Department for Education

# Teaching and Leadership Innovation Fund (TLIF): Fund-level evaluation

## Final Report

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Government Social Research

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# Glossary

## Generic terms

**Achieving Excellence Areas (AEA)** – AEA categories are DfE classifications of educational performance and capacity to improve by Local Authority District (LAD). The areas are split into six categories, from "strong" category 1 areas, to "weak" category 6 areas.

**Indirect beneficiaries (IDB)** – Teaching staff within participating Teaching and Leadership Innovation Fund (TLIF) schools who have not been identified to participate directly in the CPD, but who the project seeks to reach through the dissemination of the project CPD.

**Ofsted rating/grading** – Ofsted can reach one of four overall judgements to rate school quality: 1) Outstanding; 2) Good; 3) Requires Improvement (RI); and 4) Inadequate.

**Opportunity Area (OA)** – Local area districts identified as facing the biggest challenges to social mobility. The OA programme aims to help more children and young people achieve their full potential through targeted funding and place-based improvement.

**Priority areas** – Category 5 or 6 AEAs, including the 12 Government OAs - areas identified as having the weakest performance and least capacity to improve.

**Priority schools** – Term used by projects funded by the TLIF to describe schools with an Ofsted rating of 3 or 4.

**Regional Schools Commissioners (RSCs)** – provide oversight and scrutiny of the performance of academy trusts. There are eight RSCs covering the eight regions of England: East of England and North-East London; East Midlands and the Humber; Lancashire and West Yorkshire; North of England; North-West London and South-Central England; South-East England and South London; South-West England; West Midlands.

**Scaffolding** – a teaching approach where the instructor provides initial demonstration and then encourages the learner to attempt the task with support. Responsibility is transitioned to the learner as support from the instructor reduces.

**Senior leadership team (SLT)** – The SLT take care of the daily planning and management of a school and include the headteacher as well as assistant and deputy headteachers.

**Teaching and Leadership Innovation Fund (TLIF)** – DfE programme (2017-2020) aimed at improving pupil outcomes and social mobility by improving teaching and leadership in priority areas and schools through professional development provision.

## Project-specific terms

***Ambition***

**Cold calling** – the act of calling on pupils to answer questions at random, and not based on who volunteers to participate.

**High Leverage Teachers (HLT)** – Early career and other teachers identified by schools as having scope to develop their practice.

**Teacher Educators (TE)** – High-performing teachers who completed training to enhance their classroom practice and who, it was intended, would progress to support/lead CPD within the school.

***Edison***

**Achievement Adviser (AA)** – school improvement adviser (often a former headteacher) who worked with schools to support improvement.

**Achievement Teams/Achievement Team meetings (ATM)** – protocol-driven meetings of teachers and teaching assistants (TAs), informed by learner data.

**Development Days** – in-school days where the AA worked with and alongside school leaders and school staff on the implementation of school improvement strategies.

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

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

**Lesson visits** – focused observations of learning and teaching that were bookended by learning conversations.

**National Association of Headteachers (NAHT)** – co-constructed/led/funded the development of the original three-year NAHT Aspire programme with Edison Learning.

**Network Days** – professional development days where school leaders from a group of schools came together to share improvement strategies and current practices.

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

**Quality Framework for Teaching and Learning (QFTL)** – a systematic disaggregation of effective teaching captured in six elements, 37 themes, with descriptors and behaviours.

**Venn diagrams** – a simple data report used to inform targeted formative action at whole school, subject, phase and classroom level.

***EdDevTrust***

**Early career teacher (ECT)** – For the purposes of this report, an ECT refers to a teacher in their first five years of service.

***GA***

**Expert trainers** – employed by the GA to deliver the project to teachers in their locality.

**School-based deliverers** – teachers could become 'school-based deliverers' and deliver the training to their teacher colleagues by attending 'train the trainer' validation training.

***IOP***

**IOP Development Coach** – the IOP network of freelance physics experts who provided physics CPD, coaching and mentoring as part of the Future Physics Leaders (FPL) project. Each coach was assigned to a ‘hub’ to support participants in up to seven schools within a designated local area.

**School-Based Development Coach (SBDC)** – physics specialists based in Lead Schools who were supported through FPL to develop as future SBDCs.

***TDT***

**CPD lead** – the person responsible for leading CPD activities in participating schools. Schools nominated a CPD lead for participation in the project. Some CPD leads were new in post, others had longer experience of leading CPD in their schools.

