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TLIF Evaluation: Teach First's Leading Together programme

Final report

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**Megan Lucas, Suzanne Straw, Julie
Nelson, Dawson McLean, Ruth Staunton
and Jack Worth: National Foundation for
Educational Research**



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Key findings summary

- Leading Together, delivered by Teach First, was funded by the Department for Education (DfE) between 2017 and 2020. Since then, the project has continued to run, operated independently by Teach First. The evaluation covers both DfE- and non-DfE-funded periods (2017-2021).
- Leading Together aims to support primary and secondary school leadership teams to improve leadership, teaching and student outcomes. Achievement Partners (APs) provide evidence-based support tailored to school need, drawing on their prior experience as successful headteachers.
- Leading Together comprises: evidence-based face-to-face and online learning modules; dedicated support from an AP who works with schools in challenging circumstances over a two-year project, providing coaching (individual and group) and tailored support; project opportunities for collaboration with other schools locally and nationally at residential events; and access to the project's 'Learning Pot' fund.
- The findings in this report are drawn from baseline and endpoint surveys of cohort 1 (2018-2020) and cohort 2 (2019-2021) participants, school case studies with cohort 2 schools, telephone interviews with APs and the Leading Together Project Manager, and management information (MI) supplied by DfE and Teach First.
- DfE management (MI) data indicates that the project met its recruitment targets for cohorts 1 and 2. Recruitment was challenging, but facilitated by using local stakeholders to make contact with schools, targeting specific geographical areas and clearly differentiating the support from other interventions.
- Although the Covid-19 pandemic meant that the delivery of Leading Together moved to a predominantly online model from March 2020, the qualitative evidence suggests that, overall, the delivery of the project went well and was perceived as being effective.
- Schools appeared to have made good progress implementing change and new ways of working in response to the knowledge and skills they had gained. Qualitative evidence suggests that, overall, the combination of learning modules, coaching and AP support were the most effective aspects of Leading Together at supporting implementation of learning.
- Participant engagement was relatively high, with most of the Leading Together components engaged with by over 80 per cent of participants. Overall, 93 per cent of participants rated their experience of the project as 'good' or 'very good'. Participants felt that the project had met their individual and school-level needs and were particularly satisfied with the individual coaching and team coaching by the AP, the twilight learning module sessions and email/telephone support from the AP.

- Qualitative evidence highlighted four features of Leading Together that enabled effective delivery and implementation, namely: the relationship with and credibility of the AP; the independence of the AP, and of Leading Together, from the accountability system; the flexibility and responsiveness of the delivery model and of the AP; and the length and evidence-based nature of the project.
- The evidence also demonstrated the importance of headteacher commitment, careful management of any staff resisting change, individual capacity and workload, and clarity of vision and desired outcomes for enabling effective delivery and implementation. Covid-19 was the main barrier to effective delivery and implementation. However, schools and APs appeared to have worked well to overcome this disruption and adapt the project to meet their needs virtually.
- Survey data showed significant self-reported improvement across all three outcomes specific to Leading Together: participants' **confidence as a school leader**, **confidence in how to support pupils to learn** and **personal leadership skills**. The qualitative evidence supported these findings.
- Survey data also showed six significant positive changes across the fund-level factors: **improvement in the effectiveness of school leadership** among all participants (middle and senior leaders in schools participating in cohorts 1 and 2 of Leading Together), **improvement in the effectiveness of professional development** among all participants, **perceived improvement in the effectiveness of school culture** among all participants, **improvement in personal knowledge for effective teaching** among middle leaders and **perceived improvement in school teaching quality** among middle and senior leaders. The qualitative evidence supported these findings.
- Analysis of the School Workforce Census (SWC) data provided some evidence that Leading Together was helping to retain participating teachers and support them to progress to senior roles. However, it was not possible to fully disentangle the effect of the project from other unobserved systematic differences between Leading Together participants and non-participants. The project was not estimated to have had a statistically significant effect on retention or progression rates for teachers at school-level.

These findings support the project-level and fund-level theories of change, though the results should be interpreted with a degree of caution due to the relatively low survey response rate at endpoint.

Glossary of Terms

Achievement Partner (AP) – an experienced former headteacher, employed by Teach First to deliver Leading Together

Learning Module – the content is organised into learning modules, each with two levels (foundation and mastery). Some modules are delivered online and some face-to-face.

Learning Pot – a pot of money available to Leading Together schools to spend on the school's identified development goals in consultation with their AP

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)).

Scaffolding – a pedagogical approach in which teachers strategically and incrementally remove the different levels of support they have in place to aid pupils' knowledge and skill acquisition in order to build pupils' independence and understanding of the learning process.

School Partnerships Manager – regional managers with responsibility for managing the Teach First's relationship with schools in each area

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.

1 About Teach First and the evaluation

The Teach First Leading Together project aims to improve the quality of leadership and teaching, and ultimately improve student outcomes. The project aims to create a whole-school culture of learning and development by upskilling senior leaders. The project is structured around learning modules, which are delivered in person by an Achievement Partner (AP) assigned to the school, with some elements online.

APs are experienced former headteachers, working with a cluster of schools in a geographical area. In addition to delivering the learning modules, the APs work with each school to identify the priorities for their School Improvement Plan, deliver coaching sessions and support the school to implement actions to meet their objectives. Senior leadership teams access learning and support within the school context, based around their school's specific needs. There are also residential events, which schools participating in Leading Together attend to receive training and opportunities to expand their networks.

Leading Together was developed by Teach First. It has a dedicated Project Manager who works with Teach First's network of regional School Partnerships Managers. The School Partnerships Managers are responsible for overseeing all school relationships in their area. The project is predominately run by Teach First, although they commissioned Deloitte to develop and run some of the modules.

The project lasts for two years and, each year, Teach First inducts a new cohort of participants. This process began in 2018 with cohort 1, and still continues. The DfE TLIF funding covered the delivery of cohort 1 (which ran from 2018-20) and delivery of the first half of cohort 2 (which ran from 2019-2021). It also covered recruitment of cohorts 1, 2 and 3. The evaluation covered the run-up to initial recruitment in 2018, the whole of the delivery period for cohorts 1 and 2, and the cohort 3 recruitment period (2017-2021).

Box 1 shows the geographical areas covered by cohorts 1, 2 and 3.

1.1 Theory of Change

Box 1: Cohort Composition

Cohort 1

Cohort 1 focussed on West Yorkshire and the North West, and included two Opportunity Areas (Bradford and Oldham):

- 1 primary school cluster in Bradford
- 1 primary school cluster in Oldham
- 1 secondary school cluster in Liverpool/St Helen's
- 1 secondary school cluster in Tameside/Pendle.

Cohort 2

Cohort 2 was delivered in areas across north, central and southern England, and included two further Opportunity Areas (Doncaster and Derby):

- 1 primary school cluster in Black Country & Wolverhampton
- 1 primary school cluster in Derby & Nottingham
- 1 primary school cluster in Sheffield, Doncaster & Barnsley
- 1 primary school cluster in Isle of Wight
- 1 secondary school cluster in Black Country & Wolverhampton
- 1 secondary school cluster in Sheffield, Doncaster & Barnsley.

Cohort 3

Cohort 3 was delivered in areas across north, central and southern England, and included an Opportunity Area (Derby):

- 1 primary school cluster in Isle of Wight and Portsmouth
- 1 primary school cluster in Kent
- 1 primary school cluster in Merseyside
- 1 primary school cluster in Birmingham and Wolverhampton
- 1 secondary school cluster in Derby and Burton-on-Trent
- 1 secondary school cluster in Merseyside.

The Teach First Leading Together project has a number of intended outcomes and impacts, which are outlined in the project logic model in Appendix A. The project logic model was created by the evaluation team, and reviewed by DfE. The logic model was based on the Theory of Change (ToC) submitted by Teach First as part of its bid; the research team's understanding of the project's underlying rationale, activities, outputs

and anticipated outcomes; and subsequent conversations with the project team. Intended outcomes included improved leadership at all levels within the school, improved priority setting and implementation of change, and increased satisfaction and motivation for teaching. Intended impacts included improved teacher retention and progression, increased pupil attainment, and increased demand for continuing professional development (CPD). The theory underpinning these intended outcomes was that by improving senior leaders' and middle leaders' knowledge and skills and by supporting leadership teams to embed their learning within the school, leadership in schools would improve, enabling the teacher- and pupil-level outcomes outlined above to be realised. The Leading Together project aims to create a whole-school culture of leadership, learning and development in the schools they are working with.

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

- learning modules (delivered online or face-to-face)
- support from an AP assigned to work with the school
- additional support from experts to help leadership teams to apply their learning in-school
- school-to-school collaboration
- support to recruit great leaders from the Teach First alumni pool of teachers.

Evidence has shown that leadership of CPD in schools can be patchy (Ofsted, 2006, 2010; Pedder *et al.*, 2008), suggesting that more needs to be done to improve the leadership, culture, structure and processes of CPD in schools. A review of effective professional development by Cordingley *et al.*, (2015, p.13) found that it is “important that professional development programmes create a “rhythm” of follow-up, consolidation and support activities”. Moreover, teachers report being more likely to stay in teaching as a result of better CPD and career development (Menziez *et al.*, 2015). Teach First talked to schools in priority areas to find out more about the barriers to CPD and leadership development and found that what schools wanted was leadership development tailored to the school and its context. The Leading Together project was developed with the aim of training leadership teams and providing schools with support to apply and embed the training. As well as supporting schools to develop their current staff, Teach First also supports schools that find themselves with a vacancy to recruit high-quality candidates from their teacher training alumni, reducing their recruitment costs and bringing in high-quality leaders to further build on the work of the Leading Together project.

1.2 Contextual factors

The Leading Together project was 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 sought 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. These included:

- **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 Leading Together project had a leadership focus and targeted school leadership teams
- **phase supported** (whether primary, secondary, or both phases) – the Leading Together project supported primary and secondary schools
- **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 recruit¹). Relative to the other TLIF projects, the Leading Together project was high 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 engage²). Relative to the other TLIF projects, the Leading Together project had an intensive delivery model
- **range of delivery modes** (categorised into two groups: a wide range (five to six modes), and a moderate range (three modes³)). The Leading Together project had a wide range of delivery modes relative to other TLIF projects.

In the fund-level report, we take the Leading Together project’s contextual factors into account as we compare its progress in achieving outcomes and impacts with the progress made by the other TLIF projects.

¹ 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.

² We did not have dosage data – so this assessment was based on intention rather than actual involvement, but it provided an indication of the nature of delivery. Our three resulting categories were: ‘intensive’; ‘moderate’ and ‘light touch’.

³ No projects had four modes of delivery and no projects had fewer than three.

1.3 Evaluation methodology

1.3.1 Overall 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) and outcomes (including teaching and/or leadership quality – see Chapter 4, Table 2 for full details). The objectives were to draw out learning and best practice for the ongoing development of the project, test out the project’s ToC, 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 the Key Stage 2 assessments and GCSE examinations for the 2020 cohort, DfE decided to remove this aspect of the evaluation. Therefore, there is no longer a pupil impact analysis aspect to the evaluation.

1.3.2 Evaluation methodology for this report

This final evaluation report draws on secondary data from the School Workforce Census (SWC⁴), survey and qualitative data. It provides a measure of the project’s success in achieving the TLIF programme’s impacts (SWC and qualitative data), outcomes (survey and qualitative data) and project-specific outcomes (survey and qualitative data). SWC and survey findings are supported by rich qualitative data, which aids understanding of the recruitment, delivery and implementation factors that influenced the achievement of these outcomes. It explores the links between inputs, outcomes and impacts, analysing the appropriateness of the project’s ToC in achieving desired results.

The evaluation data sources that form the basis of this report are outlined below.

1. A comparison of secondary data from the SWC for Leading Together participants, and for a matched group of non-Leading Together participants⁵. Leading Together participants were identified via project MI data, which was collected by DfE and shared with NFER. The impact evaluation, reported on pp. 64, assessed the impacts of the project on teacher retention and progression through an analysis of this secondary data from the SWC.

⁴ 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.

⁵ Non-Leading Together participants were defined as schools/teachers not enrolled on the Leading Together project or any other TLIF project. As 100 per cent of treatment teachers were in an AEA category 5 or 6 school at baseline, all comparison teachers were drawn exclusively from AEA 5 and 6 schools. Similarly, as no treatment teachers were from schools within London, comparison teachers were also drawn only from schools outside of London.

2. Baseline and endpoint surveys with senior and middle leaders in participating schools (cohorts 1 and 2). The baseline surveys were administered in spring 2018 to cohort 1 and spring 2019 to cohort 2. The endpoint surveys were both administered during the Covid-19 pandemic - spring 2020 for cohort 1 and spring 2021 for cohort 2.
3. Six telephone case studies with schools. The original plan was to conduct three interviews in each of five case-study schools, however, three of the five participating schools were not able to identify a non-participating teacher with capacity to be involved. We agreed with DfE to supplement the case studies with a sixth school able to offer an interview with a non-participating teacher. Once complete, all case studies included interviews with a Leading Together participant and the school's AP, and half of the case studies also included an interview with a non-participating teacher. The case studies all took place with cohort 2 schools: originally the case studies were to be split between cohorts 1 and 2, but the onset of the Covid-19 pandemic meant it was not possible to conduct case studies with cohort 1 schools.
4. Six interviews with APs: three supporting cohort 1 schools, conducted in November 2018; and three supporting cohort 2 schools, conducted in November 2019.
5. Three interviews with the Teach First Project Manager (in October 2018, November 2019 and November 2020).
6. Information gathered through catch up meetings with the Teach First research team throughout the project, including detailed discussions at start up.
7. Management information provided by the DfE and Teach First

Appendix C describes the methods used for matching MI data to SWC data, and for constructing a comparison group. Appendix D 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 88 per cent of Leading Together participants as recorded in the MI data with at least one record in the SWC.
2. Leading Together 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 C for the full list) observed in the baseline year, where baseline year for Leading Together 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 schools⁶.

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.

Further details on the approach to qualitative sampling, together with the selected characteristics of the case studies can be found in Appendix B.

Each of the interviews with the Project Manager, APs and case-study participants were semi-structured and lasted approximately 45 minutes. Interviews were recorded where interviewees gave permission, and analysed using the qualitative analysis package MAXQDA.

The cohort 1 endpoint survey was launched in March 2020 shortly before Covid-19 caused widespread disruption to the education system and was in the field during the pandemic. The DfE and NFER decided to cease all but essential communications with schools during this time – therefore, we did not institute a reminder strategy. Consequently, the response rate was much lower than at baseline (see Table 1).

Similarly, the cohort 2 endpoint survey was launched during the pandemic towards the end of the second period of partial school closures. While the DfE and NFER agreed to implement a light-touch reminder strategy, the response rate remained notably lower than at baseline (see Table 1).

Table 1 Survey response rates

Cohort	Survey period	Number of responses	Response rate
Baseline cohort 1	March - May 2018	89	75 per cent
Baseline cohort 2	March - June 2019	166	83 per cent
Endpoint cohort 1	March - May 2020	27	21 per cent
Endpoint cohort 2	March – May 2021	94	39 per cent

Survey analysis compared participants’ responses at baseline and endpoint to explore the extent to which their views changed over the timeframe that they were involved with the Leading Together project. The most robust way to analyse any change over time is to

⁶ For the purposes of this analysis, ‘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’.

analyse only the responses of those participants who answered at both baseline and endpoint as this provides greater control of individual differences between participants. Therefore, the majority of the survey analysis was based on a matched analysis of the small number of respondents who answered at both baseline and endpoint across both cohort 1 and 2 (n = 86). An analysis of the characteristics of all respondents who answered at baseline and endpoint, and how these compared to those in the matched analysis, can be found in Appendix E. This showed small variations in school-level characteristics between baseline and endpoint respondents, with a higher proportion of responses from primary schools compared to secondary schools at endpoint.

Factor analysis was used to explore the findings from the surveys. A description of this method and the analyses undertaken on the survey data can be found in Appendix F. Although there was a relatively small number of matched respondents at baseline and endpoint, it was still possible to compare average factor scores at baseline and endpoint using a paired-sample T test. Due to the relatively small number of responses at endpoint and the variation in the sample characteristics between the two time-points, the analysis was underpowered and therefore the results should be interpreted with caution.

1.4 Focus of this report

This report includes the following sections:

- **Section 2 – Recruitment and retention** (whether the project met its targets for school and participant 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 – 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 its 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 Leading Together 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

TLIF funded the recruitment of Leading Together cohorts 1, 2 and 3 up to March 2020. Recruitment **targets** were as follows:

- **Number of leaders:** the contractual target was 78 participants for Cohort 1, 156 for Cohort 2 and a further 156 for Cohort 3 (total: 390)
- **Number of schools:** the contractual target was 14 for Cohort 1, 28 for Cohort 2 and 43 for Cohort 3 (total: 85).

The DfE collected MI data from each of the TLIF providers. MI data collected in February 2020 is shown in Appendix H. The MI data supplied by DfE covered recruitment to Cohorts 1 and 2 only⁷, as the data collection occurred prior to Cohort 3 recruitment.

At the time of the data collection in February 2020, the DfE MI data showed that Teach First had recruited 53 schools, exceeding their target of 42 across the two cohorts. The data showed that there had been no drop-out at school level. The MI also reported that there were 337 participants (see Appendix H), 24 of whom dropped out, leaving 313 who had either completed the course, or who were still participating⁸. This was supported by the interviews with APs and case-study schools, who mentioned a low level of drop-out/turnover of participants within schools. Where this did happen, APs reported that it was usually due to retirement, moving on to a new school and/or changes in job role or personal circumstances. APs reported that another member of staff generally replaced participants who dropped out of the project. Some schools reported that they expanded their leadership teams during the course of the project, thereby increasing the number of leaders participating.

The DfE MI data also showed that, as of February 2020, Teach First had met its goal for 100 per cent of its schools to be from priority areas (AEA category 5 and 6, including Opportunity Areas). Of the 53 schools recorded in the MI data, 64 per cent were secondary and 36 per cent were primary.

DfE analysis of the following MI data can be found in Appendix H:

- total school and participant numbers
- distribution of schools by phase

⁷ The MI data is reported as a total across Cohorts 1 and 2. The Leading Together project manager reported during the interviews that 118 participants from 17 schools had been recruited to cohort 1, and 205 participants from 34 schools had been recruited to cohort 2.

⁸ Cohort 2 delivery continued until 2021.

- distribution of schools by region
- distribution of schools by AEA Category
- distribution of schools by Index of Multiple Deprivation Decile
- breakdown of participants by role.

Teach First reported that, for cohort 3, they had recruited 34 schools and by summer 2021 there were 246 active project members. The original contracted recruitment target for cohort 3 was 43 schools. However, following the disruption of the pandemic, Teach First agreed with DfE to adjust the target to 34 schools. At the end of the summer term 2021, all schools had been retained. In terms of composition, all schools had an AEA score of 5 or 6. Of the 34 schools recruited in cohort 3, 35 per cent were secondary, and 65 per cent were primary schools.

2.2 What enables and hinders effective recruitment?

The regional Partnership Managers oversaw the recruitment of schools to the Leading Together project, with the APs responsible for running it, typically appointed after schools had been recruited. APs mentioned a handful of occasions where they had been involved in recruitment by talking to schools they had worked with before, or by talking to schools from subsequent cohorts (for example, APs working with cohort 1 sometimes spoke to schools interested in signing up to cohort 2 or cohort 3 to offer information about the project), but these instances were rare.

The Project Manager highlighted three key factors that influenced the success of recruitment:

1. engagement with, and involvement of, local stakeholders
2. targeting specific geographical areas
3. differentiating the support from other offers, especially in Opportunity Areas.

Leading Together targets schools that are facing challenging circumstances and can be hard to reach. As a result, recruitment was not always straightforward, as this comment from an AP illustrates:

I think the difficulties are that sometimes the schools that need the programme are not going to volunteer to put themselves in it and quite often schools that would benefit from it don't get to hear about it.

In 2020, schools faced the added challenges brought about by the onset of the Covid-19 pandemic, which coincided with the recruitment period for cohort 3. The Project Manager

observed that many leadership teams, particularly in smaller primary schools, had less capacity than usual to engage with external programmes of support, which added an extra layer of difficulty to the recruitment of cohort 3 schools.

The following sub-sections explore each of the key factors in more detail.

2.2.1 Engagement with, and involvement of, local stakeholders

Teach First found that it was important to build a relationship with the school, following which they could start meaningful conversations about the support on offer, and how the project would work. The Project Manager reported that, in order to be able to do this, they needed the help of key local stakeholders who could broker introductions:

It was important that we had relationships with local MAT leads, or Teaching School Alliance leads, or Opportunity Area leads in the area to help us reach those schools. We found that, once we got to [the stage of] having conversations with those schools, the conversion rate was really high and very few schools said no to the programme. It was getting in the front door as it were.

This continued to be the case during the recruitment of cohorts 2 and 3. Teach First continued to use the contacts they had with stakeholders in local areas who would introduce them to schools, which helped Teach First ensure they were reaching the schools who they felt would benefit most from the project. However, they found it more difficult to recruit primary schools, particularly in terms of the initial contact and getting through to the right person:

Once they [secondary schools] heard about the programme and had a meeting with us, the conversion rate was really high. It was more about reaching the primaries that was more difficult. So using local relationships was really important...Secondary schools are just bigger and potentially, therefore, a little bit more outward looking, whereas we are working with some smaller primary schools. They have just the head and perhaps one or two other people. They [the primary schools] have less capacity for working externally. - *Project Manager*

During recruitment to cohort 2, Leading Together attracted several schools that were in the process of changing their leadership team, or joining a MAT, which affected the pace of recruitment and required careful management of the process:

When there were changes in leadership, a school might be slightly slower to engage initially as they needed to appoint a head...we had

to make sure we managed that change, but we did, and our retention is high. - *Project Manager*

Recruitment for cohorts 2 and 3 built on the experience of recruiting the earlier cohort. In particular, the Teach First team took advantage of the longer lead-in time by starting the discussions with schools earlier, and by bringing in some of the APs already working with schools to talk to prospective participants about the project.

