final data source consisted of the management information (MI) data collected by the TLIF providers on the teachers participating in each project, and collated by DfE. The MI data observes teachers' personal details, participation in TLIF projects, along with the provider, the name of the school in which the teacher participated in the training and, for some projects, the training start and end dates.

Each teacher in the MI data was linked to their SWC records using their name, Teacher Reference Number (TRN) and birth date. Across all TLIF projects, 97 per cent of teachers in the MI data were matched to at least one record in the SWC. Match rates varied somewhat across the different projects, although were generally very good, even after accounting for teachers in the MI data who linked to multiple teachers in the SWC, or did not link to an SWC record in the year in which they were recruited to the project.²¹

Table 24 shows that the match rate for teachers listed in the MI data as participating in the Edison project was 97 per cent to an SWC record in the year in which, according to the MI data, they were recruited to the project.

Stage of matching	Frequency of teachers
Total Edison participants identified in the MI data	1,422
Total Edison participants matched to at least one SWC record	1,403
Total Edison participants matched to an SWC record in the year they were recruited to Edison	1,380
Match rate (%)	97

Table 24: Matching teachers to the SWC

Table 25 shows that the match rate for schools in the MI data as participating in the Edison project was 100 per cent.

²⁰ The latest data is available here: https://www.get-information-schools.service.gov.uk/

²¹ Cases such as these where the match was clearly wrong were removed from the analysis.

Table 25: Matching schools to the SWC

Stage of matching	Frequency of schools
Total Edison schools identified in the MI data	98
Total Edison schools matched to at least one SWC record	98
Match rate (%)	100

Although 100% of schools in the MI data were matched with SWC records, the number of schools used in the analysis was only 97 as no start dates were recorded for one school so no baseline year could be assigned.

Methodology

Each of the methodological steps in the analysis were performed separately for evaluating the project effects at the individual teacher and the whole school level. After linking the MI data to the SWC, the group of comparison schools/teachers was derived whose retention and progression outcomes were compared to Edison-participating schools/teachers.

For each treatment and comparison teacher/school, a baseline year was defined, relative to which subsequent retention and progression outcomes were observed. For Edison participant teachers, this was defined as the year in which the teacher was recruited to the project. For any teachers with multiple observed recruitment dates, the first observed date was used as baseline. For schools, the baseline year was defined as the most common recruitment year for participant teachers in that schools. For example, if the majority of teachers in a particular school were recruited to the project in 2017, then 2017 was assigned as the baseline year for that school.

With this full set of potential comparator teachers/schools, a statistical technique called *propensity score matching* was used to ensure that the treatment and comparison groups were highly comparable in observable characteristics. This was done similarly but separately for teachers and schools. For teachers, the probability (propensity score) that a particular teacher with given characteristics was part of the treatment group was estimated. Edison participant teachers were then matched with up to ten of their 'nearest neighbours' – comparison teachers with the most-similar likelihood of being in the treatment group, and therefore with the most similar observed characteristics. For schools, the propensity score was estimated with the observed characteristics of the school, rather than individual teachers.

When propensity score matching is able to match on all of the variables that influence selection into the treatment group, then the only remaining difference between the

treatment and matched comparison group is the effect participating in the project had. However, variables can only be included in the matching if they are observed in the data. If other unobserved variables influence selection into the treatment group, and also affect retention, then this may partially explain some of the differences in outcomes between the two groups. The potential for this 'selection bias' means caution should be exercised about interpreting the differences between the groups as only representing the causal impact of the project.

The characteristics used for matching differed between the teacher and school-level analyses. At the teacher level, both teacher and school characteristics (observed at the baseline year) were used as variables in the matching. The teacher characteristics included age, gender, years since qualification,²² full-time/part-time status, post and baseline year. The school characteristics used for matching included Ofsted rating, phase, quintile of free school meal (FSM) eligibility, quintile of attainment²³ and region. Since 100 per cent of Edison participating schools were in AEA category 5 or 6, AEA category was not included as a matching variable. Instead, all comparison schools were drawn from non-participating AEA 5 and 6 schools at baseline.

At the school level, the following school characteristics (observed at the baseline year) were used as variables in the matching: school phase, Ofsted rating, quintile of free school meal (FSM) eligibility, quintile of attainment²⁴, pre-baseline year retention rates and an indicator of whether the school was participating in any other TLIF projects.