**Expert Adviser (EA)** – senior school leaders, seconded from their schools for two days per week to the project. EAs supported CPD leads with CPD planning and evaluation, provided fortnightly coaching conversations, and led half-termly local forums.

***Teach First***

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

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

**Learning Pot** – a pot of money available to participating schools to spend on the school’s identified development goals in consultation with their AP.

# Executive summary

## Background

The Teaching and Leadership Innovation Fund (TLIF) was a three-year investment, which aimed to support programmes offering high-quality professional development for teachers and school leaders in the areas and schools in England that needed it most. TLIF's overarching objectives were to improve the provision of, and demand for, continuing professional development (CPD). Intended impacts were improvements in teacher retention and progression, and pupil attainment and social mobility. These were to be achieved through enhancements in the quality of leadership and teaching, and in intentions to remain, and progress, within the teaching profession. The DfE commissioned ten different projects, each with a differing focus, with the intention of testing and learning from different approaches to professional development.

## Methodology

This report synthesises findings from eight of these projects, evaluated by the National Foundation for Educational Research (NFER) and Sheffield Institute of Education (SIoE). These projects were delivered by the Ambition Institute (Ambition), Education Development Trust (EdDevTrust), Edison Learning (Edison), Geographical Association (GA), Institute of Physics (IOP), Teach First, Teacher Development Trust (TDT) and Tom Bennett Training (TBT). The other two projects (Ruth Miskin Training and STEM Learning) were evaluated by teams commissioned by the Education Endowment Foundation. This report summarises what worked well, and less well, in recruitment, and in the delivery and implementation of learning, and outlines the outcomes and impacts achieved. It draws on:

- qualitative interview data from all eight projects
- baseline and endpoint survey data from five of the eight projects (Ambition, EdDevTrust, IOP, TDT and Teach First)
- analysis of management information data undertaken by DfE
- observation data collected by DfE
- an analysis of impacts on retention and progression using the School Workforce Census (SWC) and comparing TLIF projects to matched comparison groups.

Specific details of each project's approaches and effectiveness can be found in the individual project-level evaluation reports.

## Recruitment

**All projects met or almost met the targets that they were set relating to the number of schools and participants to be recruited.** They all experienced some participant drop-out, but only EdDevTrust's was substantial. Most projects met, or nearly met, their targets for the proportion of schools in priority areas (AEA areas 5 and 6). Edison and Ambition exceeded their priority school targets (i.e. schools with Ofsted grades 3 (Requires Improvement) or 4 (Inadequate)), but other projects found this target more challenging.

**Where recruitment worked well,** providers had all or some of the following features, they: drew on existing networks and understood schools' needs; had a relevant, distinctive and flexible offer; precisely targeted existing clusters/groupings of schools and individual schools**;** had credibility and a good reputation; capitalised on the use of well-respected delivery experts; and offered provision locally.

**Where recruitment was less effective,** providers had all or some of the following features: lacked existing relationships with schools; targeted their offer poorly; briefed intermediaries insufficiently; did not time the recruitment well (e.g. during rather than prior to the start of an academic year); and allocated insufficient resources.

**Additional, external, factors which were a barrier to recruitment included**: challenging school circumstances; competing with other funded initiatives; and schools needing to fund/find supply cover.

## What worked well and less well in CPD delivery?

Edison, GA, IOP, TBT, TDT and Teach First achieved high levels of participant satisfaction. Ambition and EdDevTrust had good overall satisfaction, with some elements of the provision reported to be less effective.

**Features of effective provision included**: appropriate project staffing; support and training for the delivery team; tailoring to context; being responsive to participant feedback; and funding for schools to help them achieve their project aims.

**Effective delivery styles included**: audits; face-to-face coaching, mentoring, training and/or workshops with individual schools and groups of schools; and incorporating time to practise techniques. Effective CPD typically incorporated a combination of delivery styles.

**Factors which hampered CPD delivery effectiveness included**: inexperienced facilitators; online elements; and cross-phase/subject delivery.

## What worked well/less well in implementation of CPD learning?

**Provider factors** that supported implementation of CPD learning included**:** structured in-school support; incorporating 'plan-do-review' processes; use of practical, actionable approaches and resources; facilitating collaboration between schools; and involving a number of staff from the same school. Factors that hindered implementation included: provision starting part-way through the school year; and limited direct implementation support.