2.2.2 Targeting specific geographical areas

The Leading Together delivery model is based on geographical clusters, with a single AP assigned to an area to work with a cluster of around 5-6 schools. Consequently, the recruitment was targeted around these pre-identified geographical areas, including – but not limited to – Opportunity Areas. The Project Manager explained that cohort 2 targeted different areas to cohort 1 (see Box 1) ‘to spread out the support’ and increase the reach of the project.

2.2.3 Differentiating the support from other offers, especially in Opportunity Areas

The Project Manager recognised that schools in Opportunity Areas were the target of many different interventions and support, so they needed to outline how the Leading Together project was unique and useful:

In Opportunity Areas there are a lot of things available for schools, and we needed to outline how our programme [differed]...by focussing on whole-school leadership. It's not an either or. Leading Together can support leaders to embed other provision even more effectively.

One of the APs identified Leading Together's whole-school package as a potential selling point of the project, particularly for schools overwhelmed by the different programmes of support on offer:

I think that potentially Leading Together gives the opportunity to tie some of [the varied support on offer] together into more coherent programmes, because it's a whole-school package with a whole-school improvement agenda.

The success of this approach was reflected in the clear understanding school leaders felt they had of the project when recruited to Leading Together, in terms of what the project had to offer and how it differed from other support available. Senior leaders and APs

agreed that key features of the project and support available were motivators for school participation, namely:

- perceiving the project as a valuable opportunity to build individual and collective leadership capacity over an extended period of time through access to the learning modules, AP support, and coaching
- confidence in the quality of the provision and CPD available, including the credibility of the APs, based on their previous experience of participating in other Teach First programmes or their positive perceptions of Teach First's reputation as a CPD provider
- the inclusion of funding to put towards release time, accessing additional external CPD and investing in resources.

The only concerns schools had prior to participation were the time and workload requirements associated with the project, and ensuring the project did not become another form of judgement and/or pressure on staff. These concerns were broadly allayed by two factors. The first was project funding, which allowed schools to pay for cover so that participants could be released from day-to-day responsibilities and create time for them to be involved in project activities. The second was the credibility of the APs. Schools were reassured that the APs were experienced headteachers who understood the demands of leading a school.

3 Delivery, and implementation of learning

3.1 Progress in delivery

Overall, the qualitative evidence suggested that the delivery of the Leading Together project had gone well, though significantly disrupted by the Covid-19 pandemic. The interviewees provided feedback on the main components of the project below, specifically:

- Achievement Partners (APs)
- ‘kick-off’ day and residential events
- tailored support from the AP
- learning modules (face-to-face and online)
- collaboration with other schools
- coaching by APs
- funds from the Learning Pot.

The following sections discuss each of the components, drawing on the Project Manager interviews, AP interviews, school case studies and questions asked in the endpoint surveys about participants’ satisfaction with Leading Together.

3.1.1 Achievement Partners

APs, each working with a small number of schools based in a geographical cluster, deliver Leading Together. The main roles of the APs include:

- supporting schools over a two-year period. The support put in place is flexible and tailored to the school’s needs, but typically includes individual and group coaching, providing support with the school improvement plan, strategic planning, and overall to provide support and challenge.
- delivering learning modules at residential events and in twilight sessions
- delivering cluster sessions (between schools) where appropriate
- supporting schools to access ‘Learning Pot’ funds in line with the school’s identified development goals.

APs are all experienced headteachers employed by Teach First specifically for this role. The Project Manager explained that it was important to employ APs with direct experience of successfully running schools to provide credibility:

They are all former headteachers and they have all got experience of demonstrating school improvement as a head. They have school leadership experience and school improvement experience, and experience of coaching and developing others. – *Project Manager*

Most of the APs work full-time, and all APs spend all of their time employed by Teach First on the Leading Together project. The model was designed to give the APs enough time to support the schools, and as the APs manage their own time they can be flexible when working with schools. In addition, time is set aside for the APs to collaborate and share practice and learning each week, as explained by the Project Manager in 2018: “A key part of their role is that we bring them together so they can share best practice and their experience”. The Project Manager elaborated further when interviewed again a year later:

Each school has quite a bespoke range of needs, so it is really important that the Achievement Partners are able share practice, share how they have found the delivery and adapted delivery. They are working across all things, school improvement and anything that the school could be focusing on. Sharing research and sharing ideas is a really important part of the role. – *Project Manager*

As they were all based in or near the area they were supporting, the APs had weekly virtual team meetings with the other APs, and face-to-face meetings each half term at a central location. These took place until March 2020 at which point the face-to-face meetings transitioned to virtual meetings. The Project Manager and the project team at Teach First supported these meetings. The APs appreciated this ‘support network’ and opportunity to share experiences with their peers:

We have a weekly Skype meeting on a Friday with all the other Achievement Partners and key people in Teach First who lead the team. That is really useful. [It covers] general housekeeping, things we need to know, and also an opportunity to talk through any issues or if any schools are at risk, or you have got any concerns...I always know who I can call on or ask for support. – *Achievement Partners*

During the first year of Leading Together, the APs were all line managed directly by the Project Manager but, as the project expanded, the line management was transferred to the regional Partnerships Managers.

When the APs join Teach First, they are given an induction to the project, and training in coaching and school improvement planning. APs are also given extensive training in the content and delivery of the learning modules they will be delivering (for more information

see Section 3.1.5 below), spaced throughout the year, in advance of their delivery to schools. The training to deliver the modules involves the author of the training walking the APs through the content, with an opportunity for in-depth discussion and questions. APs then have a 6-7 week period in which they are to complete the background reading and fully understand the content. They then reconvene for a guided practice session, in which they deliver parts of the module back to the other APs. They receive feedback on this session, which they are expected to build into subsequent delivery. The detailed and intensive nature of this training was valued by the APs. As one commented:

It's absolutely fantastic. There are 12 learning modules, eight of which are delivered by us. We've got a really, really clear and well-structured training programme to make sure that we absolutely know exactly what we are talking about.... It's only when we are absolutely 100 per cent sure of all of the content that we deliver the [training to schools]. – *Achievement Partner*

Overall the APs were positive about the training they had received, and about the quality of the content. Below are a selection of quotations, which illustrate this:

The theoretical background of the work and the research [that has] gone in to devising the curriculum that we're delivering to schools is really well thought through. – *Achievement Partner*

It's high-quality, very high-quality, research [and] evidence-based designed. I've been very impressed with it. There has been an element of upskilling myself, which has been exciting, but also learning about the cognitive science and meta-cognition and how prevalent that is in school now. We have had some intensive support on how to group coach and we get supervision on that as well. – *Achievement Partner*

[We received training in] problem solving-type activities and things you are likely to be faced with within in a school and how we might solve those, that's been good. – *Achievement Partner*

3.1.2 'Kick-off' day and residential events

Leading Together for cohorts 1 and 2 commenced with a 'kick-off' day in which all of the participants came together for an introduction to the project. The day included the delivery of some of the learning modules.

Each year of the project, in the summer term, cohorts 1 and 2 also participated in a face-to-face residential event (although the summer 2020 residential was cancelled due to Covid-19). The agenda for the residentials included the delivery of some of the modules, as well as opportunities for networking and collaboration both informally and formally in break-out sessions. The face-to-face events (including the residentials) were delivered by the central Leading Together team, the APs, and Deloitte (who delivered their modules⁹).

The 'kick-off' days and residentials were the only time when all of the schools participating in Leading Together met up:

The content is really well received and we had really positive feedback on the events... people have really valued being able to collaborate with other schools and come together and have a bit of head-space and found it really helpful that it is research-informed. –
Project Manager

Cohort 1 schools were able to take part in both planned residentials. However, due to the pandemic, cohort 2 participants (who were the case-study respondents) only took part in the first residential at the beginning of the project as the second residential planned for the summer term 2020 was cancelled. Therefore, the cohort 2 case-study participants were only able to reflect on the effectiveness of the 'kick-off' day and residential that took place. Some leaders noted that, without the second residential, they had an incomplete picture of this strand of support and so found it challenging to evaluate its effectiveness.

Based on their experiences of the 'kick-off' day and residential that did take place, leadership teams valued the opportunity to spend an extended period of time focusing on their development priorities and strategic planning as well as building networks with other schools, with one senior leader describing it as "a really strong start". However, there was consensus that they did not perceive the 'kick-off' day or residential events as the most effective aspects of the project. Other aspects, outlined below, were more highly valued – especially the support provided by the AP, coaching, and learning modules.

3.1.3 Tailored support from the Achievement Partner

APs started off the two-year project by working with their schools to diagnose the areas in which the school and the senior leadership team required support:

APs worked really closely with the leaders and the heads to understand what are the real needs of the school, what are their

⁹ Teach First worked with Deloitte to design and deliver 4 of the 12 learning modules that constitute Leading Together. The modules led by Deloitte covered the following topic areas: strategic planning and implementing change; budgeting and finance; governance, legal and compliance, and HR and performance management.

priorities in their school improvement plan... collating clear goals in the actions within that plan. And those will frame the support that the Achievement Partner gives. – *Project Manager*

Since September, it has been a lot of developing our understanding of where the school is, its needs. Getting to know everybody... You really find out what the school needs so you can make it bespoke and you can link all the modules together so you can support them. - *Achievement Partner*

Leading Together was designed to be a two-year project in order to give schools and APs the time to develop a constructive working relationship and to collaborate to embed the learning from the development activities offered across the two years. On this theme, one AP gave an example in which, even after six months of building relationships and trust, not all schools had yet taken the opportunity for support with their action plans:

It's got to be gradual, because they've got to build up the trust, because these are quite broken schools that have had an influx of people telling them what to do and then leaving. – *Achievement Partner*

Case-study interviewees agreed that the tailored, flexible support provided by the APs was highly effective. One senior leader felt that “this programme wouldn't have been as successful if it was just about the training or the online modules”. Schools felt this aspect of the Leading Together project was highly effective for three reasons. First, having the same AP for the duration of the project meant that they received consistent, tailored support throughout the process of identifying needs and priorities, undertaking training and CPD, and implementing learning and changes to practice. Second, senior leaders felt that having the same AP for the entire project allowed APs to be highly responsive to changes in the school's circumstances and needs, particularly with the onset of the pandemic, streamlining and tailoring their support as necessary:

That's down to the AP's approach, just the flexibility that he has... he was aware of school events, of any reviews we were going through as a leadership team, any pinch points – *Senior Leader*

Third, senior leaders believed that APs added much needed capacity to the senior leadership team while they developed the capacity and capability as both individuals and as a leadership team to operate effectively on their own. As one senior leader put it: “metaphorically she's [the AP] been like our stabilisers and they can now be removed”.

The evidence suggested that the building of trusting working relationships between the participants and their APs was key to effectiveness. The APs, in particular, felt this created a culture in which senior leaders felt comfortable being challenged by them, reflecting on their feedback and working to implement change:

I think that, without me as an impartial facilitator there, that would have been difficult for them to do, because sometimes schools without that external view struggle to see the wood for the trees –
Achievement Partner

What was really useful as well is the fact that I wasn't part of the Trust, I wasn't HMI Ofsted, school improvement... Actually what it meant was [the headteacher] could have the most honest conversations with me and I could with [the headteacher] –
Achievement Partner

In some schools, the process of building trusting working relationships was expedited because the AP currently, or had previously, worked to support the school in another role such as via the local authority.

Senior leaders and APs were in agreement that, while the pandemic changed the ways in which APs were able to support the school (e.g. meetings with senior leaders occurring via video conferencing rather than face-to-face), this had little impact on the effectiveness of the AP support, although, senior leaders did miss the face-to-face contact with their AP and having the opportunity to immerse their AP in day-to-day school life:

There is nothing like having a face-to-face with your Achievement Partner and them living and breathing school issues with you. It is a very different beast doing everything remotely. – *Senior Leader*

3.1.4 Coaching by Achievement Partners

APs provided coaching as appropriate to the school: this included individual coaching for the headteacher and other members of the leadership team, or group coaching:

We do coaching sessions with individuals, small groups, whole groups and headteachers around their action plans and how to move the school forward. We are also there for bespoke support in specific areas. - *Achievement Partner*

The mode of coaching delivered was flexible and, depending on the preference of the school and the individual, included face-to-face and/or telephone support. As one AP commented "I want to be able to offer them the opportunity to have the support when

they feel they need it". As well as being flexible with the mode of coaching, APs offered the coaching early in the morning or the evening, to fit around the school day:

They are schools with lots of pressures...it's very busy. It's how to make sure they are not just constantly fire-fighting, that they are thinking strategically. - *Achievement Partner*

APs emphasised that tailoring the coaching was essential, not only because the schools had different contexts and needs but also because, within any given school, there was variation in the needs of the individuals as well. One AP explained that the APs varied their approach to one-to-one support depending on the individual, so that novice leaders would experience a mentoring approach while more experienced leaders would have coaching.

This flexibility and tailoring was of utmost importance during the disruption brought about by the pandemic, as senior leaders' capacity, priorities and support needs changed. Although APs were not able to visit schools in person for large portions of 2020 and 2021, the removal of the need to travel between schools gave them increased flexibility as to when they could offer virtual coaching sessions. Senior leaders found this helpful as it enabled them to slot coaching sessions into their day-to-day workloads more easily. Some APs changed the balance of how much individual, group and/or team coaching they delivered based on how well they felt each type of coaching worked remotely:

I've not done team coaching with them since. I've done some individual and some nice work with them, but no, it was Covid that affected the team coaching aspect. - *Achievement Partner*

I've kept the one-to-one online all the way through. I've veered away to some extent from the team and group coaching because I personally thrive on the body language, the nuances, in a room –
Achievement Partner

While group coaching was one of the elements of Leading Together that many schools lost as a result of operating through the pandemic, those schools that continued with it in a virtual format clearly valued it:

For us and the school, the group coaching has been the most effective part of the programme. That comes back to the fact that we were a new team together at the start of the programme. So, we were able to work through that together and develop as a team together. – *Senior Leader*

Overall, there was consensus across all of the case-study schools that the coaching was one of the most effective aspects of Leading Together. The senior leaders and APs felt that the coaching was most productive when focused on a particular issue or area in which the person or school needed support, for example curriculum design or using assessment data. The coaching was often used to support them in embedding learning and implementing changes in practice after receiving CPD, particularly the learning modules which, again, were perceived as highly effective and valuable (see below).

Senior leaders and APs highlighted that the coaching was also highly impactful because it provided a space in which the senior leadership team could work together, build relationships, and change the culture within the team with the support of the AP. It also provided time to focus on school and individual development needs.

3.1.5 Learning modules (face-to-face and online)

One of the core features of Leading Together is the curriculum of learning modules that APs deliver across the two-year project. During the evaluation period, the learning modules were delivered during the 'kick-off' day, the residentials and the twilight sessions. Two thirds of the modules were developed and written by Teach First and delivered face-to-face until March 2020, after which time they were delivered virtually. The remaining modules were developed by Deloitte. The modules have two levels:

- **foundation** (gaining or building knowledge; the foundation level of the Deloitte modules were provided online and the Teach First developed modules were delivered face-to-face by APs with a small amount of online pre-work)
- **mastery** (application of the knowledge both generally and specifically in their school; Teach First mastery modules were delivered by APs in schools; Deloitte mastery modules were delivered by Deloitte at the 'kick-off' days or residentials).

The APs described how this model enabled schools to access the high-quality content:

The modules are very much based on research evidence so it's allowing people in very busy schools to take two hours out of their busy weeks to actually sit down and focus on high-quality training and research evidence that they potentially wouldn't have had time to do otherwise. - *Achievement Partner*

The face-to-face modules comprised content delivered by the AP using a slide deck and video, with opportunities for the schools to discuss the content with each other. APs used their knowledge of the schools to tailor the content, for example by drawing on relevant examples (also see the box 2, below):

I was able to make reference to things they were doing in each school and where it was relevant to the delivery and I think that was really good, because it encouraged [the] schools to realise that they've got strengths that the others could learn from and vice versa.

- *Achievement Partner*

They all get the modules as they are written, but how we work with them in between is very different in each school. Sometimes the headteacher wants more coaching on how to lead the team, and others are much more experienced headteachers, but they know they have got middle leaders who are less experienced, and so they would like me to work with them on how they are going to lead that particular part of school improvement. - *Achievement Partner*

APs aimed to deliver the twilight sessions to their group or cluster of schools but, if a school was unable to attend a session, the AP would visit the school to deliver a catch-up session (see Box 2 for an example). However, the pandemic and associated restrictions meant that, during the second year of the project, the twilight sessions had to be delivered remotely. As a result, the Teach First Project Manager reported that “a number of schools delayed delivery of the learning modules”. While the APs agreed that this had happened in some of their schools, they noted that learning modules had still all been delivered successfully. The APs also reported that the pressures on schools and individuals meant that they often needed to deliver these sessions to each school individually, rather than to the cluster as a whole.

Box 2: Flexibility of the AP offer

APs were able to tailor their support according to changes in school situations. One AP described how they responded when one of their schools had an Ofsted inspection on the day of a scheduled twilight session. As the senior leadership team had experienced a very busy day, the AP adapted the twilight training session and combined it with group coaching. The time was used to discuss and reflect on the school's current position and what needed to happen next. It turned into a strategic planning session about what good lessons look like, and the group was able to identify and assign actions, which the assistant headteachers took ownership for as part of their development.

The APs explained that the learning module delivery process was not simply one of the AP speaking from the front, rather, coupled with the coaching and targeted collaboration with other schools, the participants were supported to implement the learning from the modules in a way that was relevant to their school:

Generally, we have a session per month where we deliver, because we feel it is important that schools and individuals have the opportunity for the learning to embed. They receive an input and they have a few weeks to process the learning content...It's an ongoing process, I'm supporting the schools through coaching and the implementation of it. - *Achievement Partner*

After the first six months of cohort 1 delivery, Teach First reviewed and changed the order of the modules based on feedback from APs and schools. This change resulted in the module on strategic planning moving to earlier in the project to provide a basis on which the subsequent modules could build.

There was broad consensus among senior leaders and APs that the learning modules were an effective component of the project, in part due to the evidence base on which they were built:

I'd say that the modules have been very useful to them, because they've provided them with research. They've tested their thinking and given them more to think about – deeper thinking. That's stimulated discussion between the whole team and then impacted on practice. – *Achievement Partner*

However, the perceived effectiveness varied depending on the module, the schools' needs, and the individual's pre-existing knowledge and experience. APs felt that the learning modules were particularly beneficial for leaders who were newer to role. Modules related to the science of learning, curriculum, implementing change, and assessment were highly regarded by all schools and were considered highly impactful both for the leadership team and for non-participating teachers as the learning was disseminated across the school:

The quality of the training on the science of learning, particularly, and for me, the curriculum modules have really helped to focus on the drive of curriculum and be confident about why and what we're doing. – *Senior Leader*

The learning modules on the science of learning that we did on the residential weekend, and then our AP delivered to our teachers, has had a huge impact on the quality of teaching and learning and the knowledge and understanding of our pupils and how that has been retained. – *Senior Leader*

Other modules related to school management, governance and business models had a more mixed reception:

There have been certain modules, and they're ones that tend to be linked to a business model, that have been more difficult for us to find value and impact from. – *Senior Leader*

Schools also felt that the twilight sessions were more effective than the module content delivered via the online platform. When asked to rate their satisfaction in the survey, the online modules were not rated quite as highly as the face-to-face learning modules. According to the survey, 81 per cent of leaders felt the face-to-face twilight learning modules 'fully' or 'moderately' met their needs, compared to 72 per cent for the online modules (see Appendix I). The Project Manager said that some of the feedback they had received indicated that participants did not find the online content as easy to access, and completion rates of the online modules had been lower than modules delivered at face-to-face events. This was echoed among some of the case-study interviewees. For example, one senior leader commented: "We engaged more with the face-to-face than the portal. For us that worked better". Some senior leaders did not get on well with the online platform and typically leaders preferred being able to interact with colleagues and the AP while working through the module content.

3.1.6 Collaboration with other schools

Collaboration between schools took place during the residential events and the cluster meetings for the twilight sessions. In addition, the APs arranged for links to be made between schools as needs were identified:

I was able to link three early years practitioners together from three of my schools because I have been coaching them and they're all focusing on the same thing.

Prior to the onset of the pandemic, collaboration appears to have occurred primarily in the form of light-touch networking and relationship building with some knowledge-sharing, rather than in-depth collaboration between schools or individuals to achieve a particular outcome. In some instances, APs felt that schools were used to working in isolation, were somewhat inward-looking owing to their challenging circumstances, and were not used to sharing information or experiences. APs explained that they were working with these schools to build the trust and appetite for collaboration. Other examples of school-to-school collaboration included APs arranging visits to other schools to observe best practice.

The Covid-19 pandemic impeded schools' attempts to collaborate from March 2020 onwards. Some senior leaders reported their original intentions had been to deepen their collaboration towards the end of the project once they had a strong foundation on which to build, but that the pandemic had prevented this from coming to fruition. Consequently, while some senior leaders felt that collaborations "definitely strengthen links with schools in the local area", the case-study schools broadly agreed this had been the least effective aspect of Leading Together:

I think every school in the partnership is so different, that it was hard. Yes, we shared, but I don't think as a group of schools we were particularly collaborative. – *Senior Leader*

During year two of the programme we were intending to build on the collaborative work between schools, that's something [that's] been really hampered by the Covid shutdowns. – *Achievement Partner*

The collaboration has probably been the least effective. I think it would have been really beneficial for lots of us to have developed links with other schools on the programme that we could have perhaps carried on and built on, once the programme finished. [But Covid has impacted on that more than anything. That wasn't within anyone's control] – *Senior Leader*

3.1.7 Funds from the Learning Pot

All schools participating in Leading Together are eligible to access funds from the 'Learning Pot'. This was not mentioned at all by cohort 1 APs¹⁰ but, by the time of the interviews with the cohort 2 APs and case-study schools, they talked about a £5,000 pot of money available to participating schools to be spent by the school to support their identified aims. The APs supported their schools to identify where the money could be best spent.