The quality of the match was assessed by examining cross-tabulations of the matching variables across the treatment and comparison groups. Where the variables are balanced – meaning the distribution of characteristics is similar between the treatment and comparison groups – the propensity score matching can be said to have performed well (see Tables 26 and 27 for the matching output).

As all of the outcome variables are dichotomous (i.e. yes or no), the differences in retention and progression outcomes between the two groups were estimated using logistic regression modelling. Retention and progression are considered separately from four different perspectives:

²² We used years since qualification as a stand-in for experience as the variable observing year of entry into the profession (which was used to calculate years of experience) had a substantial amount of missing observations.

²³ Attainment was measured as the proportion of pupils in the school that met the minimum requirements in Reading, Maths and Science at Key Stage 2 (for primary schools) or GCSEs (for secondary schools). Schools were assigned to an attainment quintile based on this proportion.

²⁴ Attainment was measured as the proportion of pupils in the school that met the minimum requirements in Reading, Maths and Science at Key Stage 2 (for primary schools) or GCSEs (for secondary schools). Schools were assigned to an attainment quintile based on this proportion.

- 1. Within the same school one, two and three years after baseline
- 2. Within the same LA one, two and three years after baseline
- 3. Within the profession as a whole one, two and three years after baseline
- 4. Within a 'challenging' school one, two and three years after baseline.

A teacher was considered to have been 'retained' in the same school/LA if they were teaching in a particular school/LA in a given year, and were then recorded as teaching in the same school/LA (based on URN and LA codes) one, two, or three years later. Similarly, a teacher was considered to have been 'retained' in the profession if they were recorded as teaching in a state-sector school in England in a given year, and then were also teaching in a state-sector school in England one, two, or three years later.²⁵

'Challenging schools' were generally defined as schools that were rated by Ofsted as 'requires improvement' or 'inadequate'. However, it was also assumed that all Edison participant teachers were teaching in a 'challenging school' when they were recruited to the project at baseline, even for the relatively few teachers that were in a 'good' or 'outstanding' school (see observed characteristics in the matched sample - Table 25). This is because the school had been deemed challenging enough to be targeted by the Edison project, despite having been rated favourably by Ofsted in its last inspection.

Retention in a challenging school was defined at the teacher level. That is, an Edison participant teacher was considered as having been retained in a 'challenging school' if they either stayed in the same school they were in at baseline, or had moved to a different school which was rated 'requires improvement' or 'inadequate' in the year they moved. It should be noted that this same definition also applies to comparison teachers (including those in 'good' or 'outstanding' schools not targeted by the Edison project), but the results of the statistical matching (see Table 24) ensure that the observed characteristics of the 'good' and 'outstanding' schools in the comparison group are similar to the observed characteristics of the 'good' and 'outstanding' schools within the treatment group.

As a concrete example, an Edison teacher in a 'good' school who stayed in the same school, or a non-Edison teacher in a 'requires improvement' school who moved to an 'inadequate' school would both be considered to have been 'retained in a challenging school'. Similarly, any teachers who moved to another school with a 'good' or 'outstanding' rating were considered to have moved to a 'non-challenging' school, regardless of the rating of the school they were in at baseline.

²⁵ To reiterate, since the SWC only observes teachers in state-sector schools in England, any teacher who moves to a private school or to a school outside of England will be considered to have left the profession.

Progression was defined according to three broad role categories – classroom teachers, middle leaders, and senior leaders. Middle leaders were defined as teachers in a "Leading Practitioner", "Excellent Teacher", "Advanced Skills Teacher", or "Advisory Teacher" post, or who received a Teacher Leadership Responsibility (TLR) payment of £100 or more in a given year.²⁶ Senior leaders were defined by those in an "Executive Head Teacher", "Head Teacher", "Deputy Head Teacher" or "Assistant Head Teacher" role in a given year.

A teacher was considered to have 'progressed' if they moved from a classroom teacher role to either a middle or senior leadership role, or a middle leadership role to a senior leadership role one, two or three years after baseline. Progression within a school/LA/challenging school is defined as those teachers who remain within the same school/LA/a challenging school and progressed from classroom teacher to middle leadership or middle leadership to senior leadership.