**School factors** that supported implementation included: senior staff commitment; supportive school cultures; and willingness to build changes into existing structures. Factors that hindered implementation included: a lack of senior staff commitment; participants not being effectively empowered; workload/capacity issues; competing priorities; and staff turnover. The COVID-19 pandemic also limited implementation of the learning from TLIF CPD.

## Achievement of outcomes across the fund and the TLIF projects

TLIF had four intended overarching outcomes, ranging from individual to whole-school change. **There was strong evidence** that the TLIF projects contributed to positive changes in relation to overarching outcome 1: individuals' personal teaching and leadership practices. There was **moderate evidence** that the projects impacted positively on overarching outcome 2: whole-school teaching practices and culture change, and **mixed evidence** that the projects contributed to overarching outcome 3: retention and progression intentions – there were increases in job satisfaction, but less evidence of enhanced intention to progress within the profession. There was only **limited evidence** that TLIF projects led to changes in relation to overarching outcome 4: motivation for professional development and/or the diffusion of CPD across schools.

- Edison, TDT and Teach First had strong evidence of change across most of the outcomes summarised above. All three projects had a whole-school focus and their key goals were strongly aligned with the majority of the TLIF outcomes.
- IOP, Ambition and TBT had evidence of change on specific TLIF outcomes that were closely related to their project-specific goals (for example, changes in personal teaching practice or increased job satisfaction). Although whole-school change was a focus for Ambition, it had mixed evidence on this outcome.

- EdDevTrust and GA had a mixed picture of change across the TLIF outcomes outlined above.

## Achievement of retention and progression impacts and progress towards pupil impacts

School Workforce Census (SWC) meta-analysis showed that the TLIF projects had a positive impact on retention but no observable impact on progression. They had an apparent positive impact on direct project participants but no observable impact on participating schools as a whole. Positive findings were that participants were significantly more likely than teachers and leaders not participating in TLIF projects to: remain in the teaching profession; remain in challenging schools; and remain in the same school[1].

Across some of the projects (Edison, EdDevTrust, GA, IOP, TDT and Teach First) interviewees reported that positive changes in pupils' learning behaviours might, in the longer-term, lead to improved progress and/or attainment for some pupils.

## Influence of project design features on outcomes and impacts

Projects with a moderate to long duration of two terms or more were more likely to be associated with positive outcomes and impacts than those with very short duration, although GA (a short-duration project) did have significantly positive impacts on participant retention**.** To be truly effective, moderate to long duration needed to be combined with high-quality delivery and support for implementation. Short duration projects could have effective outcomes if their goals/scope were tightly defined.

There was no clear relationship between the relative cost of the project and the achievement of outcomes or impacts. High project cost was not necessarily positively related to effective outcomes, although the outcomes and impacts for Teach First, one of the higher-cost and longer-term projects, were particularly strong.

[1] It is possible that the strength of these estimated effects on direct participants were overstated, as 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, or motivation towards physics CPD).

## Progress towards sustaining learning

There was evidence, across all projects, that participants had made potentially sustainable changes to their personal practices. However, at the department and/or school level, there were fewer examples.

**Project features that raised the likelihood of practices embedding in schools and sustaining into the future included**: building knowledge, skills and capacity among a number of school staff, or across the senior leadership team; demonstrating practical, easily-implementable approaches, linked to resources which could be re-used and shared; securing senior leaders' commitment to embedding new practices and reviewing progress; and building on existing inter-school networks and structures.

We found that, where projects created new clusters or hubs for the purposes of the project, these were generally difficult to sustain, due to a lack of ongoing commitment from participants and/or funding once the project ended.

Sustainability of new learning and practices beyond the end of the projects' delivery contracts could potentially be aided by projects offering a post-project follow-up session with schools to review progress and support ongoing practice change.

## Recommendations for CPD providers, schools and CPD commissioners

When designing and commissioning programmes, CPD providers and commissioners should take account of key features of effective recruitment, delivery and implementation of learning demonstrated by TLIF projects. This should help ensure that CPD demonstrates a clear route to achieving and sustaining outcomes and impacts. For example it should:

- ideally be two terms or more in length, with a reasonable allocation of days per participant, unless goals are very tightly defined, in which case it can be shorter/less intense
- offer good value for money, with project costs that are proportionate to intended goals and the mechanisms for achieving these, bearing in mind that high-cost CPD does not, alone, lead to positive outcomes or impacts. Proposals for low-cost CPD should be reviewed to ensure that goals are proportionate to resources and, crucially, are achievable
- ideally involve a number of school staff to support the embedding and sustaining of practice change across the school and provide opportunities for teacher dialogue and collaboration
- make use of existing networks to foster intra-school collaboration

- be tailored and relevant to participating schools' needs
- provide practical approaches and resources that can be used 'off the shelf' in lessons and support teachers to embed changes in their practice.