The case-study schools were emphatic that the Learning Pot was vital to their school being able to participate, enabling the school to engage effectively with the Leading Together project. A key way in which many schools used the Learning Pot was to fund cover for leaders, particularly those with large teaching commitments, to facilitate their full participation in Leading Together. By using the money this way, schools were able to ensure leaders had the dedicated time and headspace to commit to Leading Together:

¹⁰ Although note that the survey data (Appendix I) indicated that 16 respondents from cohort 1 had accessed the Learning Pot by the end of their involvement. Also see Section 3.2.

I think the funding pot was the most effective for us, because it gave us opportunities. – *Senior leader*

It's very rare to be able to free them up to do big strategic talks with your middle leaders. We used the funding to really give those middle leaders more opportunity for that and [for] CPD we wouldn't have been able to afford. – *Senior leader*

Certainly, the funds attached to the programme enabled us to have the capacity to be able to really focus, prioritise properly on the tasks at hand. – *Senior leader*

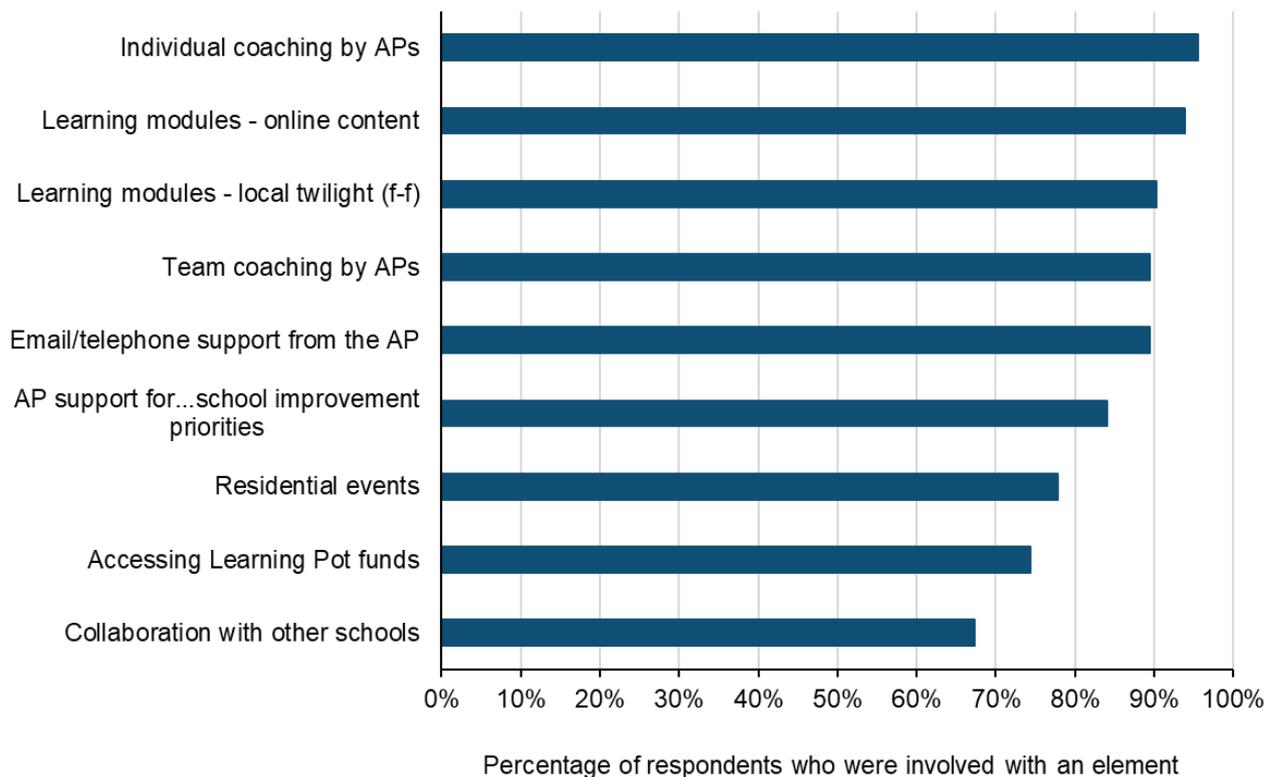
Other examples of how the funding was used included: investing in additional resources such as assessment materials or improved play equipment (with the aim of improving behaviour), and funding new evidence-based classroom interventions. In a few instances, the investments made using the Learning Pot had the unintended benefit of helping to mitigate the impacts of Covid-19. For example, one school used the funds to purchase revision guides for their Year 11 students, which proved invaluable when schools closed to most pupils in 2020 as the entire year group had a high-quality revision book at home that they had already been working through in school.

3.2 Participant engagement and satisfaction

The endpoint survey asked participants which of the aspects of Leading Together they had engaged with, to what extent, and whether the activity had met their needs. The frequencies of responses are provided in Appendix I. Respondents were routed to specific questions depending on the elements of Leading Together they had experienced.

Overall, participant engagement was relatively high, with most of the Leading Together components engaged with by over 80 per cent of participants. This is shown in Figure 1. Engagement was highest for the individual coaching by APs and the learning modules - over 90 per cent of participants engaged with these activities. The elements with the poorest engagement levels were collaboration with other schools and accessing the Learning Pot. Furthermore, depth of engagement was good. If a participant had been involved in an activity, in most cases they reported that they had been 'moderately' or 'fully' involved.

Figure 1: Survey respondents' involvement in elements of Leading Together



*N=113 (across cohorts 1 and 2)

APs were pleased with case-study leaders' levels of engagement and commitment, reporting that, despite the unpredictable demands of the pandemic, engagement levels had remained fairly stable for the duration of the project. One AP commented:

There has still been continuity in terms of the contact with the principal, contact with members of the team and the newer members of the team, as well as [participants] continuing to engage in the modules.

Overall, across both cohorts, 93 per cent of participants (105 out of 113) rated their experience of the Leading Together project as 'good' or 'very good', despite the disruption experienced by cohort 2 participants. Most of the individual elements were rated highly too; the most highly rated were:

- individual coaching by the AP (89 per cent of respondents who participated in this element felt this met their needs 'moderately' or 'fully')
- learning modules – twilight sessions (81 per cent of respondents who participated in this element felt this met their needs 'moderately' or 'fully')

- team coaching by the AP (80 per cent of respondents who participated in this element felt this met their needs ‘moderately’ or ‘fully’)
- email/telephone support from the AP (80 per cent of respondents who participated in this element felt this met their needs ‘moderately’ or ‘fully’).

These high rates of satisfaction were echoed by the case-study senior leaders, who felt that the project had met their individual and school-level needs:

The fact that they're reactive to what's going on as a school is excellent and it certainly met our expectations, and possibly more. We got a lot more out of it than we thought we would even when we signed up for it. – *Senior leader*

Absolutely phenomenal. It really is. I just would highly recommend it to anyone. I think it's invaluable for senior leaders and people who are wanting to go into headship like I was. – *Senior leader*

Some senior leaders felt the project had exceeded their expectations, despite the pandemic. However, one, while very satisfied with the project, was “disappointed” that, given the disruptions of the second year and limitations placed on how the school was able to engage with Leading Together, they were not able to extend their involvement for longer to make up for the time and opportunities they felt they had lost.

3.3 Progress in the implementation of learning

The Leading Together project provided structured school-level support for implementation as an integral feature of its offer. It did this by giving each participating school a named AP that worked with members of the senior leadership team, both on the specific inputs from the project (e.g. the learning modules) and on a tailored and ad-hoc basis as needed, as detailed in Section 3.1.

The onset of the pandemic did delay some aspects of the project. However, despite the pandemic, all case-study schools were able to demonstrate progress in implementing learning and changing practice in response to the knowledge and skills they had gained. There are three broad areas in which schools were most commonly implementing learning and changing practice: teaching practice; leadership practice; and curriculum. The implications of the progress made in implementing change on outcomes are discussed in Section 4 – Outcomes and impacts of the provision.

In terms of **teaching practice**, many schools delivered evidence-based whole-school training based on science of learning principles and used this to develop teaching

materials and shape practice in school. For example, schools changed the way teachers designed tasks, utilised assessment data and structured their teaching to prevent cognitive overload and to facilitate retrieval practice. In some instances, schools incorporated these principles into teachers' performance management reviews. Box 3 details an example of how one school implemented teaching practice changes.

Box 3: Implementing learning to change teaching practice

Prior to participating in Leading Together, school improvement and pupil progress in case-study school C¹¹ (a primary school) were driven by the headteacher and deputy headteachers via a top-down approach. The AP support, coaching, and learning modules combined to support the newly-expanded leadership team to revise the school improvement plan and devise a new approach to assessment and pupil progress that tied into this. The learning modules, particularly the science of learning module, equipped leaders with the knowledge and skills that underpinned this new strategy, while the coaching and AP support helped the team to use this knowledge to create a cohesive strategy. These aspects of the project also combined to give the senior leaders the confidence to allow subject leaders to drive and implement changes to teaching practice school-wide, based on the science of learning. The school found it beneficial to distribute responsibility for implementing learning and change across these middle leaders. They reported that the proximity of middle leaders to classroom teachers was helpful for disseminating knowledge, delivering CPD, and monitoring implementation at classroom level. The school also asked the AP to deliver whole-school training to teachers, and incorporated the principles of the science of learning modules into their performance management process.

The non-participating teacher at this school confirmed that middle leaders had been supporting them to change their teaching practice, particularly in relation to assessment and pupil progress. The teacher reported using their new knowledge of how children learn and process information to inform their planning and resources and to utilise assessment data more effectively to inform their practice (for example, to detect knowledge gaps). Senior leaders felt that teachers were now able to speak with confidence about the classroom strategies they had implemented and why, their evidence base, and the impact on pupils.

In terms of **leadership practice**, many schools had begun implementing a new style of leadership, becoming more open and transparent in their approach and/or distributing leadership responsibilities across a wider group of leaders. Some schools had also modified their leadership structures, roles and responsibilities and had spent time ensuring that the whole school understood this. Leaders in many schools also reported

¹¹ See Appendix B for details of the lettering convention used for the presentation of case studies.

that they were using their enhanced knowledge and skills to develop a more strategic, evidence-based approach, aligned to a clear school vision and ethos.

Finally, some schools were developing their **curriculum** and/or changing their approach to curriculum design and implementation, often with the support of the AP and other key members of teaching staff. For example, the learning modules and work with the AP caused one secondary school to reflect on its curriculum and whether it was fit for purpose. Leaders in the school used their new learning (for example, on the science of how students learn) to lead a curriculum review. The pre-existing curriculum was deemed inadequate, as appropriate schemes of work and short- and long-term curriculum plans were not in place. The leaders also felt that it was not sufficiently grounded in the science of how pupils learn and that it was not supporting effective teaching and learning practice. This culminated in a whole-school INSET day in winter 2020 where the new curriculum was launched. Staff received training on this and were supported to write short- and long-term plans for its implementation. The school also restructured the school day and timetable to better support their new curriculum.

Qualitative evidence suggests that, overall, the way the project structured and delivered the learning modules, coaching, and AP support was perceived as highly effective for supporting implementation. The selection of quotations below exemplify some of the reasons why senior leaders and APs felt these aspects were so useful:

[The] science of learning and the curriculum and the assessment modules have been really, really useful for them. The science of learning is the one that always comes back as the strongest module, because that's the one that really has underpinned everything. – *Achievement partner*

Because our Achievement Partner was with us, it meant that...we stopped being affected by those distractions and really [focused] on the strategic development that we needed to do. – *Senior leader*

APs reported that it was the combination of these support elements and how they were structured and delivered to be mutually supportive that was particularly effective. They suggested that the learning modules often sparked the desire to implement change and to build the knowledge and skills needed to support new practice, while the changes to practice and strategy were developed and implemented via other aspects like coaching with support of an AP:

The three that had the biggest impact are the science of learning module, the curriculum module and the assessment module. Those are ones that really get people fired up... So, it's that coupled with the group coaching sessions, where often we look at strategy for

implementation for them, and the individual coaching sessions where we can mop up any misconceptions about them or look at practical implementation of them. – *Achievement partner*

The quality of the training on the science of learning, particularly, and for me, the curriculum modules have really helped to focus on the drive of curriculum and be confident about why and what we're doing...Although, at times, you're thinking 'Why am I doing this online module?' actually it's always to just do the groundwork, so when you've got the time with your AP and the other schools it's focused on discussion, rather than it just being knowledge. I think they work well together. – *Senior leader*

3.4 Challenges and enablers in effective delivery and implementation of learning

The following sections highlight key enablers and challenges that interviewees felt had affected delivery and implementation of learning.

3.4.1 Factors related to the provider/provision

The qualitative evidence highlighted a number of provider-level aspects of Leading Together as important for enabling effective delivery and implementation of learning:

- the relationship with, and credibility of, the AP
- the independence of the AP and of Leading Together
- the flexibility and responsiveness of the delivery model and of the AP
- the length of the project
- the evidence-based nature of the project.

These are discussed in further detail below.

The relationship with, and credibility of, the AP

The senior leaders and APs highlighted the importance of an open, trusting relationship between the senior leaders and their AP, especially as the AP was in place for the duration of the project. The APs felt that this was important because it formed the basis of good communication and collaboration. Having high-quality working relationships allowed the AP to challenge and have frank conversations with leaders:

I would say that comes down to the relationship that I've had with the head, because there's just been an absolute openness and

transparency with the principal... At the heart of it is the trust to be able to discuss and to challenge. – *Achievement Partner*

It also meant that leaders were comfortable raising issues and discussing their needs with the AP. In some instances, schools had a pre-existing relationship with their AP outside of Teach First (for example, via the LA). These leaders said this was extremely helpful and expedited relationship-building across the school:

We knew that the person who was going to be working with us most was going to be somebody who already understood the needs of the school, but [was] also aware of the local area. That was good, because we had faith in the quality of the person. – *Senior Leader*

Having that level and depth of understanding of the school and its history and context is really helpful. – *Achievement Partner*

The relationship between the school and AP was perceived as the basis on which successful delivery and implementation could occur as so much of Leading Together was facilitated by the AP. Senior leaders valued the fact that the APs were highly credible, experienced leaders and this was echoed by the Project Manager:

Because I am a former headteacher, the connection is there and there is that understanding. That is something that I see with each of the six schools. So, the credibility of the Achievement Partner having been in their shoes...does inform and enforce and strengthen that coaching session. – *Achievement Partner*

The quality of these relationships and the credibility of the AP were important factors that enabled schools to engage effectively in the project and overcome challenges that may have hindered their progress in implementing learning and change.

The independence of the AP and of Leading Together

Senior leaders and APs both valued the fact that the APs and Leading Together were independent, operating outside of the accountability system. The APs, in particular, felt this helped them form open and trusting relationships with schools, because leaders could discuss the challenges and areas for improvement in school and trust the feedback given by the AP without any pressure or fear of judgement:

It wasn't judgemental. It wasn't threatening. They aren't inspecting you. They aren't your line manager. They aren't part of the accountability framework...having that objective person has helped [us] – *Senior Leader*

They like the fact that I am independent. I am not an Ofsted inspector, I am not there to make judgement... they value that independence. - *Achievement Partner*

It's completely supportive that you're not reporting back to anyone on how well they're doing, it's for them and that allows them to be open with you. They're not putting on a show, which can happen at the beginning. - *Achievement Partner*

APs reported that it was important to communicate this and build on their independence from the outset of the project:

Initially in the programme [participants] were a little bit sceptical, because these are schools that are potentially in crisis, that are certainly in difficulties, that have a lot of support thrown at them and they also have a lot of scrutiny. So, we were at pains to say that actually we are not coming in to provide additional pressure. We are coming in to provide professional support and professional development. Recent feedback I have had from schools is that they look forward to me coming in. - *Achievement Partner*

The flexibility and responsiveness of the delivery model and of the AP

As previously discussed in Section 3.1, schools, and the Project Manager, also highlighted the importance of the flexibility and scope for tailoring built into the project's delivery model and the responsiveness of APs to the changing and often challenging circumstances faced by these schools:

Whilst there are central elements and activities, nothing has to be done that way. So, even if there is something a bit more prescriptive, or something that's suggested, you don't have to do it in your school that way. It's context driven, which I think is really important. – *Senior Leader*

The length of the project

Senior leaders and APs believed that the long duration of the project facilitated positive change, as this quotation illustrates:

The fact it's a two-year programme is very powerful, because it enables me as an Achievement Partner to build up those effective relationships with the schools... During the first term, I was building that relationship of trust with them and now I have quite a positive

relationship of trust and over the next 18 months we can build on that positive relationship that has developed through coaching. – *Achievement Partner*

The evidence-based nature of the project, applied to context

Senior leaders and APs also commented that the project's clear grounding in research, with clear application to individual school context, facilitated positive change:

I think the content of the modules is excellent, because it is really founded in current research...We always try to provide case studies of schools that are in similar contexts to the schools we are working with so they can see how it has been implemented. So it's not an abstract concept that is not tied to any practice. – *Achievement Partner*

3.4.2 Factors related to the school climate/context

Four key school context-level factors emerged as important influencers on the effective delivery of Leading Together and the implementation of learning from it:

- headteacher commitment
- management of resistance to change
- individual capacity and workload
- clarity of vision and desired outcomes.

These are discussed in more detail below.

Headteacher commitment

Headteacher commitment was believed to be vital in enabling effective delivery and implementation of learning. The APs and Leading Together Project Manager observed that headteacher commitment was key in facilitating both the engagement of the school in the project and the practical delivery of Leading Together activities. Where headteachers were fully committed, interviewees felt schools got the most out of the project whereas, if the headteacher was less engaged, it was perceived as less successful:

I think where headteachers are really bought in and engaged from the beginning, we're able to move forward more quickly. Sometimes it takes time to build that relationship. – *Project Manager*

Staff wise, they were ready. I think what [my staff] saw instantly is I knew what I was doing and they trusted me and then that filtered down. – *Senior Leader*

The headteacher was often perceived as the conduit for ensuring individual senior leaders understood the value of taking part and were willing to take on new ideas and try new approaches. Their commitment was also helpful for overcoming practical barriers to engagement such as limited capacity or high workload. For example, some headteachers used the Learning Pot fund to release senior leaders from other responsibilities including teaching in the classroom, which created the dedicated time they needed to fully commit to, and participate in, the project.

The Project Manager, APs and senior leaders were in agreement that headteacher commitment set the tone for how invested the school was as a whole. This was particularly important for maintaining engagement and progress during the Covid-19 pandemic. One AP commented:

[The headteacher has] been very good at then taking the mitigation and moving forward with it. His expectation of his team is, we will do this and we will override this so that Leading Together can be the success that we want. – *Achievement Partner*

Some schools also explicitly sought the involvement of their Trust, federation and/or governing body. Where this occurred, senior leaders and APs felt this was helpful because these bodies supported and encouraged senior leaders to participate in the project and held senior leaders accountable as to how their Leading Together work was contributing to school improvement:

A factor that's really helped has been the involvement and the level of understanding of the governing body and the desire of the governing body to be involved in the programme as much as they can. – *Achievement Partner*

We continued to have fluent communication and there would be times when, understandably, I was being held to account by the Trust, in terms of the understanding and the impacts of the programme. – *Achievement Partner*

Management of resistance to change

In some schools, a lack of willingness to commit to the changes instigated by Leading Together by non-participating teachers was a barrier to delivery and implementation:

Some staff...didn't want to buy-in, some staff [have] been tricky to manage. Some staff [have] been tricky to hold to account and that has made sometimes the pace of the implementation that the leaders wanted slower than they would have wanted. That's been the major difficulty for them. – *Achievement Partner*

Schools used a variety of approaches to overcome staff resistance, including: AP-led whole-school training; disseminating changes through middle leaders; drip-feeding changes; and including non-participating staff in the design of new approaches and materials. See box 4 for an example.

Box 4: Tackling non-participating teachers' resistance to Leading Together

At case-study school D (a primary school), there was initially resistance to implementing change among a minority of teachers and support staff who were not participating in Leading Together. One senior leader commented: "I think nobody likes change. I think also the staff team had been so well established at [the school] for many, many years that everybody had become stuck in their ways a little bit...I think initially people felt quite threatened".

To overcome this, the senior leaders and APs used whole-school training sessions to improve staff understanding of the rationale behind the changes being implemented and the knowledge and skills needed to achieve these changes. At times, senior leaders had to take a firm approach with staff but, at the time of interviewing, felt that they had a staff team who were committed to implementing change.

"As staff became more aware, more informed themselves, you heard people saying things like, 'I can't believe I used to do what I used to do.'" – *Senior Leader*

Individual capacity and workload

The range and number of activities in Leading Together require a considerable time commitment from participants. Not all of the support is mandatory for all individuals, but Teach First expect all schools to send at least one person to every learning module session. APs co-ordinate the events and coaching support in their areas. This was reported to be time consuming and challenging due to the demands on, and commitments of, schools although generally manageable:

It's easy to assume it's a bit simpler than it is in practice [but it's hard], because schools are so busy...One of our schools, it took a while to be able to get in regularly, because they were so busy and swamped. They wanted to engage, but they almost didn't have the

capacity to even just make sure that they could send an email about when to meet. - *Project Manager*

APs and senior leaders were in agreement that the capacity and workload of individual senior leaders at times inhibited the pace at which Leading Together could be effectively delivered and implemented in schools. Some senior leaders found it difficult to step away from their day-to-day responsibilities and activities in order to engage with Leading Together and spend time thinking strategically. Personal circumstances, and changes in these circumstances such as caring responsibilities, also influenced the capacity individuals had to take part. This was exacerbated during the pandemic as many teachers and leaders experienced increasingly demanding personal circumstances, for example, managing their own children's remote learning.