Eight different regression models were estimated, one each for retention and progression within the same school/the same LA/challenging schools/the profession. This was done using separate regression models for the teacher-level and the school-level analysis.

For the teacher-level analysis, a logistic regression model was used to estimate the likelihood of retention/progression in each of the eight models. As independent variables, all of the variables from the propensity score matching were included – in order to control for any remaining imbalances in the matching variables between the treatment and comparison groups after matching – as well as the treatment indicator and year dummy variables to account for specific time period effects (e.g. the impact of Covid-19 on the 2020 data). Senior leaders were excluded from the sample estimating the effect on progression as, based on the definition above, they are not able to progress any further and therefore progression outcomes are 'did not progress further' by definition.

To compare the differences between the two groups, the probability of 'retention' or 'progression' was estimated if every teacher had been involved in the project, and then again if every teacher had not been involved in the project. The average of these predicted probabilities is the average estimated retention/progression rate for treatment and comparison teachers, respectively. The difference between treatment and comparison teachers is the estimated 'marginal effect', which is presented in the tables in section 4, with the accompanying odds ratio estimates in Appendix E. Standard errors for the marginal effect estimates are calculated using the delta method and statistical significance is assessed at the five per cent level.

²⁶ This is a definition of middle leader that has been used by DfE in the past. See Footnote 14 in <u>https://www.gov.uk/government/statistics/teachers-analysis-compendium-2017</u>

For the school-level analysis, the models were estimated using teacher-level data in a logistic mixed-effects regression model. As independent variables, all of the variables from the propensity score matching, as well as the treatment indicator, census year and an interaction between these variables were included. School was included as a random effect.

To compare the differences between the two groups, the model estimated the probability that each teacher in the matched sample would have been 'retained' or 'progressed' if they had been involved in the project, and then again if they had not been involved in the project, in each of the five census years. The average of these predicted probabilities was then taken to find the estimated retention/progression rate, with and without the treatment. The difference between these estimated retention/progression rates is the estimated 'marginal effect', which is presented in the tables in section 4. The difference-in-difference testing was then performed to compare the difference between treatment and comparison, between pre-baseline and each post-baseline year. For each post-baseline year, the treatment vs. comparison difference was compared to an average of the pre-baseline difference. The same difference-in-difference estimates are also presented as odds ratios in Appendix **E.** Statistical significance is assessed at the five per cent level.

Statistical Matching

Table 26 below highlights the sample characteristics for the full treatment and comparison groups for the teacher-level analysis. In the unmatched samples, treatment teachers were more likely to be female, younger, and less experienced than in the unmatched potential comparison group. Similarly, the schools that treatment teachers were more likely to berated 'requires improvement' or 'inadequate' and had lower attainment and higher proportions of pupils eligible for free school meals. It should be noted that because 100 per cent of treatment teachers were in an AEA category 5 or 6 school at baseline, AEA category was not a matching variable and, instead, potential comparison teachers were also drawn exclusively from AEA category 5 and 6 schools.

After matching, the proportions of comparison teachers in each of the key matching characteristics were much more closely aligned with treatment teachers. While some small differences between treatment and comparison teachers still existed after matching, including the matching variables as covariates in the logistic regression modelling ensured that the final estimates controlled for any of these outstanding differences.

Focussing on the subset of potential comparison teachers who were the most similar to treatment teachers necessarily involved discarding some potential comparison teachers from the matched sample, when there were no sufficiently similar treatment teachers with which to match. Of the 462,010 potential comparison teachers, only 8,696 were matched to a treatment teacher, highlighting how, even within AEA category 5 and 6 schools,

potential comparison teachers were still fairly dissimilar to teachers recruited to the Edison project (at least in observed teacher and school characteristics).

Four potential treatment teachers were also discarded from the matched sample, as these teachers have no sufficiently similar counterpart in the potential comparison teacher sample.