**CPD providers** should also demonstrate how they will support schools to embed new learning and practices, and outline the mechanisms they will put in place to encourage schools to sustain learning and practices once the formal CPD has concluded.

**Schools** should carefully select CPD that meets their needs, is cost-effective for them, and is aligned to their school improvement objectives. Senior leaders should fully commit to the CPD and to creating the climate for professional learning necessary to support, and sustain, the new learning and practices.

# 1 About the Teaching and Leadership Innovation Fund (TLIF) and the evaluation

## 1.1 Background to the Teaching and Leadership Innovation Fund (TLIF)

The Teaching and Leadership Innovation Fund (TLIF) was a three-year investment, which aimed to support high-quality professional development for teachers and school leaders in the areas and schools in England that needed it most. Its objectives were to: improve the provision of, and demand for, teachers' continuing professional development (CPD) and leadership development; and to support the development of a sustainable market in CPD and leadership development (assessment of this objective was not part of the evaluation).

Intended impacts were improvements in teacher retention and progression and, ultimately, improvements in pupil attainment and social mobility. Further details of the fund's theory of change, including these impacts, and the outcomes which it was expected would precede them, are provided in Section 1.3 below.

Ten individual projects were commissioned to achieve the programme aims – eight in the first round of commissioning in the autumn of 2017 (Round (R)1), and two in the second round of commissioning in the spring of 2018 (R2). This report draws together the findings from eight projects (six in R1 and two in R2) which the National Foundation for Educational Research (NFER) and Sheffield Institute of Education (SIoE) evaluated on behalf of the Department for Education (DfE). The remaining two R1 projects, which were evaluated by teams commissioned by the Education Endowment Foundation (EEF), were Ruth Miskin Training (RMT) and STEM Learning. We have not integrated findings from these evaluations into this report due to differences in evaluation design and timings. The EEF reports will be available in summer/autumn 2022. Only management information on these projects is included in this report.

## 1.2 Overview of the TLIF projects

The eight TLIF projects which are the focus of this report delivered a wide range of CPD. Seven completed delivery at the end of March 2020, with Teach First's TLIF-funded delivery continuing to March 2021. Projects included CPD targeted at: school leadership teams; CPD leads; and teachers, including subject teachers (for example of geography, science and physics), early-career teachers (ECTs) and newly-qualified teachers (NQTs). In some cases, projects delivered whole-school CPD targeted at both leaders and teachers, whilst others had a narrower focus on one of these groups. The CPD was designed to improve the quality of teaching and

leadership, with some projects focusing on specific subject areas or on key areas of challenge for schools, such as behaviour management.

CPD took a variety of forms and delivery methods. These commonly included: face-to-face training and/or workshops, coaching or mentoring; opportunities to collaborate with other leaders and teachers; and access to online communities, materials and resources. In some cases, CPD was primarily delivered by experts in the field, whilst in others it upskilled leaders and experienced teachers to be future deliverers of CPD, with a view to supporting sustainability. The duration and intensity of CPD also varied, with some projects requiring a longer commitment of two to three years and others offering a shorter intervention (for example, over a term or six months). Figure 1 provides an overview of the aims, target groups and delivery intentions of the eight projects evaluated by NFER and SIoE. Details on the school and participant targets for each project are included in Table 3. Further information on each project is included in the individual project evaluation reports.