The capacity and workload of non-participating teachers also had an important influence on how well learning and changes to practice were implemented. One non-participating teacher commented:

You're racing against the clock... Sometimes trying to implement new things when you're in the middle of trying to do your daily tasks can seem overwhelming.

Some senior leaders reported that their APs streamlined their delivery to better suit their individual capacity. One senior leader commented:

But our AP has been brilliant and will highlight, 'This is the reading that is the most important, if you've got time to do the other that's great as well. But these are the ones that are going to be most beneficial and we're going to use in the training'.

Clarity of vision and desired outcomes

The schools and APs found that having a clear vision of what the school and individual participants wanted to achieve through Leading Together from the outset was key to enabling effective delivery and implementation. This underpinned how the rest of the support was tailored to meet their needs. One AP commented:

The key thing is to have a strong leadership team that have a really clear vision for their school and where they want it to go and how they are going to achieve it. All the different aspects of the programme are directed towards that.

Having a key common goal, as well as clear individual goals and identified benefits, appears to have helped unify leadership teams, and contributed to a better team

dynamic. APs found that this clarity was key to schools' and individuals' commitment to the project:

The principal's vision and his commitment to the programme has been the main driver for Leading Together being successful within the academy...The head absolutely knew why he was doing Leading Together, absolutely knew what he wanted to get out of it. – *Achievement Partner*

They were on a journey and were determined to be a good school at the next Ofsted, so there is a drive there within the school, that they want to achieve that. – *Achievement Partner*

The evidence also suggested that such clarity typically filtered down to non-participating teachers, helping them to understand why new strategies and practices were being implemented in their school.

3.4.3 Factors related to the Covid-19 pandemic

Disruption caused by the Covid-19 pandemic, and the move to remote working, were the most significant external factors schools and the Leading Together project had to navigate. After March 2020, schools had to respond to changing infection-control measures and unpredictable disruptions (such as teachers and pupil 'bubbles' having to self-isolate at home, and provision of remote teaching and learning). The pandemic impacted staff and pupils differently depending on their professional and personal circumstances, with some pupils' support needs escalating dramatically:

In an area that's challenged...it's more difficult to adapt there, because you've got larger numbers of hard-to-reach families. It's more challenging for schools in challenging areas, because of the lack of access to technology, the lack of engagement of parents. – *Achievement Partner*

This necessitated schools dedicating lots of time and resource to responding to these challenging circumstances. As a result, at times it limited the capacity of schools and individuals to engage with Leading Together, or slowed the delivery and implementation of some aspects of the project:

We've had to become reactionary. – *Senior Leader*

One consequence of Covid has been that programme members...have found it harder to be released from their normal

teaching duties as frequently as they would have done prior to Covid... It has been harder to get that extended leadership team around the table. – *Achievement Partner*

When I look back and I think about the engagement of the school considering everything that they've had to manage, their engagement has continued to be high. But once we hit Covid...I think that's when some of the leaders didn't engage as much as when we didn't have Covid. – *Achievement Partner*

Schools and APs worked to adapt to the circumstances and identify how they could continue progressing with Leading Together alongside the challenges of the pandemic. They broadly appeared to adapt well. Practically, the pandemic and associated restrictions required schools and APs to shift to operating remotely which, as previously discussed, impacted how the project was delivered. This shift to remote working impacted some aspects of the project more than others, such as collaboration between schools:

It has maybe hindered and delayed some of the operational sides... It's had an impact on the practicality of the programme, but we've done what we can to make it work. – *Senior Leader*

I think there isn't the level of interaction and level of cross-school fertilisation, if you like, when you're working virtually. The virtual nature of this has impacted on that. – *Achievement Partner*

To manage and mitigate the impacts of this disruption, schools and APs took advantage of the project's flexibility and revised their approach, tailoring it to these exceptional circumstances. See box 5 for an example.

Box 5: Mitigating the impact of Covid-19 on Leading Together

To alleviate the immediate pressure caused by the onset of the pandemic, the headteacher in case-study school D (a primary school) and their AP agreed to postpone some of the learning modules and schedule them for delivery in the spring term of 2021. The AP explained that “with Covid what I do with all of my schools is I review frequently where we're at with the programme and then plan ahead, with the headteacher, the remaining weeks and sessions of the programme, in order to constantly revise the priorities for my team”.

This AP met with the headteacher at the beginning of the second period of partial school closures (January to March 2021) to reflect on which aspects of the project had been

delivered, which aspects had been delayed, the implications of this and what ought to be the priorities in terms of school improvement for the remainder of project. The AP explained: “we tailored the Leading Together programme more to provide support for the school's immediate priorities and away from some of the organisational priorities, the pre-set programme priorities”.

In summary, the AP commented: “the short answer is it's being able to have flexibility with the programme, that's been a strategy that I've been able to apply”.

4 Outcomes and impacts of the provision

This section considers the contribution of the Leading Together project to the TLIF project's intended outcomes and impacts, and to a range of bespoke project outcomes (see Appendix A and Table 2). It draws on survey data to report changes from baseline to endpoint on a number of measures and secondary analysis of SWC data to report changes in teacher retention and progression. These findings are supported by qualitative data, which adds insight into different stakeholders' perceptions of the outcomes of the project, and provides context for the interpretation of outcomes.

The analysis of impacts using the SWC utilises a comparison group design. This enables us to estimate counterfactual retention and progression outcomes for teachers, and infer whether or not changes in teacher retention and progression might have come about in the absence of Leading Together. However, we did not adopt a comparison group design for the survey. We measured changes between baseline and endpoint in participants' views and experiences. This means that, while we can show an association between the project and observed outcomes, we cannot provide evidence to support a causal link. It is possible that any reported outcomes might still have come about in the absence of the project.

4.1 Context for interpretation of outcomes

Although we have attempted to collect comparable fund-level outcome data for all TLIF projects, in practice the projects' intentions with regard to achieving these outcomes, differed. The Leading Together project attempted to achieve most of the fund-level outcomes, but not reduced exclusions. This should be borne in mind when interpreting the outcomes reported below.

4.2 Context for interpretation of impacts

The Leading Together project attempted to achieve fund-level impacts to improve teacher retention and progression, and also improve pupil attainment at Key Stage 2 and GCSE. It is also worth highlighting that pupil impacts are explored via teacher perceptions conveyed in survey responses, rather than attainment data, which was unavailable for the respective cohorts due to the Covid-19 pandemic.

4.3 Observed outcomes

In analysing the survey data presented in this section, we used a statistical technique called factor analysis that summarised information from a number of items asked in both the baseline and endpoint surveys into a smaller set of reliable outcome measures. By

exploring whether there were statistically significant changes in the mean scores of these factors between baseline and endpoint¹², we could explore whether the Leading Together project had had an impact on the participating senior leaders. This allowed for a more robust and straightforward analysis than comparing single items from the surveys. The factor analysis was based on a matched analysis of the same respondents who answered at both baseline and endpoint. In instances where individual survey items were deemed to be particularly noteworthy, these are reported separately. Due to the relatively small underlying number of respondents in the matched analysis, it was not possible to undertake subgroup analysis (for example to explore any variations in impact by phase, or years in teaching), and some caution should be exercised in interpreting the findings. Further information about how the factors were constructed can be found in Appendix F.

The survey findings are supplemented with the findings from qualitative case-study interviews with senior leaders, APs, and non-participating teachers as well as additional interviews with APs and the Project Manager.

4.4 TLIF and bespoke project outcomes and impacts

The table below details the **outcomes** (most of which we expected to see earlier i.e. within a year of project involvement) and **impacts** (which take longer to realise) that the Leading Together project intended to achieve.

Table 2 Intended outcomes and impacts of the Leading Together Project

Senior Leaders: Outcomes and impacts	Outcome or Impact
<p>Improved quality of senior leadership</p> <ul style="list-style-type: none"> • Confidence, knowledge and skills in effective leadership and management 	Outcome
<p>Satisfaction and retention of participants</p> <ul style="list-style-type: none"> • Level of satisfaction • Motivation/likelihood to stay in profession 	<p>Outcome</p> <p>Outcome</p>

¹² Results were considered statistically significant if the probability of a result occurring by chance was less than five per cent ($p = < 0.05$).

Schools: Outcomes and impacts	Outcome or Impact
<p>Improved</p> <ul style="list-style-type: none"> • Quality of leadership at all levels • Culture of continuous improvement, challenge and support • Priority setting (on the right areas e.g. assessment, curriculum, behaviour) and effective implementation of change • Quality of CPD (and tailoring) • Uptake of CPD (barriers removed) • Quality of teaching e.g. changes in other teachers' practice • Capacity and demand for CPD/sustainable change • Tailored, local and sustainable CPD offer available for teachers and leaders in schools in challenging areas and circumstances 	<p>Outcome</p> <p>Outcome</p> <p>Outcome</p> <p>Outcome</p> <p>Outcome</p> <p>Outcome</p> <p>Outcome</p> <p>Outcome</p>
<p>Leader and teacher retention and progression</p> <ul style="list-style-type: none"> • Improved senior leader and teacher retention • Improved senior leader progression (though not in TOC) 	<p>Impact</p> <p>Impact</p>
Pupils: outcomes and impacts	Outcome or Impact
<ul style="list-style-type: none"> • Increased pupil attainment at Key Stage 2 and GCSE • Improved pupil social mobility via exploring the attainment of pupils eligible for free school meals <p>(comparing the attainment of pupils in intervention schools to comparison group schools)</p>	<p>Impact</p> <p>Impact</p>

The following section reflects on the intended outcomes thematically, and draws on the factor analysis, which was conducted in two stages. First, it was conducted on the core fund-level question items that were asked of all respondents in exactly the same way. This resulted in Factors 1 to 4 for all respondents (see Appendix F). Second, it was conducted on core fund-level question items that covered consistent themes, but where the wording, or the inclusion of items, varied slightly depending on the role of the respondent (middle leaders, senior leaders or other roles). This resulted in Factors 9 to 12 for middle leaders and Factors 13 and 14 for senior leaders¹³ (see Appendix F). The Leading Together survey included questions for middle leaders, senior leaders and those with 'other' roles (e.g. business managers). The fund-level factors are reported in Section

¹³ Some of the participants of other TLIF projects were classroom teachers. Factors 5-8 relate to questions for classroom teachers but, as Leading Together did not have any participants who were classroom teachers, these factors are not included in this report.

4.4.2. A detailed description of the factor analysis undertaken can be found in Appendix F, and the summary results are shown below in section 4.4.2 and in Table 4 below.

The Leading Together survey also included various questions and items that were bespoke and specific to the project's focus on the quality of leadership to measure project-level outcomes. Quantitative analysis included factor analysis of these items, which resulted in three project-level outcome measures (Factors 15 to 17) (see Appendix G), which are reported in Section 4.4.1 below.

All of the analysis focused on comparing participants' survey responses at baseline and endpoint to explore whether there had been a shift in views over the time period of the Leading Together evaluation. Factor outcome measures are reported by comparing the mean score on the eight-point response scale at the two time points. Where appropriate, findings from qualitative interviews with APs, the Project Manager and the case studies are included.

4.4.1 Participants' views on key outcomes related to the aims of Leading Together

Project-level factors were created to explore the extent to which Leading Together was making progress towards its intended outcomes. Respondents were asked to rate a series of items on a scale of one to eight, where one was 'Strongly Disagree' and eight was 'Strongly Agree'. The responses were then converted into a point score, with 'Strongly Disagree' being worth -4.0 points, and 'Strongly Agree' +4.0 points for each item. The resulting score range for each factor is shown in Table 3 (based on the number of items in the factor; see Appendix G). A mean score was then calculated, and compared between baseline and endpoint. The approach was repeated for the other factors in this section. For a full description of the analyses undertaken, please see Appendix F.

The results of the factors specific to the Leading Together project are shown in Table 3 below. There was a **significant improvement across all three identified outcomes: participants' confidence as a school leader, their confidence in how to support pupils to learn and their personal leadership skills.**

Table 3 Findings from the Leading Together project-level factor analysis

Factor	Range: Minimum	Range: Maximum	Mean Score: Baseline	Mean Score: Endpoint	Mean Score: Change	Number of respondents *	Statistically significant change (p = < 0.05)
Confidence as a leader	-44	44	25.41	32.56	7.15	86	Yes (positive)
Supporting pupils to learn	-10	16	10.45	13.05	2.60	86	Yes (positive)
Personal leadership skills	-22	32	16.69	23.92	7.23	86	Yes (positive)

*The respondent with the role of 'classroom teacher' was routed out of the survey as the project is for ML and SL. Supporting data behind this table can be found in Appendix G. Due to the relatively small number of responses at endpoint for cohort 1 and cohort 2, the results should be interpreted with a degree of caution¹⁴.

These findings are discussed further alongside the qualitative evidence below.

Confidence as a leader

The case-study evidence echoed the survey findings, suggesting that participants' confidence as leaders had improved notably. Schools and APs were in agreement that Leading Together had empowered senior leaders both as a team and as individuals, as demonstrated by the selection of quotations below:

They've got such confidence now that certainly they're able to flourish
– *Senior Leader*

One of the many strengths of... Leading Together is that it empowers school leaders and develops confidence within them to solve their own difficulties, their own problems. – *Achievement Partner*

I would say now what I see from the Senior Leadership Team is ambition, high expectations, determination, real confidence, and belief that they can make a difference. That's a huge shift from where we were two years ago. – *Achievement Partner*

¹⁴ As noted in the method section, although there was a relatively small number of matched respondents at baseline and endpoint, it was still possible to compare average factor scores at baseline and endpoint using a paired-sample T test. The analysis was underpowered.

This increased confidence among participating leaders seemed to be apparent to the rest of the school too, as one non-participating teacher observed: “We have a very confident SLT [senior leadership team] now”.

Leading Together appeared to have particularly supported senior and middle leaders who were new to their role and/or the school to build confidence and resilience as they embedded themselves into their roles:

One of our members... who was very new to leadership and still quite early into their career, their confidence through the programme has just increased dramatically, to the point where even our AP has passed comments about he couldn't believe the difference in this person.– *Senior Leader*

Confidence supporting pupils to learn

While the case-study evidence supported the findings that confidence supporting pupils to learn improved among participating leaders, it suggested that this looked different for senior leaders compared to middle leaders.

As would be expected, senior leaders reported that they had developed their confidence in incorporating strategic approaches to supporting pupils' learning as part of whole-school development priorities. They also reported that they had developed the knowledge and skills (such as curriculum design and internal monitoring and evaluation of progress) needed to achieve this and were more confident using evidence and implementing evidence-based approaches. The learning modules, particularly the science of learning module, had developed their understanding of their pupils' learning perspectives:

Their knowledge and expertise around curriculum design, planning and the science of learning from the children's perspective has gone through the roof – *Senior Leader*

We started to take on evidence-based approaches to changes that we wanted to make in school. We could support with evidence, which we probably wouldn't have done prior to being on the programme. – *Senior Leader*

Among middle leaders, improvements in confidence and underpinning knowledge and skills appeared more directly related to their subject leadership and implementing change in classroom practice. Some senior leaders observed that, as a result of the project, their middle leaders now better understood, and felt more confident in their ability to support, pupils' learning beyond their own classroom:

In terms of understanding teaching and learning and the science of learning and the latest evidence-based practice, I think that's really supported not only their classroom practice, but also their understanding for their subject and what would be best in terms of leading teaching and learning within English or Maths. – *Senior Leader*

Certainly, for her, I would say the biggest difference is that shift from beyond her own classroom and seeing the benefits that can come from supporting beyond your classroom and the impact it can have on yet even more children. – *Senior Leader*

[He sees] his role, I think, in a much bigger and wider context of school life, rather than just his classroom and his subject. He now sees the impact that he's able to have across the school, because he's got the knowledge and skills of leadership.- *Senior Leader*

Personal leadership skills

There appeared to be two main ways in which individual leaders developed their personal leadership skills: developing their approach to leadership or leadership style; and building the knowledge and skills base needed for effective leadership.

As part of Leading Together, participants spent time exploring what constitutes effective leadership, understanding their own leadership style, and developing the knowledge and skills needed to build on and improve these skills. One AP commented:

It's developing...a deeper understanding of what effective leadership is all about and looks like and in terms of the principles which underpin it [that] has been really helpful in shifting the approach of those middle leaders. – *Achievement Partner*

Leaders and APs were in agreement that this had helped leaders improve their ability to delegate effectively and share leadership responsibilities, particularly in terms of utilising middle leaders effectively:

My leadership has developed in a couple of ways in terms of that distributed leadership and really understanding the impact others can have and not controlling them... I think it's allowed me to give people permission to lead themselves, rather than come and ask me the question. I think that's been a clear impact on my leadership. – *Senior Leader*

I now have this really clear routine of making sure that everyone is clear on expectations, getting that consistency in the message, having this period of monitoring and checking, but then starting to pass that on so that it's middle leaders or teachers to take ownership. I move more into a monitoring point of view. – *Senior Leader*

Some leaders also changed their style of leadership and improved their interpersonal management skills, often adopting a more open, coaching style. Non-participating teachers noticed the biggest shift among middle leaders and were positive about these changes, appreciating the increased transparency and supportiveness of their approach. It is likely that this observation was, at least in part, due to classroom teachers having more direct day-to-day contact with middle leaders than senior leaders:

I think the direct impact has been that they are better listeners. They are becoming better coaches of themselves and of each other and the wider teams within the academy. – *Achievement Partner*

I really like their coaching style of leadership – *Non-participating Teacher*

The learning modules, coaching and other forms of CPD supported the participating leaders to build a more rounded knowledge and skills base for their leadership, particularly for the leaders who were new to their middle or senior leadership role:

Some who were completely new to the Senior Leadership Team and several of our leaders were new to leadership roles. So the knowledge for them was all new learning, which was great. – *Senior Leader*

My knowledge and understanding of all of the factors that constitute effective leadership, whether it's making data decisions or whether it's certainly from the governance, the legal compliance, that was an element that I had had very little training on. That was good and the budget and financing. – *Senior Leader*

4.4.2 Findings related to fund-level goals - outcomes

In addition to questions/items that directly related to the aims of the Leading Together project discussed above, cross-cutting fund-level factors were also created to explore the extent to which Leading Together contributed to fund-level goals. The same approach was used as outlined above for the project-level factors (Section 4.4.1; for a full description of the analyses undertaken, please see Appendix F). A summary of the

findings from the factor analysis is detailed in Table 4 below. The table also highlights where there was a statistically significant change between baseline and endpoint.

There were six significant positive findings:

- an **improvement in the effectiveness of school leadership** among all participants
- an **improvement in the effectiveness of professional development** among all participants
- a **perceived improvement in the effectiveness of school culture** among all participants
- an **improvement in personal knowledge for effective teaching** among middle leaders
- a **perceived improvement in school teaching quality** among middle leaders
- a **perceived improvement in school teaching quality** among senior leaders.

All of these factors relate to the aims of the Leading Together project, as well as to the goals of the fund, and provide support for the project’s ToC (see Appendix A). The remaining fund-level factors had small positive or negative changes between baseline and endpoint, all of which were non-significant.

Table 4 Findings from the fund-level factor analysis

Factor	Range: Minimum	Range: Maximum	Mean Score: Baseline	Mean Score: Endpoint	Mean Score: Change	Number of respondents *	Statistically significant change (p = < 0.05)
Effectiveness of school leadership (All) (F1)	-52	52	24.19	38.44	14.26	86	Yes (positive)
Effectiveness of professional development (All) (F2)	-28	28	16.21	20.16	3.95	86	Yes (positive)
Effectiveness of school culture (All) (F3)	-24	24	10.21	12.49	2.28	86	Yes (positive)

Factor	Range: Minimum	Range: Maximum	Mean Score: Baseline	Mean Score: Endpoint	Mean Score: Change	Number of respondents *	Statistically significant change (p = < 0.05)
Motivation for professional development (All) (F4)	-8	8	7.00	7.34	0.34	85	No
Personal knowledge for effective teaching (ML) (F9)	-12	12	9.19	10.50	1.31	16	Yes (positive)
School teaching quality (ML) (F10)	-24	24	10.63	15.69	5.06	16	Yes (positive)
Motivation for teaching-focused professional development (ML) (F11)	-8	8	6.50	6.75	0.25	16	No
Opportunities for career progression (ML) (F12)	-8	8	3.13	3.13	0.00	16	No
School teaching quality (SL) (F13)	-28	28	3.88	16.05	12.17	65	Yes (positive)
Opportunities for career progression (SL) (F14)	-8	8	1.47	1.97	0.50	70	No

* After each factor there is a label to indicate the role(s) that the factor is based on: All = all respondents; ML = middle leaders; SL = senior leaders. The items making up each factor (Fx) are detailed in Appendix F.

** The respondent with the role of 'other' was included where possible (Factors 1-4 and Factor 14). The respondent with the role of 'classroom teacher' was routed out of the survey as the project is for ML and SL. Due to the relatively small number of responses at endpoint for cohort 1 and cohort 2, the results should be interpreted with caution ¹⁵.

These findings are discussed in relation to the qualitative evidence below.

Effectiveness of school leadership

Evidence from the case studies is consistent with the survey finding that school leadership had improved overall. In addition to the improvements in personal leadership skills discussed previously, schools felt that improvements in their leadership teams' ways of working had contributed to improved school leadership.