Characteristic	Treatment teachers (%)	Potential comparison teachers (%)	Matched treatment teachers (%)	Matched comparison teachers (%)
Male	14.8	23.8	14.8	13.4
Female	85.2	76.2	85.2	86.6
Aged under 30	26.9	22.6	26.9	28.7
Aged 30-49	57.8	60.1	57.6	57.3
Aged 50 or older	15.4	17.4	15.4	14.1
Within 5 years of qualifying	28.2	23	28.2	30.0
Between 5 and 9 years since qualifying	21.1	19.9	21.1	19.7
Between 10 and 19 since qualifying	29.3	31.1	29.4	29.6
20 years or more since qualifying	20.5	21.4	20.4	19.9
Unknown years since qualification	0.9	4.6	0.9	0.8
Classroom teacher	77.9	68.7	77.8	80.5
Middle leader	3.3	17.5	3.3	2.1
Senior leader	18.8	13.8	18.9	17.4
Full-time	79.3	77.5	79.4	79.9
Part-time	20.7	22.5	20.6	20.1
Ofsted outstanding	< 1.0*	15.7	< 1.0*	0.2
Ofsted good	> 16.0*	62.7	> 16.0*	17.5

Table 26: Characteristics of treatment and comparison teachers before and aftermatching in the full sample

Characteristic	Treatment teachers (%)	Potential comparison teachers (%)	Matched treatment teachers (%)	Matched comparison teachers (%)
Ofsted requires improvement	72.9	14.0	72.8	71.8
Ofsted inadequate	7.8	4.4	7.8	8.7
Ofsted score unknown	2.2	3.3	2.3	1.9
Primary school	92.4	51.2	92.4	95.0
Secondary school	> 7.0*	48.8	< 8.0*	5.0
Special school	< 1.0*	5.7	< 1.0*	0.2
FSM highest 20%	35.6	22.8	35.7	37.4
FSM middle-highest 20%	31.5	22.4	31.5	31.2
FSM middle 20%	18.2	19.6	18.1	18.9
FSM middle-lowest 20%	11.4	16.5	11.4	9.4
FSM lowest 20%	> 2.0*	12.4	> 2.0*	2.8
FSM unknown	< 1.0*	6.3	< 1.0*	0.3
Attainment highest 20%	0.9	12.0	0.9	0.9
Attainment middle- highest 20%	19.6	19.0	19.4	17.2
Attainment middle 20%	13.1	22.9	13.2	12.9
Attainment middle-lowest 20%	21.7	23.9	21.7	22.1
Attainment lowest 20%	37.9	13.5	38.0	40.2
Attainment unknown	6.8	8.8	6.8	6.8
East of England	23.2	12.5	23.1	22.8
East Midlands	23.5	17.0	23.5	25.3
West Midlands	5.8	17.3	5.8	7.1
North East	5.6	2.5	5.6	4.4
North West	19.8	18.1	19.7	18.2
South East / South West	6.2	15.7	6.3	6.1
Yorkshire and the Humber	15.9	16.9	16.0	16.0

Characteristic	Treatment teachers (%)	Potential comparison teachers (%)	Matched treatment teachers (%)	Matched comparison teachers (%)
Baseline year 2017	65.8	33.4	65.7	64.3
Baseline year 2018	33.3	33.2	33.4	34.7
Baseline year 2019	0.9	33.4	0.9	1.0
Number of teachers	1,380	462,010	1,376	8,696

Note: * indicates proportion has been rounded due to small sample sizes.

Table **27** below highlights the school sample characteristics for the full treatment and comparison groups used in the school-level analysis. Most characteristics, like AEA category, attainment quintile, were not closely aligned before matching.

After matching, the proportions of comparison schools in each of the key matching characteristics were much more closely aligned with treatment schools. The propensity score matching has ensured that schools in the matched comparison group are drawn primarily from AEA category 5 and 6 schools, lower attainment schools and higher FSM schools, to match the characteristics of treatment schools. While some small differences between treatment and comparison teachers still existed after matching, including the matching variables in the logistic regression modelling ensured that our final estimates controlled for any of these outstanding differences.