**Figure 1 Overview of TLIF project aims, target groups and delivery intentions**

| Deliverer: project | Target group | Delivered by | Aim | Intended delivery | Timing |
|---|---|---|---|---|---|
| Ambition Institute (Ambition): Transforming Teaching (TT) | Senior leaders and Teacher Educators (TEs) in primary and secondary schools | • TT Fellows<br>• Tutors and training managers with education and CPD delivery experience<br>• Delivered within individual schools | • Improving leadership of teaching and teaching practices | • Senior leaders to receive: face-to-face training; bespoke support via a TT Fellow assigned to the school; twice-yearly conferences.<br>• TEs to receive face-to-face training; one-to-one coaching; support to co-plan and co-deliver training in their school; support to lead CPD in school; and potential progression to Ambition Fellowship in Teacher Education (one per school).<br>• High Leverage Teachers (HLTs) to receive fortnightly face-to-face professional development with a focus on evidence-informed practice; and potential progression to TT Masters in Expert Teaching programme (one per school). | One to three years |
| Education Development Trust (EdDevTrust): Accelerate | ECTs in primary and secondary schools | • Teaching School Alliances (TSAs) recruited to form delivery hubs and lead delivery<br>• Delivered by TSA Coaches supported by EdDevTrust | • Empowering ECTs to deliver the best possible education for disadvantaged pupils | • TSA Coaches, supported by EdDevTrust with face-to-face and online training and expert supervision, provide coaching for ECTs.<br>• ECTs to receive one-day workshop, two-day residential, second-day workshop, third-day workshop, online modules (not mandatory) and resources, specialist instructional coaching, peer-to-peer support through a community of practice (CoP), and optional in-school research project. ECTs also to be supported by an in-school mentor.<br>• Intention for additional support and materials to be provided for school leaders and mentors. | Four terms |

| Deliverer: project | Target group | Delivered by | Aim | Intended delivery | Timing |
|---|---|---|---|---|---|
| Edison Learning (Edison): NAHT Aspire | Senior and middle leaders and teachers in primary schools | • Achievement Advisers (AAs)<br>• Network Days delivered to groups of schools and Development Days delivered within individual schools | • Whole-school improvement programme raising skills, knowledge and competencies | • Network Days (2 per term) for senior and middle leaders and Development Days (2 days per term) involving the wider staff group. Both led by AAs and supported by web-based resources and tools.<br>• Focus on improving: leadership; pedagogy and curriculum; and assessment for learning.<br>• Strategies/resources to include: Fast Learning, Achievement Teams, lesson visits and coaching; Edison's Quality Framework for Leadership (QFL) and Quality Framework for Teaching and Learning (QFTL) for middle leaders and Venn diagrams for assessing pupil progress. | One year |
| Geographical Association (GA): Critical Thinking for Achievement | Secondary science and geography teachers and primary teachers | • Expert trainer delivered CPD or a member of staff could be trained to deliver<br>• Delivered through new and existing school-based networks or at individual school | • Improving the quality of geography and science teaching | • Training for expert trainers and school-based deliverers.<br>• For teachers: two full days of CPD or three half-day/ twilight sessions with a 'plan-do-review' model. Plan - mix of theory and activities; do - a gap task; review - review, sharing and reflection on the gap task. Access to online portal and community.<br>• Optional 12 week follow-on Critical Thinking for Achievement (CTfA) CPD which needed to be paid for by the school. | One term |

| Deliverer: project | Target group | Delivered by | Aim | Intended delivery | Timing |
|---|---|---|---|---|---|
| Institute of Physics (IOP): Future Physics Leaders | Specialist and non-specialist physics teachers and NQTs in secondary schools | • IOP Development Coaches<br>• School-based Development Coaches<br>• Hub model with a Lead School (where CPD delivered) and Partner Schools | • Supporting an increased capacity and capability for physics teaching, leadership and coaching | • School-based Development Coaches seconded for six days a year. Appropriate package of support and coaching devised, alongside supporting them to plan and deliver CPD and gradually take on more responsibility.<br>• Support for specialist physics teachers: one day of CPD per term, topic or theme based and focused on supporting and coaching non-specialists.<br>• Non-specialist physics teachers: one twilight session per term focused on subject and pedagogical knowledge, including practicals.<br>• Support for NQTs: one-to-one mentoring from an IOP Development Coach, with content and frequency tailored to the NQT's needs. Some also able to attend the specialist CPD sessions. | At least one year |
| Tom Bennett Training (TBT) | Senior leaders and/or teachers in primary and secondary schools | • Tom Bennett led most delivery with a local consultant (e.g. executive headteacher)<br>• Delivered within individual schools for teachers; sometimes at an external venue for senior leaders | • Increasing confidence in behaviour management at leadership and classroom level to improve pupils' behaviour | • Project accessed in three ways: Running a School CPD aimed at leaders; Running a Room CPD aimed at teachers; and whole-school projects combining both of the above.<br>• All options to include:<br>➢ initial two-day course setting out the core behaviour management principles and allowing for networking<br>➢ two Booster workshops, three months apart, focusing on consolidating and embedding learning from the initial course<br>• an online community portal and a course handbook. | Six months |