There was consensus across the case studies that schools had developed far clearer roles and responsibilities across their leadership teams which, in some schools, had grown to become extended leadership teams, including middle leaders. School leaders now had clearly defined roles and responsibilities for which they were accountable, and the distribution of these across the extended team had increased the school's overall leadership capacity:

I would say that we've moved from top-down - from senior leaders and staff with year leaders, phase leaders, subject leaders - to an extended leadership team. There is much more involvement of a larger number of leaders within the school. – *Achievement Partner*

I feel that the terms of reference have improved significantly. There's more clarity over what people's roles are and certainly new members of the Senior Leadership Team who have stepped in. – *Achievement Partner*

Non-participating teachers reported that they understood the roles and responsibilities of their leaders better, as well as feeling that the structure of the leadership team had improved.

There was also an improvement in working relationships between leaders, reported by both participating leaders and APs. More effective working relationships allowed leaders to operate as a more cohesive and effective team, described by one AP as "more than the sum of its parts":

¹⁵ As noted in the method section, although there was a relatively small number of matched respondents at baseline and endpoint, it was still possible to compare average factor scores at baseline and endpoint using a paired-sample T test. The analysis was underpowered.

The knock-on effect has been that with each tier of that senior leadership [team]... their mentoring and coaching of each other and their ability to hold each other to account, there's been a cultural shift there. – *Achievement Partner*

We're a tight team. We are clear, focused, driven. We're really passionate. We're excited. It's given a real sense of purpose. – *Senior Leader*

Finally, leaders and APs felt they had been able to develop a clear vision and ethos that aligned with clearly defined development goals and priorities. This allowed leaders to more effectively develop targets and strategies as well giving them the clarity needed to disseminate and implement these effectively across the school:

I think our targets are much more focussed now. Our milestones of how we're going to get to those targets are much clearer and broken down into real step-by-step achievable little milestones... they're very clear now, which they weren't before. – *Senior Leader*

I think there's a clarity. So everything we do links back to the school's priorities and our school values. Any meeting we have is directed towards the key areas. We've got an agenda that's set out and we follow that. – *Senior Leader*

Effectiveness of professional development

The case studies suggested that improving the effectiveness of CPD was only an explicit development priority in some schools. See box 6 for an example. However, in some schools, it appeared that the effectiveness of the CPD offer improved as a product of the work done to upskill leaders and improve their leadership practice, especially among middle leaders. Both senior leaders and non-participating teachers in some schools reported that the clarity and quality of the CPD offered by middle leaders had improved:

The quality of CPD offered by those middle leaders has improved. Again, if you know what you're trying to achieve and you know what your focus and your priority is, it's then easier to do staff training that matches that. – *Senior Leader*

They have a clearer understanding of how to support us [using CPD and through the normal working day] – *Non-participating Teacher*

Box 6: Improving the effectiveness of professional development

The AP attached to case-study school F (a primary school) explained that, at the outset of Leading Together, "their staff CPD had been more - I'd phrase it as scattergun" and that previously the school had tried to address lots of issues in quick succession. The AP used a learning module, alongside coaching, to get leaders to "stop and think about how they were delivering staff professional development and then how they were giving that time to embed and coming back to it and really making sure that it became part of school, rather than rapidly introducing things".

In response, the school worked to develop its CPD, helping staff understand the aims and potential benefits to them as part of the process. A senior leader explained: "We had a whole training session on CPD, the benefits are more important to staff. I think we do offer our staff quite a well-developed CPD programme". Before the pandemic, this CPD project had included opportunities for staff to work with the AP themselves and receive similar training to that received by the senior leaders.

In conclusion, a school senior leader commented: "I think, as a school, we do really value CPD. That's been brought more to the front through the Leading Together programme".

Effectiveness of school culture

APs and non-participating teachers highlighted that some of the case-study schools had created a more open and inclusive school culture as a result of the Leading Together project, particularly in terms of what each member of staff contributed towards the school's improvement work. For example, one non-participating teacher commented "they feedback and involve staff far more". In some schools this appears to have been a deliberate goal for senior leaders, as one AP explained:

One area in which the senior leaders have really shifted their leadership approach has been the focus on culture... being very clear about their own expectations for the culture they intended to develop in the school. And how they would establish that, how they would maintain and sustain that culture and how they would monitor in order to ensure compliance with that culture.

Effectiveness of personal and school teaching quality

There was clear agreement across the case studies that Leading Together contributed to improved teaching and learning in the participating schools. This is consistent with the survey findings:

There's also been a massive step change in the quality of teaching and learning across the school. I would say that the Leading

Together programme has been part of that improvement. –
Achievement Partner

The whole science of learning, the prevalence of the approaches, the kind of task design teachers are using with their planning and lessons is significantly better...Now, we've got 100% of the teachers, the quality of teaching is good and for some it's good with consistent features of outstanding. – *Senior Leader*

Three key changes emerged as underpinning these improvements in teaching quality. The first was the dissemination and implementation of the knowledge and skills gained through the project, especially the learning modules, to fill individual and school-wide gaps. Schools used whole-school training, middle-leader-led CPD and targeted development activities to disseminate critical learning and build the knowledge and skills required among teachers to raise the standard of individual and school-wide teaching practice:

There's this understanding now of the science of learning and why we've made changes in our practice to support pupils to learn, and have that learning embedded. – *Senior Leader*

I would say the content of what's there, in terms of things like the science of learning, understanding governance, and some of the modules that we've had have informed our thinking and changed practice in the school. – *Senior Leader*

Second was the consistent delivery and implementation of evidence-based pedagogy, curriculum, and strategy. Schools were in agreement that middle leaders played an important role in facilitating this. Senior leaders also noted the importance of unity and consistency of their messaging around, and modelling of, this practice:

I'm aware of the senior leaders saying there is this more consistent approach, teachers are more confident with it. There's a very clear school-way of doing things now, which is all very positive. It all makes a difference. – *Achievement Partner*.

We've been quite deliberate. I think sometimes it's that embedding of practice...That whole role-modelling from headteacher through to senior leaders, middle leaders, other leaders and anyone who's delivering training. – *Achievement Partner*.

Finally, schools had improved their monitoring, evaluation, and reflection on teaching and learning quality and were using this to inform future changes. APs reported that participants' approach to quality assuring teaching and learning had become much stronger over the duration of the project:

The English leader carried out a solid audit of provision and an action plan was derived from this. There was a real focus on ensuring that the curriculum was supported by high-quality resources... Everyone was using whole-class reading sessions rather than guided reading sessions. The English leader in the school, certainly, engaged fully with this idea of an evidence-informed approach. – *Achievement Partner*

There's far more discussion, level of reflection, more use of research and evidence. There's more communication. There's more discussion about changes and the implementation of change. – *Achievement Partner*

4.4.3 Findings related to fund-level goals – impacts

This section explores the extent to which the Leading Together project achieved its intended impacts. It measures the impact of the project on teacher retention and progression (through analysis of teacher outcomes in the SWC). It also explores participants' perceptions of the impact of the project on teacher retention and progression, and on pupil outcomes (through analysis of survey responses and qualitative data).

Retention and progression analysis

The evaluation aimed to explore the impact of the Leading Together project on the fund-level goals to improve teacher retention and progression. As outlined previously, the Leading Together project intended to achieve teacher-level and whole-school level impacts. Therefore, this analysis is conducted on Leading Together participating teachers and a matched comparison group of teachers, and on Leading Together participating schools and a matched comparison group of schools.

Propensity score matching was used to match Leading Together participants to comparison schools/teachers on a range of key characteristics, which differed between the teacher and school analyses. Logistic regression modelling was used to estimate the differences in retention and progression outcomes between these two groups. Separate models were used for the teacher-level and school-level analysis. Retention and progression were each analysed in terms of:

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

Teacher retention

The tables below summarise the estimated impact of Leading Together across the four retention measures analysed. We use the descriptor ‘teacher-level’ to describe analyses of all project participants, irrespective of their level of seniority. It is not possible to fully disentangle the effect of the project from other unobserved systematic differences between Leading Together participants and non-participants, so the findings presented below should be interpreted with some caution. While in principle three years of retention outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis.

The teacher-level analyses are presented first, in tables 5-8, followed the by the school-level analyses in tables 9-12.

Retention in the state-funded sector in England

Table 5 Difference in the estimated rate of retention in state-funded teaching in England between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated retention rate in state-funded teaching 1 year after baseline (%)	97.3	90.9	6.4	Yes
Number of teachers	307	2441		
Estimated retention rate in state-funded teaching 2 years after baseline (%)	91.4	84.4	7.0	Yes
Number of teachers	287	2271		

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. While in principle three years of retention outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

Table 5 shows that the Leading Together project was associated with a statistically significant higher rate of retention within the state-funded teaching profession at teacher-level. Treatment teachers were 6.4 and 7.0 percentage points more likely to be retained in teaching one and two years after the baseline date, respectively, than comparison teachers. This suggests that Leading Together had a positive impact on participating teachers' retention to the profession. However, the presence of a significant difference just one year after baseline indicates that there may have been systematic differences between the treatment and comparison samples at baseline that are not accounted for in this analysis. Therefore the results should be interpreted with caution, particularly regarding the magnitude of the impact.

Retention in the same school

Table 6 Difference in the estimated rate of retention in the same school between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated retention rate in the same school 1 year after baseline (%)	98.1	90.0	8.1	Yes
Number of teachers	260	2174		
Estimated retention rate in the same school 2 years after baseline (%)	92.6	84.0	8.6	Yes
Number of teachers	241	2002		

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. While in principle three years of retention outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

Table 6 shows that there was a statistically significant difference in the estimated rate of retention within the same school they were in at baseline between treatment teachers and matched comparison teachers. The estimated retention rate within the same school for treatment teachers was 8.1 percentage points higher for the treatment teachers than for the comparison teachers a year after baseline and 8.6 percentage points two years after baseline. These teacher-level estimates suggest that the project had a positive impact on retention rates. However, it is likely there may have been systematic differences between the treatment and comparison samples at baseline that are not

accounted for in this analysis, thus making it difficult to estimate the actual magnitude of the impact of Leading Together.

Retention in the same local authority

Table 7 Difference in the estimated rate of retention in the same local authority district (LAD) between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated retention rate in the same LAD 1 year after baseline (%)	99.3	93.3	6.0	Yes
Number of teachers	260	2174		
Estimated retention rate in the same LAD 2 years after baseline (%)	96.8	89.3	7.5	Yes
Number of teachers	241	2002		

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. While in principle three years of retention outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

The teacher-level analysis shown in Table 7 reveals a statistically significant difference in the estimated retention rate of teachers in the same local authority district teachers were in at baseline. Treatment teachers had an estimated retention rate 6.0 percentage points higher than comparison teachers one year after baseline, and 7.5 percentage points higher after two years. This suggests that Leading Together may have positively impacted the retention of participating teachers in their local authority district. However, it is likely that systematic differences between the treatment and comparison samples at baseline that are not accounted for in this analysis and so this should be interpreted with caution as previously discussed.

Retention in challenging schools

Table 8 Difference in the estimated rate of retention in challenging schools between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated retention rate in challenging schools 1 year after baseline (%)	99.3	94.4	4.9	Yes
Number of teachers	257	2125		
Estimated retention rate in challenging schools 2 years after baseline (%)	96.8	91.0	5.8	Yes
Number of teachers	235	1939		

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. While in principle three years of retention outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

Table 8 reveals a statistically significant difference between the retention rate in challenging schools for treatment and comparison teachers. Treatment teachers were 4.9 and 5.8 percentage points more likely to remain in a challenging school one and two years after baseline, respectively, than comparison teachers. This is consistent with the finding presented in Table 7 above on teacher retention in the same school. This evidence suggests that Leading Together had a positive impact on the retention rates of participating teachers to schools one and two year after baseline, including among challenging schools. As has been the case throughout the teacher-level retention analysis, the presence of a significant difference just one year after baseline suggests that systematic differences between the treatment and comparison samples are not accounted for in this analysis and so the results should be interpreted with caution.

Retention in the state-funded sector in England

Table 9 Difference in the estimated rate of retention in state-funded teaching in England with and without the treatment at school-level

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated retention rate in state-funded teaching 3 years <u>before</u> baseline	89.3	89.6	-0.3	-	-
Estimated retention rate in state-funded teaching 2 years <u>before</u> baseline	89.5	90.0	-0.5	-	-
Estimated retention rate in state-funded teaching 1 year <u>before</u> baseline	90.2	90.7	-0.5	-	-
Estimated retention rate in state-funded teaching 1 year after baseline	91.1	91.3	-0.1	0.3	No
Estimated retention rate in state-funded teaching 2 years after baseline	91.8	91.9	-0.1	0.4	No
Number of schools	51	462	-	-	-

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. While in principle three post baseline years of retention outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

While the teacher-level estimates suggest that the project had a positive impact on retention rates to the profession, the school-level analysis in Table 9 reveals no statistically significant findings. This finding suggests that the project did not lead to a significant change in the proportion of teachers being retained in schools in state-funded teaching in England relative to those in the comparison group of schools.

Retention in the same school

Table 10 Difference in the estimated rate of retention in the same school with and without the treatment at school-level

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated retention rate in the same school 3 years before baseline	92.0	90.9	1.1	-	-
Estimated retention rate in the same school 2 years before baseline	90.8	91.3	-0.5	-	-
Estimated retention rate in the same school 1 year before baseline	91.0	91.4	-0.4	-	-
Estimated retention rate in the same school 1 year after baseline	91.5	91.9	-0.4	-0.5	No
Estimated retention rate in the same school 2 years after baseline	93.7	93.3	0.4	0.3	No
Number of schools	51	462	-	-	-

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. While in principle three post baseline years of retention outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

Table 10 shows that there was no statistically significant difference in the estimated rate of retention of teachers within the same school they were in at baseline between treatment schools and comparison schools. As the differences are estimated to be very small and not statistically significant, it is unlikely that Leading Together had any significant impact on same-school retention rates.

Retention in the state-funded sector in England

Table 11 Difference in the estimated rate of retention in the same local authority district (LAD) with and without the treatment at school-level

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated retention rate in the same LAD 3 years <u>before</u> baseline	95.1	94.2	1.0	-	-
Estimated retention rate in in the same LAD 2 years <u>before</u> baseline	94.4	94.5	-0.1	-	-
Estimated retention rate in in the same LAD 1 year <u>before</u> baseline	94.3	94.6	-0.3	-	-
Estimated retention rate in the same LAD 1 year after baseline	95.1	94.9	0.2	0.0	No
Estimated retention rate in the same LAD 2 years after baseline	96.0	95.9	0.1	-0.1	No
Number of schools	51	462	-	-	-

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. While in principle three post baseline years of retention outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

Table 11 shows that at school-level there was no significant difference in the estimate rate of retention of teachers in the same local authority they were in at baseline. As the differences are estimated to be very small and not statistically significant, it is unlikely that Leading Together had any significant impact on same-local authority retention rates.

Retention in challenging schools

Table 12 Difference in the estimated rate of retention in challenging schools with and without the treatment at school-level

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated retention rate in challenging schools 3 years <u>before</u> baseline	96.4	95.8	0.5	-	-
Estimated retention rate in challenging schools 2 years <u>before</u> baseline	96.1	96.1	0.1	-	-
Estimated retention rate in challenging schools 1 year <u>before</u> baseline	96.4	95.9	0.4	-	-
Estimated retention rate in challenging schools 1 year <u>after</u> baseline	96.2	96.1	0.1	-0.2	No
Estimated retention rate in challenging schools 2 years <u>after</u> baseline	97.4	97.0	0.5	0.1	No
Number of schools	51	462	-	-	-

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. While in principle three post baseline years of retention outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

As was the case for estimated retention rate of teachers in the same school, Table 12 shows that there were no significant difference in the estimated retention rate of teachers in challenging treatment schools compared to challenging comparison schools. As the differences are estimated to be very small and not statistically significant, it is unlikely that Leading Together had any significant impact on challenging school retention rates.

Overall, these results suggest that the Leading Together project had a positive impact on teacher retention among participating teachers but not among participating schools. Leading Together appears to have helped to retain teachers in the school they were in at baseline, including in challenging schools, as well as in the local authority and teaching profession. However, while these results suggest that the Leading Together project had a positive impact on teacher retention among participating teachers, it is possible that the strength of the estimated effects are somewhat overstated. There may have been systematic differences between treatment and comparison teachers that existed prior to the project that the analysis has not been able to account for (e.g. personality traits, motivation towards CPD). These systematic differences could lead to overestimation of the effect of the project if they are inadequately controlled for (see Appendix C for further discussion). Ultimately, while the estimates in Tables 5 to 8 can be interpreted to suggest that the Leading Together project did indeed increase retention rates for participating teachers, the true effect of the project is likely to be somewhat smaller than the estimates suggest.

Teacher progression

The tables below summarise the estimated impact of Leading Together across the four progression measures analysed. Progression rates 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 or two years of baseline. Senior leaders were excluded from this analysis as, based on this definition, they were not able to progress any further. It is not possible to fully disentangle the effect of the project from other unobserved systematic differences between Leading Together participants and non-participants, so the findings presented below should be interpreted with some caution.

Progression in the state-funded sector in England

Table 13 Difference in the estimated rate of progression in state-funded teaching in England between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in state-funded teaching 1 year after baseline (%)	13.2	7.0	6.2	Yes
Number of teachers	118	1161		
Estimated progression rate in state-funded teaching 2 years after baseline (%)	18.8	9.8	9.0	Yes
Number of teachers	109	1078		

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. While in principle three years of progression outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

Table 13 reveals that there were statistically significant differences in the estimated progression rates of treatment teachers and comparison teachers one and two years after baseline. Treatment teachers had an estimated progression rate 6.2 percentage points higher after one year and 9.0 percentage points higher after two years than the comparison teachers. This suggests that Leading Together supported participating teachers to progress into more senior roles within state-funded teaching. However, the presence of a significant difference just one year after baseline indicates that there may have been systematic differences between the treatment and comparison samples at baseline that are not accounted for in this analysis. Therefore the results should be interpreted with caution, particularly regarding the magnitude of the impact.

Progression in the same school

Table 14 Difference in the estimated rate of progression in the same school between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in the same school 1 year after baseline (%)	13.5	5.9	7.6	Yes
Number of teachers	118	1052		
Estimated progression rate in the same school 2 years after baseline (%)	18.2	8.2	10.0	Yes
Number of teachers	101	927		

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. While in principle three years of progression outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

In terms of progression of teachers in the same school, Table 14 shows that there was a statistically significant difference in estimated progression rates between treatment and comparison teachers. Treatment teachers had an estimated progression rate within the same school 7.6 percentage points higher than baseline after one year and 10.0 percentage points higher after two years than the comparison teachers. Once again, the presence of a significant difference one year after baseline indicates that there may have been systematic differences between the treatment and comparison samples at baseline that are not accounted for in this analysis. Therefore the results should be interpreted with caution, particularly regarding the magnitude of the impact.

Progression in the same local authority

Table 15 Difference in the estimated rate of progression in the same local authority district (LAD) between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in the same LAD 1 year after baseline (%)	13.4	6.1	7.3	Yes
Number of teachers	118	1094		
Estimated progression rate in the same LAD 2 years after baseline (%)	18.9	8.5	10.4	Yes
Number of teachers	106	981		

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. While in principle three years of progression outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

The analysis shown in Table 15 reveals that the difference in the estimated progression rate of teachers in the same local authority district was statistically significant between treatment and comparison teachers. Treatment teachers had an estimated progression rate in their local authority 7.3 percentage points higher after one year and 10.4 percentage points higher two years after baseline than comparison teachers. As was the case for progression in the state-funded teaching sector, this finding suggests that Leading Together supported participating teachers to progress into more senior roles within their local authority. However, the same caveat applies - a significant difference just one year after baseline indicates that there may have been systematic differences between the treatment and comparison samples at baseline that are not accounted for in this analysis. Therefore the results should be interpreted with caution, particularly regarding the magnitude of the impact.

Progression in challenging schools

Table 16 Difference in the estimated rate of progression in challenging schools between treatment and comparison teachers

Retention Rate Measured	Treatment teachers	Comparison teachers	Difference	Statistically significant?
Estimated progression rate in challenging schools 1 year after baseline (%)	13.7	6.2	7.6	Yes
Number of teachers	118	1078		
Estimated progression rate in challenging schools 2 years after baseline (%)	18.5	8.4	10.1	Yes
Number of teachers	102	957		

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. While in principle three years of progression outcomes are observed, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison teachers.

Table 16 shows that there were statistically significant differences in the estimated progression rate of treatment teachers versus comparison teachers in challenging schools. Treatment teachers in challenging schools had an estimated progression rate of 7.6 percentage points higher than comparison teachers one year after baseline and 10.1 percentage points higher after two years. This finding aligns with the analysis presented above in Table 15, which suggests that Leading Together supported participating teachers to progress to more senior roles in challenging schools as well as less challenging schools. However, the presence of a significant difference just one year after baseline indicates that there may have been systematic differences between the treatment and comparison samples at baseline that are not accounted for in this analysis. Therefore the results should be interpreted with caution, particularly regarding the magnitude of the impact.

Progression in the state-funded sector in England

Table 17 Difference in the estimated rate of progression in state-funded teaching in England with and without the treatment at school-level

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated progression rate in state-funded teaching 3 years <u>before</u> baseline	5.6	5.0	0.6	-	-
Estimated progression rate in state-funded teaching 2 years <u>before</u> baseline	6.5	4.9	1.5	-	-
Estimated progression rate in state-funded teaching 1 year <u>before</u> baseline	2.8	3.8	-0.9	-	-
Estimated progression rate in state-funded teaching 1 year <u>after</u> baseline	2.8	3.7	-0.9	-1.3	No
Estimated progression rate in state-funded teaching 2 years <u>after</u> baseline	3.2	3.2	0.0	-0.4	No
Number of schools	50	460	-	-	-

Note: Estimated progression rates are the average predicted progression rates from a logistic mixed-effects regression model for treatment and comparison schools, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of these differences is assessed at the five per cent level. While in principle three post baseline years of progression outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

The analysis found no statistically significant difference in the estimated progression rate of teachers in state-funded teaching in treatment schools and comparison schools one or two years after baseline, as shown in Table 17. As the differences are estimated to be very small and not statistically significant, it is unlikely that Leading Together had any significant impact on the rate at which teachers were retained in the profession.