Table 27: Characteristics of potential comparator schools, schools in theintervention group and matched comparison schools

Characteristic	Potential comparator schools (%)	Project schools (%)	Matched comparison schools (%)
Nursery	2	0	0
Primary	77	90	94
Secondary	15	10	5
16 Plus	0	0	0
Special	6	0	1
East of England	12	20	21
East Midlands	9	30	25
West Midlands	11	10	10

Characteristic	Potential comparator schools (%)	Project schools (%)	Matched comparison schools (%)
Inner London	5	0	0
Outer London	7	0	0
North East	5	0	3
North West	15	20	14
South East	15	10	6
South West	11	0	0
Yorkshire and the Humber	10	20	22
AEA category 1	15	0	0
AEA category 2	15	0	0
AEA category 3	17	0	0
AEA category 4	19	0	0
AEA category 5	17	40	37
AEA category 6	16	60	63
FSM lowest 20%	19	0	4
FSM middle-lowest 20%	18	10	12
FSM middle 20%	18	20	18
FSM middle-highest 20%	18	30	28
FSM highest 20%	18	40	37
Unknown FSM	9	0	1
Attainment lowest 20%	15	40	38
Attainment middle-lowest 20%	17	20	25
Attainment middle 20%	18	10	16
Attainment middle-highest 20%	18	20	11
Attainment highest 20%	16	0	1
Unknown Attainment	16	10	9
Ofsted Inadequate	3	10	12

Characteristic	Potential comparator schools (%)	Project schools (%)	Matched comparison schools (%)
Ofsted Requires improvement	10	80	68
Ofsted Good	64	10	16
Ofsted Outstanding	20	0	1
Ofsted Unknown	3	0	2
Number of schools	21636	97	831
Number of teachers	502748	3729	16595

Note: Matching was performed at a school level, so these percentages are also at a school level e.g. 10 per cent of schools not 10 per cent of teachers. Comparison school percentages are rounded to the nearest 1 per cent. Treatment school percentages are rounded to the nearest 10 per cent. The rounding is to ensure data are not disclosive.

Appendix E: Outcomes of SWC impact analysis

	1 year after baseline	2 years after baseline	3 years after baseline
Retention in state-	1.4	1.3	1.2
funded teaching	(1.1, 1.7)	(1.1, 1.5)	(1.0, 1.5)
Retention in the same	1.4	1.2	1.1
school	(1.1, 1.8)	(1.0, 1.4)	(0.9, 1.4)
Retention in the same	1.4	1.1	1.0
LA	(1.0, 1.9)	(0.9, 1.4)	(0.8, 1.3)
Retention in challenging	1.4	1.3	1.2
schools	(1.1, 1.9)	(1.0, 1.6)	(0.9, 1.5)
Progression in state-	0.8	1.0	1.2
funded teaching	(0.5, 1.2)	(0.7, 1.4)	(0.8, 1.8)
Progression in the same	0.8	1.1	1.4
school	(0.5, 1.4)	(0.7, 1.7)	(0.9, 2.2)
Progression in the same	0.9	1.1	1.4
LA	(0.5, 1.4)	(0.8, 1.6)	(0.9, 2.1)
Progression in	0.7	1.2	1.4
challenging schools	(0.4, 1.2)	(0.8, 1.7)	(0.9, 2.1)

Table 28: Odds ratios from the teacher-level retention and progression outcomeanalysis

Note: Figures in brackets represent the 95 per cent confidence interval of the odds ratio estimate.

Table 29: Odds ratios from the school-level retention and progression outcomeanalysis

	1 year after	2 years after	3 years after
	baseline	baseline	baseline
Retention in state-	0.9	1.0	1.0
funded teaching	(0.8, 1.1)	(0.8, 1.2)	(0.8, 1.2)
Retention in the same school	1.1	0.9	0.9
	(0.9, 1.3)	(0.7, 1.1)	(0.7, 1.2)
Retention in the same	1.3	0.9	1.0
LA	(1.0, 1.7)	(0.7, 1.1)	(0.7, 1.3)

	1 year after baseline	2 years after baseline	3 years after baseline
Retention in challenging schools	1.0	0.9	0.9
	(0.8, 1.3)	(0.7, 1.1)	(0.7, 1.2)
Progression in state-	1.1	1.4	0.9
funded teaching	(0.8, 1.6)	(1.0, 2.0)	(0.6, 1.5)
Progression in the same school	1.1	1.4	0.8
	(0.8, 1.7)	(0.9, 2.0)	(0.4, 1.3)
Progression in the same	1.2	1.4	0.8
LA	(0.8, 1.7)	(1.0, 2.1)	(0.5, 1.4)
Progression in	1.1	1.4	0.8
challenging schools	(0.8, 1.7)	(0.9, 2.1)	(0.5, 1.4)

Note: Figures in brackets represent the 95 per cent confidence interval of the odds ratio estimate.



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