| Deliverer: project | Target group | Delivered by | Aim | Intended delivery | Timing |
|---|---|---|---|---|---|
| Teacher Development Trust (TDT): CPD Excellence Hubs | CPD leads/ senior leaders in primary and secondary schools | • Expert Advisers (EAs)<br>• Delivery within individual schools, but with hub meetings | • Improving the leadership, culture, structure and processes of CPD | • EAs to support CPD leads in participating schools (Partner Schools).<br>• Delivery by EAs to include: three audits to assess schools' needs and priorities and progress towards these.<br>• CPD leads to take part in fortnightly coaching conversations with their EA to support implementation of CPD priorities and attend half-termly CPD forums/hub meetings. | At least 2 years |
| Teach First: Leading Together | School leadership teams in primary and secondary schools | • Achievement Partners (APs) - former headteachers - provided training and allocated 5 or 6 schools in an area. Deloitte also delivered.<br>• Area-based delivery to schools, team and individual coaching | • Improving the quality of leadership and teaching, and ultimately pupil outcomes | • Kick-off day; residential (once a year); twilight sessions; 12 learning modules (two-thirds delivered face-to-face and the remainder accessed online); collaboration with other schools via kick-off day; coaching by APs – individually or group; AP tailored support for school improvement priorities<br>• Funds from the learning pot (£5,000 per school) | Two years |

## 1.3 TLIF theory of change

Early in the evaluation, NFER and SIoE worked with colleagues at the DfE to develop a theory of change (ToC) (see Connell and Kubisch, 1998) for TLIF. This process was informed by the projects' ToCs, which were submitted as part of the bidding process and enhanced as part of the project evaluations, and by two workshops attended by policy and evaluation colleagues at DfE. These workshops sought to map out the outcomes and impacts that TLIF aimed to achieve, the inputs and associated outputs contributing to these, and the contextual conditions and mediating factors that could enable or hinder success. The ToC was reviewed and minor amendments made at a TLIF evaluation steering group in March 2018.

Appendix A shows the TLIF programme ToC in diagrammatic form, with accompanying narrative. In brief, the key features are outlined below.

**DfE's intended inputs included:**

- the provision of funding to enable achievement of school and participant recruitment and programme delivery outputs
- monitoring, contract management, project steering and support
- quality assessment of the projects and learning from the evaluation
- the sharing of learning about high-quality CPD and leadership development.

**Intended outcomes included:**

- improvements in the quality of leadership and teaching
- improvements in teacher/leader enthusiasm and motivation to remain, and progress, within the teaching profession
- project-specific outcomes.

These outcomes, in turn, were intended to lead to impacts for teachers, pupils and the education system.

**Intended impacts included:**

- improved teacher/leader retention and progression in the profession
- improved pupil attainment
- improved social mobility of pupils eligible for free school meals
- improved supply of high-quality professional development and stimulation of demand for professional development, which taken together develop the market for CPD. Stimulation of demand for professional development was not measured through the evaluation.

## 1.4 Evaluation methodology

### 1.4.1 Overall evaluation aims

The aim of the fund-level evaluation was to draw out learning and effectiveness from across the fund, drawing on project-level evaluation data. The fund-level analysis focused on what had worked well and less well in recruitment, delivery and models of implementation and the outcomes and impacts that were achieved.

### 1.4.2 Contextual factors framing the evaluation

When the DfE commissioned the TLIF projects, bidding was open to all projects that felt they could meet the fund's objectives. This resulted in a variety of different CPD projects in terms of design, scale, scope and delivery method. In Section 4.5, we take into account a range of contextual factors, which may have affected project outcomes. These include:

- impact focus, and target group (whether impact was intended to be at whole-school, individual-teacher level or both, and whether the project targeted leaders, teachers or both)
- phase supported (whether primary, secondary, or both phases)
- per-participant cost (whether high, medium or low cost – calculated by comparing the overall cost specified in the project's bid against the number of participants that the project was contracted to recruit).
- intensity of the intended delivery model (intensive, moderate or light touch – 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 engage[2]).
- range of delivery modes (categorised into two groups: a wide range (five to six modes), and a moderate range (three modes).

### 1.4.3 Evaluation methodology

This fund-level evaluation drew on a range of data:

- qualitative findings drawn from the process evaluations of all projects

[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.