Progression in the same school

Table 18 Difference in the estimated rate of progression in the same school with and without the treatment at school level

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated progression rate in the same school 3 years <u>before</u> baseline	4.7	4.3	0.5	-	-
Estimated progression rate in the same school 2 years <u>before</u> baseline	5.6	4.2	1.4	-	-
Estimated progression rate in the same school 1 year <u>before</u> baseline	2.1	3.1	-1.0	-	-
Estimated progression rate in the same school 1 year after baseline	2.3	3.0	-0.7	-1.0	No
Estimated progression rate in the same school 2 years after baseline	2.9	2.5	0.4	0.1	No
Number of schools	50	458	-	-	-

Note: Estimated progression rates are the average predicted progression rates from a logistic mixed-effects regression model for treatment and comparison schools, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of these differences is assessed at the five per cent level. While in principle three post baseline years of progression outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be

statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

Table 18 shows that there were no statistically significant differences in the estimated progression rates of teachers within the same school between treatment and comparison schools, either one or two years after baseline. This indicates that the apparent effect observed at teacher-level was diluted at school-level. As the differences are estimated to be very small and not statistically significant, it is unlikely that Leading Together had any significant impact on same-school progression rates.

Progression in the same local authority

Table 19 Difference in the estimated rate of progression in the same local authority district (LAD) with and without the treatment at school-level

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated progression rate in the same LAD 3 years <u>before</u> baseline	5.0	4.4	0.5	-	-
Estimated progression rate in in the same LAD 2 years <u>before</u> baseline	5.8	4.4	1.4	-	-
Estimated progression rate in in the same LAD 1 year <u>before</u> baseline	2.1	3.3	-1.2	-	-
Estimated progression rate in in the same LAD 1 year after baseline	2.5	3.2	-0.7	-1.0	No
Estimated progression rate in in the same LAD 2 years after baseline	3.0	2.8	0.2	-0.1	No
Number of schools	50	460	-	-	-

Note: Estimated progression rates are the average predicted progression rates from a logistic mixed-effects regression model for treatment and comparison schools, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of these differences is assessed at the five per cent level. While in principle three post baseline years of progression

outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

As was the case for progression in the state-funded teaching sector, while the teacher-level estimates suggest that the project may have had a positive impact on progression rates, this effect is diluted at school-level. Table 19 shows that there were no statistically significant differences in the estimated progression rate of teachers in the same local authority one or two years after baseline between treatment schools and comparison schools. As the differences are estimated to be very small and not statistically significant, it is unlikely that Leading Together had any significant impact on same-local authority progression rates.

Progression in challenging schools

Table 20 Difference in the estimated rate of progression in challenging schools with and without the treatment

Retention Rate Measured	Treatment group	Comparison group	Difference	Difference-in-difference	Statistically significant?
Estimated progression rate in challenging schools 3 years <u>before</u> baseline	5.1	4.5	0.7	-	-
Estimated progression rate in challenging schools 2 years <u>before</u> baseline	5.9	4.4	1.5	-	-
Estimated progression rate in challenging schools 1 year <u>before</u> baseline	2.4	3.4	-1.0	-	-
Estimated progression rate in challenging schools 1 year after baseline	2.3	3.2	-0.9	-1.3	No
Estimated progression rate in challenging schools 2 years after baseline	3.0	2.7	0.3	-0.1	No
Number of schools	50	460	-	-	-

Note: Estimated progression rates are the average predicted progression rates from a logistic mixed-effects regression model for treatment and comparison schools, controlling for observed characteristics. The difference in average predicted progression rates is the marginal effect. Statistical significance of these differences is assessed at the five per cent level. While in principle three post baseline years of progression outcomes could be observed in this analysis, sample sizes three years after baseline were too small to be statistically reliable and so are omitted from the analysis. Due to rounding, some estimated marginal effects may not exactly equal the difference between treatment and comparison schools.

As was the case for progression in the same school, the apparent positive impact suggested by the teacher-level estimates is diluted at school-level. Table 20 reveals that there were no statistically significant differences in the estimated progression rate of teachers in challenging schools between treatment and comparison schools. As the differences are estimated to be very small and not statistically significant, it is unlikely that Leading Together had any significant impact on challenging school progression rates.

Overall, this analysis suggests that Leading Together supported participating teachers to progress into more senior roles but that this impact was not observed at the school level. These findings suggest that some teachers who have taken part in Leading Teacher have successfully secured progression opportunities in their school, including challenging schools. The analysis also suggests that Leading Together supported participating teachers to secure progression opportunities more widely both in their local authority and nationally within the state-funded teaching sector. However, as was the case for the retention analysis discussed previously, it is possible that the strength of the estimated effects in Tables 13 to 16 are somewhat overstated. There may have been systematic differences between treatment and comparison teachers that existed prior to the project that the analysis has not been able to account for (e.g. personality traits, motivation towards CPD). These systematic differences could lead to overestimation of the effect of the project if they are inadequately controlled for (see Appendix C for further discussion). Ultimately, while the estimates in the teacher-level progression analysis can be interpreted to suggest that the Leading Together project did indeed increase progression rates for participating teachers, the true effect of the project is likely to be somewhat smaller than the estimates suggest.

Interpretation of retention and progression findings

The SWC retention analysis provides evidence that Leading Together may have achieved its aim of improving teacher retention among participating teachers in English state schools, their baseline schools, challenging schools, and their local authority districts. The qualitative evidence aligns with these findings. Some leaders and APs reported that, during the Leading Together project, staffing had stabilised, particularly among leaders. However, in a few schools, Leading Together may have prompted some staff turnover. In these schools, leaders worked to ensure all staff were aligned to the vision and ethos of the school, as well as the changes being implemented to improve

teaching and learning. Not all staff favoured this, however, and in a few instances elected to move on. This may help explain why Leading Together does not appear to have impacted the retention of teachers at school level.

Similarly, the SWC progression analysis suggests that Leading Together has been successful in its aim to support teacher progression though, as was the case in the retention analysis, this impact appears to have occurred among participating teachers and not across participating schools. Although the survey evidence did not show a significant change in middle or senior leaders' perceptions of the opportunities for career progression, evidence from the qualitative interviews aligns with the SWC finding that Leading Together supported participating teachers to progress. Some APs and senior leaders noted that the growth among their senior leaders in terms of knowledge, skills and practice meant that they were ready to progress into more senior roles. For example, one senior leader felt that Leading Together had contributed to her obtaining a promotion in school:

I believe it's a significant factor in me having the confidence to become a headteacher to go for that post and that role.

At other schools, leaders had not necessarily sought out promotion but the AP and senior leaders noted that these leaders had great potential to become successful senior leaders and headteachers in the future when they elected to move on to a new opportunity. The project also appeared to have prompted some middle leaders to think about their future progression and whether they would like to progress to senior leadership:

Because of the quality of the programme, the speed that their leadership skills have developed is extraordinary. I'd say within 18 months you've got two very capable potential headteachers. I could see they had it in them. – *Senior Leader*

It's definitely inspired those middle leaders to think more - not all of them, but definitely some of them - to think more about that leadership and their future. – *Senior Leader*

Taken collectively, the evidence indicates that Leading Together may have achieved its aim to improve teacher retention and support teacher progression to some extent by supporting leaders to grow their knowledge, leadership skills and leadership practice. Leading Together appeared to have an impact exclusively among participating teachers. However, caution is needed interpreting this finding as it is not possible to fully disentangle the effect of the project from other non-observed systematic differences between treatment and comparison teachers. While the SWC analysis teacher-level estimates can be interpreted to suggest that Leading Together has indeed increased

retention and progression rates among participating teachers, the true effect of the project is likely to be somewhat smaller than the estimates suggest.

4.4.4 Findings related to fund-level goals – wider outcomes

Not all TLIF projects set out to meet each of the wider TLIF outcomes. However, Leading Together was designed to ultimately lead to improvements in: Ofsted rating; CPD capacity, demand, and offer; and pupil attainment and social mobility (through improved quality of teaching, learning and leadership). It was not, however, designed to lead to reductions in exclusions.

This section explores the extent to which the project was on course to achieve these longer-term impacts. The findings are based largely on qualitative perceptions data, which are therefore only indicative.

Perceived impacts on pupils

As reported earlier, most interviewed leaders, teachers and APs reported that the project had helped to improve teaching and leadership practice. Most felt these improvements would eventually lead to improved pupil outcomes, with many reporting they had already begun to have an impact on their pupils. However, senior leaders and APs were careful to acknowledge that it was challenging to distinguish the impacts of Leading Together from the impacts of other work and initiatives being implemented in school. Furthermore, the pandemic heavily disrupted pupils' learning from March 2020 onwards, and the impacts of this may have masked the impacts pupils may have otherwise experienced as a result of the programme.

The pupil impacts reported by case-study interviewees varied widely depending on the specific aims and objectives set by their schools. However they fell into two broad themes: pupils' learning and academic outcomes; and pupils' behaviour and attendance. See box 7 for a full example.

Box 7: Impact of Leading Together on pupils

At case-study school B (a secondary school), the senior leader and AP agreed that Leading Together had contributed to improvements in the quality of teaching and learning, ultimately resulting in improvements for pupils. The senior leader explained that “as part of the programme's ability to support the team to get better at what they do, the nature of the beast is that everything around them also improves”.

While both consultees acknowledged that Leading Together was only part of the work the school had done to improve outcomes, they felt the project had contributed to improved Key Stage (KS) 4 outcomes, certainly prior to the onset of Covid-19. The AP commented: “since the start of the project, their outcomes have continued [on] an upward trajectory.

They have been the most improved school in the area". The AP also felt that Leading Together had supported the school to improve attendance and reduce exclusions: "Their attendance has improved...they have shown a positive improvement in terms of attendance, positive reduction in exclusions, both fixed term and day-to-day behaviour records".

The AP had conducted focus groups with pupils to gain insight into their understanding of the changes that were happening in school and commented: "We could see that shift in terms of the children's understanding. They were recognising changes in the classroom. They were recognising [changes] in the curriculum and they were recognising changes in leadership".

At the time of interview, the school was building on the improvements in teaching and learning secured prior to the pandemic, with the support of Leading Together, to support pupils to recover learning following the disruption created by the period of partial school closures. Mid-way through the spring term 2021, they felt there were positive signs that pupils were showing further improvement.

Pupil learning and academic outcomes

As a result of the pandemic, there was no formal KS2 outcomes data in 2020. However, some primary schools reported improvements in their pupils' internal academic outcomes data. For example, one reported improvements in KS2 arithmetic scores which they felt may have been influenced by Leading Together. These improved scores contributed to the notable improvements they were seeing in their progress data. Similarly, another leader reported "seeing [significantly] improved progress. We were seeing year-on-year improvements in outcomes".

Senior leaders and APs were also in agreement that pupils had a better understanding of the purpose and structure of their learning than previously – they had grown in their ability to articulate what they were learning and why, and how it built on their previous learning. Senior leaders and APs largely attributed these improvements to enhancements in teaching and learning and an improved curriculum. Teachers were becoming more adept at scaffolding, and there was greater consistency and quality in their teaching practice, including an enhanced understanding of how pupils learn, as demonstrated in the quotations below:

Before Covid impacted, those pupils understood why they were doing quizzes. They understood why they were going back over previous learning - why that was important. – *Senior Leader*

When you've got that process, it's [clear] if the quality of what you're delivering is good and there's a consistency of approach, it's going to

have a direct impact. So, what we've got is the children who are far more able to articulate their learning journey, children who are far more able to identify and talk about learning from previous terms. – *Senior Leader*

There is better progress and better deepening of knowledge, because of the changes in pedagogy and changes in the curriculum, they've built a far more recursive curriculum that means that children have that understanding. They're building on their knowledge all of the time and they're making those links. – *Achievement Partner*

The case studies also demonstrated that non-participating teachers were also noticing not just improvements in teaching and learning across the school, but also the impact of this on their pupils. These teachers reported observing clear improvements in pupils' work and the progress they were making following the implementation of new strategies, interventions and/or curriculum.

The impact that [these strategies] had on my class was amazing – *Non-participating Teacher*

The children enjoy it, the children's knowledge has increased. The work they're doing is more engaging. – *Non-participating Teacher*

Attendance and behaviour

Leading Together also appeared to have supported schools to improve pupils' attendance and behaviour. Many of the case-study schools had reviewed and updated their behaviour policy and their strategies for supporting pupils with challenging behaviour:

Behaviour was one of the things that was really challenging at the school two years ago. Particularly the low-level behaviours. That has just completely transformed, but even the wording - so our policy is not called 'Behaviour Policy' it's 'Optimising Behaviour'. It's just that shift in the ways of thinking about things. – *Senior Leader*

The behaviour of pupils and attitudes to learning were really poor early in the programme. Most recently, on observation, those learning behaviours have transformed to be, actually, really very strong through the school. – *Achievement Partner*

Senior leaders and APs were in agreement that the new approaches were proving effective in school and, when implemented alongside improved curriculum and teaching, contributed to improved pupil attitudes and engagement in class. In one school, the AP noted that improvements in behaviour and attendance had resulted in a reduction in exclusions as well (see box 7 for this example):

We're seeing that the children's levels of engagement are improved as well. We've used things such as the Leuven Scale¹⁶ to be able to measure that, the levels of wellbeing and involvement. – *Senior Leader*

Pupils' attitudes to their learning are much improved. The outcomes for pupils are starting to improve, particularly in the lower part of the school. – *Achievement Partner*

There were also some examples of the behaviour policies developed through Leading Together helping schools navigate and mitigate the potential impact of the pandemic on pupils' behaviour and attendance. For example, one senior leader commented that the pupils attending throughout the partial school closures were remarkably settled, noting that:

It's a testament to show how that was embedded, because even though there's this huge disruption and it's not quite the same, they are still behaving in the same way. – *Senior Leader*

Nelson *et al.* (2021) present evidence that pupils who attended school during the period of partial school closures (usually vulnerable pupils, pupils with special educational needs and disabilities (SEND), economically disadvantaged pupils or pupils with poor access to IT) often thrived during this period because schools were less busy, pupils did not have to negotiate difficult relationships with peers, and pupils had more individual attention from staff. We cannot know, therefore, that the behaviour improvements observed by case-study schools during the pandemic were necessarily a result of Leading Together.

Perceived impacts on CPD quality, demand and delivery capacity

As already discussed in Section 4.4, in some schools Leading Together appeared to have improved the clarity and quality of the CPD offered in school, particularly among middle leaders. Some schools used the funding and support offered to develop their CPD offer and strategy, highlighting the importance and potential benefits to staff. In other

¹⁶ The Leuven Scale is a five-point assessment scale that allows childcare practitioners and teachers to measure children's 'emotional wellbeing' and 'involvement' (that is, being intensely engaged in activities).

settings, improvements in the CPD offer appeared to have occurred as a result of the upskilling of leaders' teaching and leadership knowledge and skills.

As shown in table 4, the survey did not show a significant change in the motivation for professional development among all leaders or the motivation for teaching-focused professional development among middle leaders. However, the qualitative evidence suggests that, in some schools, Leading Together had facilitated an increase in the demand and uptake of CPD, though this appears primarily to have occurred among participating leaders. For example, one school used the Learning Pot to invest in additional CPD for middle leaders, while leaders at other schools embarked on various National Professional Qualifications (NPQs), such as the NPQ for Headship and the NPQ for Senior Leadership. However, it is not clear whether this increase in demand will be sustainable once the project, particularly the Learning Pot funding, is no longer available, or if demand will spread to other teachers.

There were mixed experiences of how the pandemic impacted on leaders' and teachers' ability to access CPD. For example, one senior leader commented that the move to virtual CPD delivery meant staff had been able to access more CPD than normal, while another leader felt that the disruption in schools had hindered their staff's ability to access and deliver CPD.

Perceived impact on Ofsted ratings

Due to the disruption caused by the pandemic, Ofsted inspections were suspended from March 2020. This meant that, while some of the case-study schools had been expecting an inspection and subsequent improvement in their rating, inspections did not occur and they were unable to formally demonstrate improvement. Despite this, the senior leaders and APs at these schools were typically confident that the school had improved sufficiently to achieve a 'Good' rating in future, due to the improvements made in teaching and leadership quality as well as improved pupil outcomes:

We felt that we had enough evidence now to [show] that we are a good school. – *Senior Leader*

They were so ready to get a good outcome. They really were. – *Achievement Partner*

4.5 Summary of outcomes and impacts

Overall, the Leading Together project appears to have been successful in achieving its intended outcomes and impacts. There is considerable evidence from the surveys and/or qualitative data that the project improved leaders' confidence, knowledge and skills; equipped them with a growing range of evidence-based approaches to CPD, teaching

and learning and school improvement; and supported them to improve teaching quality across the school. There is also some evidence that these improvements may have led to corresponding improvements in pupils' outcomes (including attainment, progress, behaviour and attendance). In some schools, senior leaders felt that the improvements to teaching and leadership quality and pupil outcomes meant that their school would soon see improvements in their Ofsted rating, however, the pandemic has delayed the inspections needed to assess this. Similarly, there appears to have been improvement in the quality, capacity to deliver and demand for CPD in some settings. Finally, the SWC analysis suggests that Leading Together may have helped to retain participating teachers in schools and support their career progression, although the true effect of the project is likely to be smaller than this analysis suggests due to unobserved systematic differences between treatment and comparison teachers. There is some qualitative evidence that the aforementioned growth in leaders' knowledge and skills was supporting staff progression, while the support offered through Leading Together, and the capacity this generated, may have helped to retain teachers and supported some schools to stabilise their staff turnover.

5 Sustainability

As part of the evaluation of Leading Together, we were interested in exploring the sustainability of the new ways of working, new learning, and outcomes in schools, which had come about through participants' involvement with the project.

Leading Together includes a 'sustain phase', which focuses on how project learning can be sustained, and how the leadership team can make strategic improvements that can impact the school beyond the length of the project. The Project Manager and APs were in agreement that this phase of the project was important for securing and embedding the learning and, crucially, the underpinning ethos and principles of Leading Together in schools. Senior leaders and APs were largely confident that, despite the disruption of Covid-19, learning from Leading Together and its underlying ethos and principles had been, and continued to be, embedded effectively in schools:

If... we think about culture and we think about strategy, strategising, self-evaluation and school improvement planning, monitoring, evaluation, we take all of those factors, those are embedded now. – *Achievement Partner*

It's almost become a part of who we are as a leadership team. It's changed the way in [which] we think and approach things. – *Senior Leader*

I think the thing that will endure is the focus on the team and the leadership development that will make an ongoing difference to the school. – *Project Manager*

Furthermore, at the time of interview, senior leaders were very motivated to ensure that the learning, implementation and change continued beyond the duration of the project. Senior leaders were invested in the work they were doing and wanted to continue working to embed this. Where Covid-19 had delayed this work, this appeared to have heightened the drive among senior leaders to ensure that learning and changes to practice were implemented as soon as possible for the benefit of staff and pupils. It also appeared that senior leaders were incorporating Leading Together knowledge and skills into their response to the pandemic, and the impact the pandemic has had on staff and pupils:

Our curriculum offer, what we're offering, that's the element that we've not been able to get as far with as we'd hoped due to lockdown. But it's really exciting. We're still continuing to work on that

as much as we can behind the scenes, so that when we come back, we can hit the ground running. – *Senior Leader*

Senior leaders and APs highlighted that the project had supported them to embed a new culture of reflection and evaluation in school. They felt that this change in perspective and culture would help them sustain their focus on effective leadership and school improvement. Practically, APs also commented on the value of leaders being able to draw on a wealth of materials and resources supplied by Leading Together once the formal support concluded, in conjunction with the skills they had developed in implementing evidenced-based change:

Leading Together provides them with that opportunity to reflect on themselves and say what's important as a school, as a leadership team, as a community. I can see that continuing to be a body of work that they will focus on as a result of some really challenging questions that they had to ask themselves. – *Achievement Partner*

They actually get training materials out from modules and refer back to them. It's really interesting to watch. We're now having discussions about 'We did a bit on that module and actually that would be really useful'. So, it's become part of their thinking and knowledge. – *Achievement Partner*

The leadership capacity built at the time of the interviews, which was continuing to be developed among middle leaders, was also perceived by senior leaders and APs as important for ensuring that new learning and new ways of working were sustained. Middle leaders were working to implement change and disseminate learning at classroom-level. Given that these middle leaders may progress to senior leadership in the future, interviewees believed that building their leadership capacity, and ensuring that middle leaders were aligned with the ethos and principles of Leading Together, was key for sustaining changes after the project ended:

Because there's been the development of the extended leadership team, it's given them capacity and it's built capability. – *Achievement Partner*

One of the biggest steps you have to make from being a successful middle leader to being a senior leader is to have that global view of the academy and what's best for the children across the academy, rather than your specific subject area...That's been something that's been developed as part of the programme and we'll continue forward, which is good. – *Senior Leader*

Staff turnover is a normal part of school life. If Leading Together is implemented effectively, and supported by effective succession planning and recruitment practices, then any progression and/or turnover of leaders should support the dissemination of learning and improved leadership practice across the education sector as leaders take on new roles and responsibilities in new settings. However, some schools anticipated that there would be a potential risk to the sustainability of learning and new ways of working if turnover took place *before* changes were fully embedded.

For example, at one school, the headteacher moved on to a new role at a different school shortly after Leading Together delivery finished. While this individual will have taken their learning with them, and this may benefit a second school, the AP highlighted the importance of the other senior leaders remaining at the Leading Together school working carefully to ensure that the loss of the headteacher did not detrimentally impact the changes the school was seeking to embed, or dissipate the buy-in of staff to these changes.

The additional challenge associated with this example is whether the incoming headteacher would accept the changes the school was embedding following involvement in Leading Together, especially given the importance of headteacher commitment in driving change. If Leading Together schools experience high turnover among their leaders, and commitment to the changes made under the project falls, this may hinder or even prevent the learning and new ways of working gained from Leading Together from being sustained in the schools that took part in the project.

6 Evaluation of the Leading Together project Theory of Change

In this section we draw on the findings presented earlier to test out the extent to which Leading Together is moving towards achievement of the outcomes and impacts outlined in the project's ToC.

As already discussed, Leading Together was broadly successful in delivering its intended activities, despite the challenges posed by the Covid-19 pandemic. Schools and APs adapted their provision to deliver much of it virtually, taking advantage of the flexibility and scope for tailoring built into the project to ensure that the delivery of Leading Together continued to meet the needs of the schools and participating leaders.

The evidence suggests that Leading Together made good progress towards achieving its intended outcomes and impacts and that schools were seeing these outcomes and impacts emerge among their staff, particularly in relation to the quality of teaching and leadership. It appears that the combination and structuring of the learning modules, coaching and AP support, in conjunction with the high levels of engagement and commitment from schools, were key to enabling change among leaders and in schools. The support offered in Leading Together also seems to have helped the project improve the retention and progression of participating teachers. However, caution is needed in interpreting this finding as it is not possible to fully disentangle the effect of the project from other non-observed systematic differences between treatment and comparison teachers.

There is also some evidence that the project contributed to improvements in pupil outcomes (including behaviour, attendance, attainment and progress) as well as creating potential for positive changes in Ofsted inspection ratings. However, the pandemic disruption made it difficult to evidence these outcomes, as Ofsted inspections were delayed, and external KS2, GCSE and A Level assessments were cancelled in 2020. The pandemic may have masked some pupil-level impacts that may have otherwise occurred, but Leading Together support may also have helped schools mitigate some of the negative impacts of the pandemic on pupils.

Overall, Leading Together appears to have been successful in applying its intended mechanisms for change, that is to say the project improved senior leaders' and middle leaders' knowledge and skills and supported leadership teams to embed their learning within the school, to achieve the intended outcomes and impacts.

7 Learning about effective CPD for schools in challenging circumstances

7.1 Recruiting and engaging schools

The DfE MI data reported that Leading Together had successfully recruited and retained the target numbers of schools and participants for cohorts 1 and 2. Although recruitment was time consuming and challenging, Teach First developed an effective recruitment strategy by engaging local stakeholders, targeting specific geographical areas and clearly communicating how the offer differed from the other support available to these schools being offered a variety of interventions (e.g. because they are in an Opportunity Area).

7.2 Characteristics of effective CPD

Coe (2020) compiled a list of practical implications for the design of CPD (see Appendix J). Although his review focussed on subject-specific CPD, it was based on the broad congruence of evidence found in reviews about the characteristics of effective CPD both subject-specific and within a wider context. These characteristics support changes in teachers' classroom practice which, in turn, are likely to lead to substantive gains in student learning. These are set out in Appendix J. The first purpose of this section is to highlight key features of the Leading Together project which appeared to lead to positive outcomes indicative of effective CPD that align with Coe's list. The second is to identify any key features of the Leading Together project that appeared to lead to positive outcomes indicative of effective CPD, which are not included in Coe's list.

The Leading Together project aligns with many of the items in Coe's list. In particular, the core model of the AP working directly and regularly with leadership teams over a two-year period, presenting evidence-based material that can be grounded in the context of each participating school. In addition, the face-to-face learning modules, and the individual and group support were used as an opportunity for ongoing reflection, discussion and implementation of learning.

The main features of Leading Together not covered in Coe's list are the support for diagnosis and implementation of school improvement priorities and the 'Leaning Pot' funds. Structuring the AP support (which did align with Coe's list) around the specific challenges and needs of the school appears to have led to a focussed and targeted approach to supporting participating schools. Furthermore, schools could use the funds available from the 'Learning Pot' to work towards their identified aims – and not necessarily focus on CPD. These additional elements of the project, along with the components of effective CPD identified by Coe, currently appear to effectively secure the support in the school.

7.3 Summary

Overall, the evidence supports Leading Together's ToC, with a number of the outcomes having been met for cohorts 1 and 2. The project's in-built flexibility and scope for tailoring, in conjunction with the effective combinations of evidence-based teaching and learning approaches, and the commitment of the participating schools, appeared fundamental to achieving outcomes and impacts in schools despite the difficult delivery context that emerged through the Covid-19 pandemic.

Leading Together appears to have been successful in supporting leadership teams to improve and to progress their school improvement priorities. The project appears to have been particularly successful in improving leadership and teaching quality both at an individual and school level. Leading Together also appears to have been successful in helping to retain participating teachers and support their progression. As noted in the report, small sample sizes due to Covid-19 disruption have hampered the ability to draw more concrete conclusions.

Due to the pandemic, especially the cancellation of national assessments, it was not possible to undertake a robust impact analysis of pupil attainment data, as originally planned. Hence, we can only surmise that the project may have contributed to improved pupil outcomes and had the potential to contribute to improved Ofsted inspection ratings in future.

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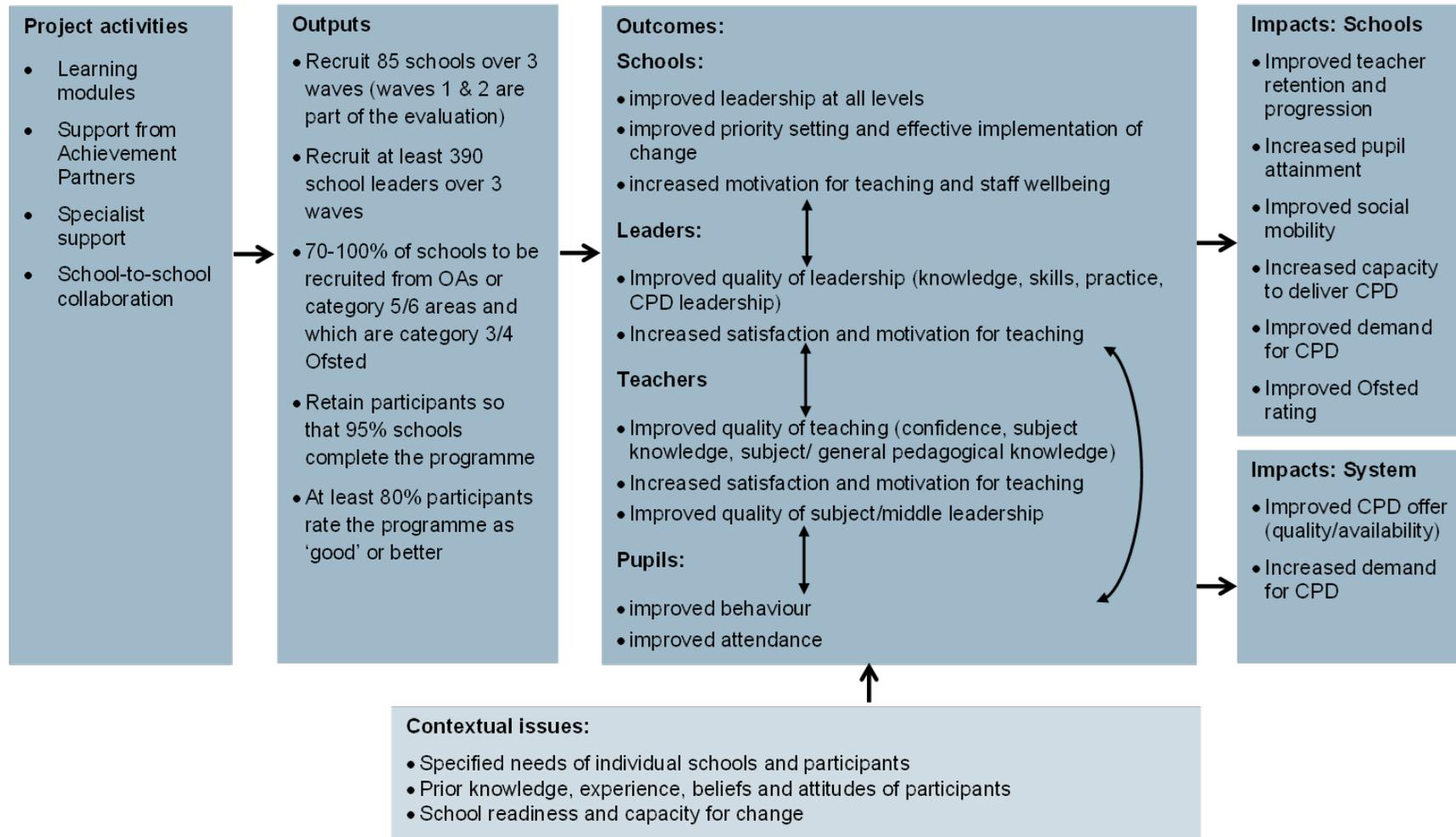
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Appendix A: Leading Together Project Logic Model

Rationale and Evidence

Desimone, 2009 and Cordingley *et al.*, 2015 demonstrate that effective CPD can lead directly to improved **classroom practice** which is reinforced (Guskey, 2002) by seeing changes in pupils in the classroom, creating **high quality teaching**, the key driver of improved pupil outcomes. Successful CPD occurs where **school leaders** create conditions which allow it to flourish) Cordingley *et al.*, 2015).



Appendix B: Qualitative sampling

Selection of Achievement Partners for telephone interview

We undertook telephone interviews with six APs – three from cohort 1 in 2018 and three from cohort 2 in 2019. For cohort 1, there were only four APs to sample and so three APs were randomly selected. For cohort 2, there were seven APs to sample from, but two of these were operating in the same cluster (that is, the same region and phase grouping) and so one of these APs was randomly selected to be the main school to be contacted if this cluster was selected. Three APs were then sampled at random. The intention was to capture a broad range of perspectives on their experiences supporting a range of participating schools and senior leaders. This is in contrast to the AP interviews undertaken as part of the school case studies (see below), which focused on the AP's experiences of supporting the specific school that had been sampled.

Selection of school case studies

In order to capture a range of different perspectives on the project's delivery and impact, we conducted six case studies, each focussing on a different participating school. Schools were sampled to cover a range of clusters, Ofsted ratings and AEA levels. Once identified, we contacted the AP and headteacher and asked them to nominate an appropriate senior leader and non-participating teacher to participate in an interview.

Originally, it was intended that the case studies would include cohort 1 and cohort 2 schools, however, the onset of the pandemic meant it was not possible to conduct case studies with any cohort 1 schools¹⁷. Instead all of the case studies were cohort 2 schools. The intention was to conduct three interviews in each of five case-study schools, however, three of the five schools who participated were not able to identify a non-participating teacher with capacity to be involved owing to the pressures they were experiencing in school. We therefore agreed with DfE to supplement the case studies with a sixth school able to offer an interview with a non-participating teacher. Therefore, we achieved the intended number of 15 interviews, but across six rather than five schools. However, it was not possible to achieve a non-participating teacher interview in a secondary school. The case studies took place in the spring term 2021.

¹⁷ This was because the DfE and NFER opted not to undertake any fieldwork at this time so as not to place further burden on schools.

Table 21 Details of who was interviewed as part of each case study, together with school characteristics

Case study	Achievement Partner	Senior leader	Non-participating teacher	AEA level	Cluster and phase	Ofsted rating*
A	✓	✓	–	6	West Midlands Secondary	3
B	✓	✓	–	5	Yorkshire and Humber Secondary	4
C	✓	✓	–	6	East Midlands Primary	4
D	✓	✓	✓	6	Isle of Wight Primary	3
E	✓	✓	✓	5	West Midlands Primary	3
F	✓	✓	✓	6	Isle of Wight Primary	3

*1=Outstanding; 2=Good; 3=Requires Improvement; 4=Inadequate

Appendix C: 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 state-sector 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

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.

interpretation of the findings as they are very likely to affect treatment teachers/ schools in a similar way to comparison teachers/ schools.

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 22 shows that the match rate for teachers listed in the MI data as participating in the Leading Together project was 88 per cent to an SWC record in the year in which, according to the MI data, they were recruited to the project.

Table 22 Matching teachers to the SWC

MI data	Frequency or percentage
Total Leading Together participants identified in the MI data	358
Total Leading Together participants matched to at least one SWC record	331
Total Leading Together participants matched to an SWC record after removing SWC inconsistencies and records with missing baseline information	316
Match rate (%)	88

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 23 shows that the match rate for schools in the MI data as participating in the Leading Together project was 100 per cent.

Table 23 Matching schools to the SWC

MI data	Frequency or percentage
Total Leading Together schools identified in the MI data	51
Total Leading Together schools matched to at least one SWC record	51
Match rate (%)	100

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 Leading Together-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 Leading Together 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. Leading Together 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 we 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 Leading Together 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 24 and 25 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

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.

logistic regression modelling. Retention and progression are considered separately from four different perspectives:

1. Within the same school one and two years after baseline²⁵
2. Within the same LA one and two years after baseline
3. Within the profession as a whole one and two years after baseline
4. Within a 'challenging' school one and two 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 or two 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 or two years later.²⁶

'Challenging schools' were generally defined as schools that were rated by Ofsted as 'requires improvement' or 'inadequate'. However, it was also assumed that all Leading Together 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 24). This is because the school had been deemed challenging enough to be targeted by the Leading Together 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, a Leading Together 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 Leading Together 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, a Leading Together teacher in a 'good' school who stayed in the same school, or a non-Leading Together teacher in a 'requires improvement'

²⁵ While in principle outcomes three years after baseline were observed, sample sizes at this stage are too small to be statistically reliable, so only outcomes one and two years after baseline are reported.

²⁶ 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.

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.

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.²⁷ 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 or two 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

²⁷ This is a definition of middle leader that has been used by DfE in the past. See Footnote 14 in <https://www.gov.uk/government/statistics/teachers-analysis-compendium-2017>

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 4.4.3, with the accompanying odds ratio estimates in Appendix D. Standard errors for the marginal effect estimates are calculated using the delta method and statistical significance is assessed at the five per cent level.

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 4.4.3. 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 differences. The same difference-in-difference estimates are also presented as odds ratios in Appendix D. Statistical significance is assessed at the five per cent level.

Statistical Matching

Table 24 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, older and more experienced than in the unmatched potential comparison group. Similarly, the schools that treatment teachers were in were more likely to be rated '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 drawn exclusively from AEA category 5 and 6 schools. Similarly, as no treatment teachers were from schools within London, potential comparison teachers were drawn only from schools in non-London regions.

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 435,828 potential comparison teachers, only 2,441 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 Leading Together project (at least in observed teacher and school characteristics). Nine potential treatment teachers were also discarded from the matched sample, as these teachers have no sufficiently similar counterpart in the potential comparison teacher sample.

Table 24 Characteristics of treatment and comparison teachers before and after matching in the full sample

Characteristic	Treatment teachers (%)	Potential comparison teachers (%)	Matched treatment teachers (%)	Matched comparison teachers (%)
Male	30.7	23.7	30.0	29.4
Female	69.3	76.3	70.0	70.6
Aged under 30	9.5	23.0	9.8	9.6
Aged 30-49	74.1	60.1	73.3	73.9
Aged 50 or older	16.5	16.8	16.9	16.5
Within 5 years of qualifying	< 8.0*	23.5	< 8.0*	9.3
Between 5 and 9 years since qualifying	20.9	20.1	20.2	20.7
Between 10 and 19 since qualifying	42.4	31.3	42.0	43.3
20 years or more since qualifying	28.2	21.1	29.0	26.1

Characteristic	Treatment teachers (%)	Potential comparison teachers (%)	Matched treatment teachers (%)	Matched comparison teachers (%)
Unknown years since qualification	< 4.0*	4.0	< 4.0*	0.6
Classroom teacher	32.0	68.9	32.9	35.0
Middle leader	8.2	17.4	8.5	9.7
Senior leader	59.8	13.7	58.6	55.3
Full-time	93.0	77.4	92.8	94.4
Part-time	7.0	22.6	7.2	5.6
Ofsted outstanding/good	23.4	77.8	24.1	24.1
Ofsted requires improvement	47.8	14.5	46.6	50.0
Ofsted inadequate	15.5	4.4	16.0	13.2
Ofsted score unknown	13.3	3.3	13.4	12.6
Primary school	54.1	54.2	55.7	50.5
Secondary school	45.9	45.8	44.3	49.5
FSM highest 20%	57.0	24.2	55.7	57.5
FSM middle-highest 20%	22.5	23.8	23.1	22.6
FSM middle 20%	12.3	20.7	12.7	11.4
FSM middle-lowest 20%	< 6.0*	17.5	< 6.0*	4.2
FSM lowest 20%	0.0	13.1	0.0	0.0
FSM unknown	< 4.0*	0.7	< 4.0*	4.4
Attainment highest 40%	3.2	32.8	3.3	3.4
Attainment middle 20%	18.7	24.2	19.2	17.4
Attainment middle-lowest 20%	42.1	25.4	43.0	45.7

Characteristic	Treatment teachers (%)	Potential comparison teachers (%)	Matched treatment teachers (%)	Matched comparison teachers (%)
Attainment lowest 20%	31.3	10.2	29.6	29.8
Attainment unknown	4.7	7.4	4.9	3.8
East of England	0.0	12.5	0.0	0.0
East Midlands	11.1	17.0	11.4	8.9
West Midlands	15.2	17.3	15.6	14.3
North East	0.0	2.5	0.0	0.0
North West	29.7	18.0	30.6	35.0
South East	7.9	13.7	8.1	8.7
South West	0.0	1.8	0.0	0.0
Yorkshire and the Humber	36.1	17.1	34.2	33.1
Baseline year 2017	35.8	33.5	36.8	42.2
Baseline year 2018	57.9	33.2	56.7	51.9
Baseline year 2019	6.3	33.4	6.5	5.9
Number of teachers	316	435,828	307	2441

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

In addition to the full matched sample, a second matched sample was derived, with which to estimate the differences in career progression and retention within the same school/same LA/a challenging school. This sample was only used for the teacher level analysis and not the school level analysis. Given that career progression or retention within the same school/same LA/a challenging school for teachers who left the profession is not observed for teachers who leave the profession, this additional matched sample consisted of a subset of teachers in the full sample who did not leave the profession in the three years after baseline. Characteristics of teachers in the matched sample of non-leavers were very similar to the full matched sample.

Table 25 below highlights the sample characteristics for the treatment and comparison groups for the school-level analysis. In the unmatched samples, treatment schools were more likely to be rated 'requires improvement' or 'inadequate' and had lower attainment and higher proportions of pupils eligible for free school meals.

After matching, the proportions of comparison schools in each of the key matching characteristics were much more closely aligned with treatment schools. While some small differences between treatment and comparison schools 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.

Table 25 Characteristics of treatment and comparison schools before and after matching

Characteristic	Potential comparison schools (%)	Treatment schools (%)	Matched comparison schools (%)
Nursery	2	0	0
Primary	77	60	67
Secondary	15	40	33
16 Plus	0	0	0
Special	6	0	0
East of England	12	0	0
East Midlands	9	10	14
West Midlands	11	20	20
Inner London	5	0	0
Outer London	7	0	0
North East	5	0	0
North West	14	20	19
South East	15	10	13
South West	11	0	0
Yorkshire and the Humber	10	30	34
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	20	17
AEA Category 6	16	80	83

Characteristic	Potential comparison schools (%)	Treatment schools (%)	Matched comparison schools (%)
FSM lowest 20%	19	0	0
FSM middle-lowest 20%	18	10	11
FSM middle 20%	18	20	16
FSM middle-highest 20%	18	30	26
FSM highest 20%	18	50	44
FSM unknown	8	0	2
Attainment lowest 20%	16	30	26
Attainment middle-lowest 20%	18	40	43
Attainment middle 20%	17	20	21
Attainment middle-highest 20%	18	0	5
Attainment highest 20%	16	0	0
Attainment unknown	15	0	4
Ofsted Inadequate	3	20	16
Ofsted Requires Improvement	10	50	47
Ofsted Good	65	20	27
Ofsted Outstanding	19	0	0
Ofsted Unknown	3	10	9
Number of schools	21,751	51	456
Number of teachers	502,340	3,313	15,252

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 is not disclosive.