- a qualitative comparison of findings from baseline and endpoint surveys[3], which were undertaken for five projects (Ambition, EdDevTrust, IOP, TDT and Teach First)
- analysis of management information (MI) data undertaken by DfE at fund level and for each individual project
- observation data collected by DfE
- analysis of School Workforce Census (SWC) data for each project which explored any changes in teacher and leader retention and progression as a result of the TLIF.

The only data-collection activity that was specific to the fund-level evaluation was a small number of telephone interviews: eight with the DfE TLIF policy leads and contract managers, in March 2018; and two with the DfE policy leads responsible for R1 and R2 TLIF projects, in February 2020. These interviews provided data on the DfE's role in commissioning, monitoring, supporting and challenging individual projects, and alignment of TLIF with related programmes, primarily the Strategic Schools Innovation Fund (SSIF) and OA initiatives.

The data available for the fund-level analysis varied across the eight projects. This reflected a number of factors:

- whether or not we were collecting survey data on individual projects (we generally collected more qualitative data for projects that did not have surveys – Edison, GA and TBT, although we also collected a substantial amount of qualitative data for EdDevTrust)
- the differing nature of the projects (for example whether they were targeting individual teachers or aiming to facilitate whole-school change)
- project delivery timelines
- the need to design project evaluations that were proportionate to the investment being made in each project's delivery.

[3] The original design incorporated a meta-analysis of fund-level survey data, with sub analysis by project. However, due to lower than anticipated survey response rates to the project endpoint surveys resulting from school closures due to Covid-19, the DfE decided to remove this element.

Table 1 provides a summary of the **qualitative data sources** available for each project.

**Table 1 Qualitative project evaluation data sources available**

| **Round 1 projects** | **Project team*** | **Participants** | **Indirect beneficiaries **** | **Pupils** | **Scale of data collection from schools** |
|---|---|---|---|---|---|
| Ambition | ✓ | ✓ | ✓ | x | Six school case studies |
| Edison | ✓ | ✓ | ✓ | x | Nine school case studies |
| IOP | ✓ | ✓ | X | x | 16 participant interviews across 10 schools |
| TBT | ✓ | ✓ | ✓ | ✓ | Ten school case studies and five school interviews |
| TDT | ✓ | ✓ | ✓ | x | Five school case studies |
| Teach First | ✓ | ✓ | ✓ | x | Six school case studies |
| **Round 2 projects** | **Project team*** | **Participants** | **Indirect beneficiaries **** | **Pupils** | **Scale of data collection from schools** |
| EdDevTrust | ✓ | ✓ | ✓ | x | Ten school case studies |
| GA | ✓ | ✓ | X | ✓ | 30 participant interviews and two school case studies |

* Project team includes project managers for all projects and, for some projects, project delivery staff.

** These were teachers or leaders who were not participating in project activities.

The project-level **survey analysis** compared matched participants' responses at baseline and endpoint to explore the extent to which their views changed over time on key TLIF outcomes. A description of the quantitative analyses undertaken on the survey data at project level can be found in Appendix C. This report provides a qualitative description of the differences in survey outcomes across the five project surveys. This description should not be taken as evidence of the relative effectiveness of the different TLIF projects in achieving outcomes, because it is not possible to take account of factors such as differences in sample sizes and response

rates in this kind of qualitative description[4]. Matched baseline and endpoint survey numbers were lower than originally envisaged because endpoint response rates were severely impacted by the closure of schools due to Covid-19. Statistically significant changes are hard to detect on very small datasets, so where we have detected changes for TDT (which had a very small matched sample) (see Section 4), this is particularly positive. The number of responses also varied considerably by project, according to the number of participants involved in each. The survey response rates for each project are shown in Table 2 below.

**Table 2 Survey response rates by project**

| Project | Sample size[5] | Sample size[6] | Baseline survey | Baseline survey | Endpoint survey | Endpoint survey | Matched responses at endpoint | Matched responses at endpoint |
|---|---|---|---|---|---|---|---|---|
| **Project** | **Baseline** | **Endpoint** | **Number** | **Response rate** | **Number** | **Response rate** | **Number** | **Response rate** |
| Ambition | 716 | 716 | 462 | 65% | 180 | 25% | 137 | 19% |
| EdDev Trust | 1101 | 1080 | 768 | 70% | 249 | 23% | 99 | 9% |
| IOP | 738 | 713 | 371 | 50% | 124 | 17% | 83 | 12% |
| TDT | 40 | 58[7] | 35 | 88% | 16 | 28% | 14 | 24% |
| Teach First | 118 C1<br>201 C2 | 147 C1<br>239 C2 | 89 C1<br>166 C2 | 75%<br>83% | 27 C1<br>94 C2 | 20%<br>39% | 16 C1<br>70 C2<br>Total 86 | 11%<br>29%<br>Total 22% |