Appendix D: Outcomes of SWC impact analysis

Table 26 Odds ratios from the retention and progression outcome teacher-level analysis

Retention Measure	1 year after baseline	2 years after baseline
Retention in state-sector teaching	3.9 (2.0 – 8.7)	2.1 (1.4 – 3.3)
Retention in the same school	5.9 (2.6 – 16.6)	2.5 (1.5 – 4.2)
Retention in the same LA	9.8 (3.1 – 59.9)	3.7 (1.9 – 8.4)
Retention in a challenging school	8.2 (2.5 – 49.9)	3.1 (1.6 – 6.9)
Progression in state-sector teaching	2.3 (1.1 – 4.5)	2.4 (1.3 – 4.3)
Progression in the same school	2.9 (1.4 – 5.9)	3.0 (1.5 – 5.6)
Progression in the same LA	2.8 (1.3 – 5.6)	3.0 (1.6 – 5.5)
Progression in a challenging school	2.8 (1.4 – 5.6)	2.9 (1.5 – 5.4)

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

Table 27 Odds ratios from the retention and progression outcome school-level analysis

Retention Measure	1 year after baseline	2 years after baseline
Retention in state-sector teaching	1.0 (0.8, 1.3)	1.0 (0.8, 1.3)
Retention in the same school	0.9 (0.8, 1.2)	1.1 (0.8, 1.3)
Retention in the same LA	1.0 (0.8, 1.3)	1.0 (0.8, 1.3)
Retention in a challenging school	0.9 (0.7, 1.2)	1.1 (0.8, 1.5)
Progression in state-sector teaching	0.7 (0.5, 1.0)	1.0 (0.7, 1.3)
Progression in the same school	0.8 (0.5, 1.1)	1.1 (0.8, 1.6)
Progression in the same LA	0.8 (0.6, 1.1)	1.1 (0.8, 1.5)
Progression in a challenging school	0.7 (0.5, 1.0)	1.1 (0.8, 1.5)

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

Appendix E: Sample characteristics

Table 28 Selected characteristics of achieved survey samples at baseline, endpoint and in the matched analysis

Role	Baseline (N)	Baseline (%)	Endpoint (N)	Endpoint (%)	Matched Analysis (N)	Matched Analysis (%)
Classroom teacher	0	0	0	0.0	0	0.0
Middle leader	52	20.5	24	21.2	16	18.6
Senior leader	187	73.6	84	74.3	66	76.7
Other	15	5.9	5	4.4	4	4.7
Missing	0	0	0	0.0	0	0.0
How long have you had a formal leadership responsibility?	Baseline (N)	Baseline (%)	Endpoint (N)	Endpoint (%)	Matched Analysis (N)	Matched Analysis (%)
10 years or more	58	22.8	33	29.2	29	33.7
7-9 years	41	16.1	21	18.6	19	22.1
4-6 years	48	18.9	28	24.8	20	23.3
1-3 years	83	32.7	29	25.7	18	20.9
Less than one year	24	9.4	2	1.8	0	0
Missing	0	0	0	0	0	0.0
Participation in the project	Baseline (N)	Baseline (%)	Endpoint (N)	Endpoint (%)	Matched Analysis (N)	Matched Analysis (%)
Joined from the start and completed*	N/A	N/A	66	58.4	60	69.8
Joined from the start; not yet completed	N/A	N/A	22	19.5	19	22.1
Joined after the start; not yet completed	N/A	N/A	11	9.7	3	3.5
Joined after the start but completed*	N/A	N/A	9	8.0	0	0

Dropped out early; did not complete	N/A	N/A	5	4.4	4	4.7
Phase of Teaching	Baseline (N)	Baseline (%)	Endpoint (N)	Endpoint (%)	Matched Analysis (N)	Matched Analysis (%)
Primary	43	48.3	17	63	12	70.6
Secondary	46	51.7	10	37	5	29.4
Other	0	0	0	0	0	0
Ever6 FSM quintiles	Baseline (N)	Baseline (%)	Endpoint (N)	Endpoint (%)	Matched Analysis (N)	Matched Analysis (%)
Lowest 20%	0	0	0	0	0	0
2nd lowest 20%	4	4.5	0	0	0	0
Middle 20%	19	21.3	4	14.8	4	23.5
2nd highest 20%	23	25.8	9	33.3	6	35.3
Highest 20%	27	30.3	11	40.7	5	29.4
Missing	16	18	3	11.1	2	11.8
Ofsted rating	Baseline (N)	Baseline (%)	Endpoint (N)	Endpoint (%)	Matched Analysis (N)	Matched Analysis (%)
Outstanding	0	0	0	0	0	0
Good	30	33.7	5	18.5	4	23.5
Requires improvement	47	52.8	13	48.2	7	41.2
Inadequate	12	13.5	9	33.3	6	35.3
Missing	0	0	0	0	0	0

*These responses include respondents who completed the project prior to completing the endpoint survey, as well as those who were still participating in the project at the time they completed the endpoint survey. Note that due to rounding some columns might not add up to 100%

Appendix F: Description of factor analysis undertaken on core survey questions

Approach to fund-level factor analysis

The TLIF project evaluations included surveys of participants at baseline and endpoint. The surveys included ‘core questions’ – common questions and items included in all the TLIF surveys - with the aim of providing data that could be combined across all projects to analyse fund-level outcomes. Surveys also included, to differing extents, ‘bespoke questions’ – questions that were specific to the project focus and outcomes. This section explains the approach taken to factor analysis of the survey ‘core questions’. Appendix G outlines the approach taken to factor analysis of bespoke questions.

Factor analysis is a statistical technique that summarises information from a number of survey items into a smaller set of reliable outcome measures. It combines survey items that are correlated and assess the same underlying latent construct by grouping together question items that have similar patterns of responses. This enables more robust and straightforward analysis than reporting single items. We used the factors derived through this analysis as our outcome measures to report the survey findings in this report.

Factor analysis was conducted in two stages. First, it was conducted on the core question items that were asked of *all* respondents in exactly the same way. This resulted in Factors 1 to 4 for all respondents. Second, it was conducted on core question items that covered consistent themes but where the wording, or the inclusion, of items varied slightly depending on the *role of the respondent* (class teachers, middle leaders, or senior leaders). This resulted in Factors 5 to 8 for class teachers, Factors 9 to 12 for middle leaders, and Factors 13 and 14 for senior leaders. The Leading Together project included questions for middle leaders and senior leaders. Therefore, factors relevant to this report are 1-4 (based on all respondents), 9-12 (middle leaders) and 13-14 (senior leaders) (see Tables 29 – 38 below).

Each survey question was designed to measure a specific construct – for example ‘leadership quality’ – through a series of items related to that construct. In our analysis, the items that loaded onto each individual factor were, in most cases, derived from a single survey question. This indicates that our survey was successful in measuring the constructs that it intended to. Most survey questions were answered on a Likert scale (e.g. an 8-point agree-disagree scale). The response on the scale was converted to a score for each item, then combined to produce a mean

score and score range for each of the factors. Any teacher, middle or senior leader that answered a third or less of the items entered in to the factor analysis were removed from the analysis for the purpose of constructing the factors on a consistent set of responses.

Factors were selected that met the following criteria:

- strong internal consistency of each factor which indicates reliability (indicated by a high Cronbach’s Alpha statistic on a range from 0 to 1)
- loadings above 0.3 which indicate an association between items and the underlying factors. The relationship of each item to a factor is expressed by a factor loading. Factor loadings are similar to correlation coefficients – a higher value on a range from -1 to 1 indicates a stronger correlation with the factor
- Eigenvalues greater than 1 which indicate strong validity of the factors (the additional variance explained by bringing items together into a single factor)
- low levels of correlation between factors, indicating that each factor is measuring something slightly different.

Several factors were only comprised of two items. However, we deemed this to be acceptable as a two-item factor provides a more robust measure of a concept than two separate items.

Some questions and items that were entered into factor analysis did not load onto factors, or form reliable factors. These are analysed separately in each report, as applicable to the project.

Factors for all respondents

Table 29 Factor 1: Effectiveness of school leadership (all)

Effectiveness of school leadership (all): Item statements	Loading
My school leadership team: sets a clear vision	0.769
My school leadership team: is effective	0.768
My school leadership team: creates an ethos within which all staff are motivated and supported to develop their own skills and subject knowledge	0.734
My school leadership team: sets high expectations for all pupils	0.721
My school leadership team: challenges assumptions about low capabilities of disadvantaged pupils	0.694

My school leadership team: uses data to monitor the quality of teaching and learning and to initiate improvements where required	0.683
My school leadership team: identifies professional development as a priority for all teachers	0.673
My school leadership team: values experimentation and the introduction of new ideas for teaching and learning	0.660
My school leadership team: trusts staff to adapt teaching practices to meet the needs of pupils	0.650
My school leadership team: sets the conditions for effective behaviour management	0.649
My school leadership team: supports teachers to develop their careers (either via a teaching or leadership route, depending on their interest)	0.646
My school leadership team: identifies professional development as a priority for all support staff	0.597
My school leadership team: facilitates collaborative work with other schools	0.569

Reliability of measure: Alpha = 0.941

Table 30 Factor 2: Effectiveness of professional development (all)

Effectiveness of professional development (all): Item statements	Loading
The facilitation of the professional development I have received is effective	0.806
The content of the professional development I have received is relevant to my needs	0.796
The professional development I have undertaken has been effective	0.755
There is support to implement learning from professional development	0.709
I have access to high-quality professional development	0.687
I am encouraged to undertake professional development	0.589
I receive support to undertake follow-up activities when engaging in professional development	0.584

Reliability of measure: Alpha = 0.941

Table 31 Factor 3: Effectiveness of school culture (all)

Effectiveness of school culture (all): Item statements	Loading
I enjoy working at my school	0.679
Most pupils achieve the goals that are set for them in my school	0.588
My school has a collaborative culture characterised by mutual support	0.558
All in all, I am satisfied with my job	0.529
The atmosphere throughout my school encourages pupils to learn	0.524
My workload is manageable	0.507

Reliability of measure: Alpha = 0.818

Table 32 Factor 4: Motivation for professional development (all)

Motivation for professional development (all): Item statements	Loading
I am keen to engage in professional development	0.807
Professional development plays a major role in helping me to improve the quality of my teaching / leadership	0.772

Reliability of measure: Alpha = 0.831

Factors for middle leaders (ML)

Table 33 Factor 9: Personal knowledge for effective teaching (ML)

Personal knowledge for effective teaching (ML): Item statements	Loading
I have the required subject pedagogical knowledge to effectively teach my subject(s) / Key Stage	0.892
I have the required generic pedagogical knowledge to effectively teach my subject(s) / Key Stage	0.856
I have the required subject knowledge to effectively teach my subject(s) / Key Stage	0.730

Reliability of measure: Alpha = 0.906

Table 34 Factor 10: School teaching quality (ML)

School teaching quality (ML): Item statements	Loading
Teachers in my subject/Key Stage have the required subject pedagogical knowledge to effectively teach their subject(s) / Key Stage	0.934
Teachers in my school have the required genetic pedagogical knowledge to effectively teach their subject(s) / Key Stage	0.845
Teachers in my subject/Key Stage have the required subject knowledge to effectively teach their subject(s) / Key Stage	0.747
Teachers in my subject/Key Stage use research findings to make changes to their teaching practice	0.589
Teachers set high expectations for all pupils' achievement	0.523
Teachers in this school manage behaviour effectively to ensure a safe learning environment	0.412

Reliability of measure: Alpha = 0.859

Table 35 Factor 11: Motivation for teaching-focused professional development (ML)

Motivation for teaching-focused professional development (ML): Item statements	Loading
I use professional development both to maintain and to extend my critical understanding of a range of subject- or Key Stage-specific pedagogical approaches	0.898
I use professional development both to maintain and to extend my knowledge of my subject area(s) / Key Stage	0.865

Reliability of measure: Alpha = 0.9

Table 36 Factor 12: Opportunities for career progression (ML)

Opportunities for career progression (ML): Item statements	Loading
I have the opportunity to progress into a system leadership position if I want to (e.g. a specialist leader of education (SLE))	0.787
I have the opportunity to progress into a middle/senior leadership position within my school if I want to	0.742

Reliability of measure: Alpha = 0.765

Factors for senior leaders (SL)

Table 37 Factor 13: School teaching quality (SL)

School teaching quality (SL): Item statements	Loading
Teachers in my school have the required subject pedagogical knowledge to effectively teach their subject(s) / Key Stage	0.914
Teachers in my school have the required generic pedagogical knowledge to effectively teach their subject(s) / Key Stage	0.901
Teaching across different subject(s) / Key Stages is generally very good	0.867
Teachers in my school set high expectations for all pupils' achievement	0.828
Teachers in my school have the required subject knowledge to effectively teach their subject(s) / Key Stage	0.803
Teachers in my school manage behaviour effectively to ensure a safe learning environment	0.709
Teachers in my school use research findings to make changes to their teaching practice	0.678

Reliability of measure: Alpha = 0.931

Table 38 Factor 14: Opportunities for career progression (SL)

Opportunities for career progression (SL): Item statements	Loading
I have the opportunity to progress into a senior system leadership position if I want to (e.g. (NLE), Multi-Academy Trust Chief Executive, Teaching School Alliance Director)	0.853
I have the opportunity to progress into a system leadership position if I want to (e.g. a specialist leader of education (SLE))	0.815

Reliability of measure: Alpha = 0.821

Appendix G: Bespoke project-level factor analysis

Survey questions that were bespoke to measuring the Leading Together project outcomes were also analysed using factor analysis – the same statistical procedure as outlined in Appendix F. The analysis resulted in three bespoke project-level factors as outlined below.

Table 39 Factor 15: Confidence as a leader

Confidence as a leader: Item statements	Loading
How confident do you feel in your ability to evaluate teacher performance effectively	0.830
How confident do you feel in your ability to implement professional development that is linked to your school's priorities	0.835
How confident do you feel in your ability to implement the changes outlined in the school's improvement plan	0.803
How confident do you feel in your ability to identify professional development needs in your school	0.770
How confident do you feel in your ability to lead improvements in teaching	0.770
How confident do you feel in your ability to develop an environment for effective professional development in your school	0.793
How confident do you feel in your ability to identify where change is needed in your school	0.779
How confident do you feel in your ability to with the rest of my school's SLT to undertake whole-school strategic planning	0.754
How confident do you feel in your ability to allocate resources efficiently to support school improvement	0.747
How confident do you feel in your ability to challenge assumptions about low capabilities of disadvantaged pupils	0.621
How confident do you feel in your ability to develop a school culture that supports positive pupil behaviour	0.540

Reliability of measure: Alpha = 0.940

Table 40 Factor 16: Supporting pupils to learn

Supporting pupils to learn: Item statements	Loading
How confident do you feel in your ability to use a range of strategies to support learning?	0.898
How confident do you feel in your ability to create an environment conducive to learning?	0.864
How confident do you feel in your ability to provide feedback that leads to pupil improvement?	0.816
How confident do you feel in your ability to understand how pupils learn?	0.798

Reliability of measure: Alpha = 0.917

Table 41 Factor 17: Personal leadership skills

Personal leadership skills: Item statements	Loading
I am able to evaluate improvement processes and their impacts	0.855
I promote ongoing evaluation by others in the school	0.841
I am able to change my leadership style and practice in response to critical reflection	0.797
I am able to critically reflect on my leadership practice	0.748
I know where to find appropriate leadership support if I need it	0.696
I use data to monitor the quality of teaching and learning and to initiate improvements where required	0.688
Information from research plays an important role in informing my practice	0.637
Coaching support for leadership skills is available if I need it	0.537

Reliability of measure: Alpha = 0.889

Appendix H: Analysis of Management Information for the Teaching and Leadership Innovation Fund: Teach First

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

Teach First delivered the "Transforming Teaching" programme, a whole-school project aiming to improve the quality of teaching in priority schools. **This MI data and analysis only covers Cohorts 1 and 2** as DfE did not fund the delivery of cohort 3. Teach First had the following KPI targets for cohorts 1 and 2:

Geography Level:

- 100% of schools to be recruited from priority areas.
- The programme recruited nationwide.

School Level:

- The target was for a minimum of 42 schools to be recruited during the programme.
- The programme was open to both primary and secondary schools.

Participant Level:

- A minimum of 234 middle and senior leaders and school leaders were to be recruited.
- The programme was aimed at Senior and Middle Leaders.

Total school numbers

100% of schools were located in AEA Category 5 or 6 areas or Opportunity Areas. The target was 100%.

A total of 53 schools participated over the first two cohorts. The target was 42.

Note: Teach First's own data puts the number of schools at 85, but these aren't all present in the DfE Management Information data set.

Total participant numbers

The total number of participants that were recruited to the project is 337.

24 teachers had withdrawn at the time of data collection, leaving 313 who have completed or currently undertaking the course.

The target number of participants over two cohorts was 243.

Note: Teach First data puts the number of participants at 390, which would be exactly on target, however these aren't all present in our participant data set.

Schools by Phase

Teach First recruited from both Primary and Secondary schools.

- 64% of schools recruited (including withdrawals) were primary schools and 36% were secondary.
- Compared to the national distribution of schools Secondaries are over-represented in the Teach First cohort

Schools by Region

Teach First recruited from schools in four of the eight RSC Regions:

- 36% of schools were located in the East Midlands and the Humber,
- 32% were located in Lancashire and West Yorkshire,
- 21% were located in the West Midlands,
- 11% were located in South-East England and South London.

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.

Teach First recruited schools entirely from AEA Categories 5 and 6 areas, meeting their target.

75% of schools recruited (including withdrawals) were in Category 6 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.

Teach First over-recruited from more deprived areas, with 32% of participant schools recruited in the most deprived decile.

Participants by role

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

The Teach First programme was aimed primarily at leadership roles, but also recruited some participants from other groups.

- Senior Leadership roles are over-represented compared to the national figures, with 42% of participants (including withdrawals) being Senior Leaders, compared to 10% nationally.
- A further 32% of participants were middle leaders (compared to 28% nationally).
- 16% were headteachers, compared to 5% nationally.
- Only 2% of participants were classroom teachers, compared to 57% nationally.
- A small proportion (7%) were non-teaching staff.

Appendix I: Extent to which participants were involved in each of the main elements of Leading Together

Participants answering the endpoint survey were presented with a list of the main elements of Leading Together and asked which of these they had engaged with. Participants were then asked a follow-up question in relation to each element they said they were engaged with and were asked to rate their level of involvement on a scale of 1 to 8, where 1 was 'Not at all' and 8 was 'fully'. The scale has subsequently been collapsed into four categories as follows: 1-2 ('Not at all'); 3-4 ('Somewhat'); 5-6 ('Moderately'); 7-8 ('Fully').

Finally, participants were asked to rate the extent to which each of the Leading Together elements they were involved with had met their needs on a scale of 1 to 8, where 1 was 'Not at all' and 8 was 'fully'. The scale has subsequently been collapsed into four categories as follows: 1-2 ('Not at all'); 3-4 ('Somewhat'); 5-6 ('Moderately'); 7-8 ('Fully'). The responses are presented below. Some caution should be taken in interpreting the findings due to the relatively small underlying numbers.

Table 42 List of Leading Together elements that participants were involved with during their time on the project

Leading Together Element	Yes: N (%)	No: N (%)
Residential events	88 (78)	25 (22)
Learning modules – local twilight training delivered	102 (90)	11 (10)
Learning modules – online content	106 (94)	7 (6)
Team coaching by Achievement Partners	101 (89)	12 (11)
Individual coaching by Achievement Partners	108 (96)	5 (4)
Achievement Partner support for diagnosis and implementation of school improvement priorities	95 (84)	18 (16)
Collaboration with other schools	76 (67)	37 (33)
Email/telephone support from your Achievement Partner	101 (89)	12 (11)
Accessing Learning Pot funds	84 (74)	29 (26)
	N=113	

There were a further three respondents to the endpoint survey who were routed out of the survey due to their role (teacher=2) or because they indicated that they had not taken part in Leading Together in an earlier question (n=1).

Table 43 Participants' extent of engagement

Leading Together Element	Not at all (1-2) N (%)	Somewhat (3-4) N (%)	Moderately (5-6) N (%)	Fully (7-8) N (%)	N
Residential events	1 (1)	1 (1)	9 (10)	77 (88)	88
Learning modules – local twilight training delivered	1 (1)	4 (4)	31 (30)	66 (65)	102
Learning modules – online content	3 (3)	14 (13)	35 (33)	54 (51)	106
Team coaching by Achievement Partners	1 (1)	4 (4)	16 (16)	80 (79)	101
Individual coaching by Achievement Partners	0	5 (5)	15 (14)	88 (82)	108
Achievement Partner support for diagnosis and implementation of school improvement priorities	1 (1)	6 (6)	19 (20)	69 (73)	95
Collaboration with other schools	2 (3)	10 (13)	34 (45)	30 (40)	76
Email/telephone support from your Achievement Partner	1 (1)	6 (6)	19 (19)	75 (74)	101
Accessing Learning Pot funds	10 (12)	2 (2)	16 (19)	56 (67)	84

For each item/element, only includes respondents who indicated they had taken part (Table 42) involved or not.

Table 44 Extent the elements met participants' needs

Leading Together Element	Not at all (1-2) N (%)	Somewhat (3-4) N (%)	Moderately (5-6) N (%)	Fully (7-8) N (%)	N
Residential events	6 (7)	8 (9)	29 (33)	45 (51)	88
Learning modules – local twilight training delivered	0	11 (11)	39 (38)	52 (51)	102
Learning modules – online content	8 (8)	17 (16)	41 (39)	40 (38)	106
Team coaching by Achievement Partners	0	11 (11)	26 (26)	64 (63)	101
Individual coaching by Achievement Partners	0	7 (7)	18 (17)	83 (77)	108
Achievement Partner support for diagnosis and implementation of school improvement priorities	1 (1)	8 (8)	21 (22)	65 (68)	95
Collaboration with other schools	4 (5)	13 (17)	34 (45)	25 (33)	76
Email/telephone support from your Achievement Partner	0	11 (11)	17 (17)	73 (72)	101
Accessing Learning Pot funds	4 (5)	4 (5)	12 (14)	64 (76)	84

For each item/element, only includes respondents who indicated they had taken part (Table 42) involved or not.

Table 45 Overall satisfaction

Overall, how would you rate your experience of being involved in the Leading Together programme?	N (%)
Very poor	2 (2)
Poor	6 (5)
Good	28 (25)
Very good	77 (68)
Total	N=113

Appendix J: 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 pupil learning should:

1. Focus on promoting the teacher skills, knowledge and behaviours that are best evidenced as determining pupil learning. Such content should be appropriately sequenced and differentiated to match the needs of participants.
2. Have sufficient duration (two terms) and frequency (fortnightly) to enable changes to be embedded.
3. Give participants opportunities to:
 - a) be presented with new ideas, knowledge, research evidence and practices
 - b) reflect on and discuss that input in ways that surface and challenge their existing beliefs, theories and practices
 - c) see examples of new practices/materials/ideas modelled by experts
 - d) experiment with guided changes in their practice that are consistent with these challenging new ideas and their own context
 - e) receive feedback and coaching from experts in those practices, on an ongoing basis
 - f) evaluate, review and regulate their own learning
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 (egg accountability)

Source: Coe, R. (2020). 'The case for subject-specific CPD.' Paper presented at the Subject CPD Roundtable, Institute of Physics, London, 22 January.



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