This report also draws on DfE's analysis of **management information** at fund and project level (a summary is presented in Appendix B) and DfE's **observations of project delivery**. DfE completed observations of project delivery between 2018 and 2020. There was variation in the number of DfE observations that were undertaken for each project (this ranged from two to seven), and observations were undertaken by different DfE project managers. In addition, observations were undertaken at different time points (2018, 2019 and 2020) and four projects were not observed in 2020. We have, therefore, been cautious in drawing conclusions from this data. An overview of project observations can be found in Appendix D.

[4] Analysis of a combined survey dataset for the five TLIF projects would have taken account of these differences, but sample sizes could not support robust analysis.
[5] The number of participants we received contact details for from the provider and sent the survey to did not always exactly match the project MI data.
[6] The number of participants we received contact details for from the provider and sent the survey to did not always exactly match the project MI data.
[7] In 18 of the schools, the individual in the designated CPD role changed between baseline and endpoint. Thus, at endpoint, we surveyed current incumbents as well as those who had previously served in the role. This explains why there were more people in the endpoint sample than at baseline.

Overall, it is important to note that there is unavoidably substantial variability in the type and quantity of data gathered across the TLIF projects. This poses unique challenges for the fund-level analysis. It is important to be mindful, when reading each of the following sections, that we do not have a 'level playing field' for making comparisons across the eight projects.

The fund-level report also incorporates **a meta-analysis of project-level School Workforce Census (SWC) data** which assesses the impacts of the project on teacher retention and progression. This adopts a counterfactual design, to establish what would have happened in the absence of the TLIF projects. Our original design also included an assessment of the impacts of TLIF on pupil attainment. However, as a result of school closures due to Covid-19 and the cancellation of Key Stage 2 assessments and GCSE examinations for the 2020 cohort, DfE decided to remove this aspect of the evaluation.

## 1.5 Focus of this report

This report draws on data from the project-level evaluations and focuses on the extent to which TLIF projects implemented their intended activities and the outcomes and impacts that were realised as a result. It includes the sections detailed below.

- Section 2: Recruitment and retention – achievements at fund level and at individual project level and what worked well and less well in recruitment.
- Section 3: Project delivery and implementation of learning – what worked well and less well in project delivery and implementation of learning.
- Section 4: Outcomes and impacts – the extent to which TLIF outcomes were achieved and the progress that was being made towards the TLIF's impacts.
- Section 5: Sustainability – sustainability of project learning and practices at individual, school and wider levels.
- Section 6: Conclusion and recommendations.

# 2 Recruitment and retention


## Summary

- All projects met or almost met the targets that they were set relating to the number of schools and participants to be recruited.
- All projects experienced some participant drop-out, but EdDevTrust's was substantial, with participant completion numbers being around half of their target.
- Most projects met or nearly met their targets for the proportion of schools recruited being located in priority areas.
- Edison and Ambition exceeded their priority school targets (i.e. schools graded 3 (Requires Improvement) or 4 (Inadequate) by Ofsted), but other projects found this target more challenging.

**Where recruitment worked well, providers**:

- drew on existing networks and had a prior understanding of schools' needs
- had an offer which was relevant, distinctive and flexible to take account of schools' different requirements and contexts
- precisely identified and targeted pre-defined geographical areas, clusters/groupings of schools and individual schools
- had credibility and a reputation for effective delivery of professional development
- capitalised on the support being funded, which made participation attractive to schools, particularly when it was led by well-respected experts
- delivered provision locally.

**Provider factors which contributed to less effective recruitment included**:

- a lack of existing relationships with schools
- a lack of targeting
- communication issues emerging from insufficient briefing of intermediaries who were supporting recruitment
- inappropriate timing e.g. recruitment taking place during, rather than prior to, the start of an academic year
- insufficient time being allocated to recruitment
- inaccessibility of provision
- a lack of capacity to recruit, including insufficient staff capacity and a lack of established processes
- the lack of appeal of cross-phase delivery.

**External factors which were a barrier to recruitment included**: challenging school circumstances; competing with other funded initiatives; and schools needing to fund/find supply cover.

The aim of this section is to explore projects' progress in achieving their recruitment targets, as well as what has worked well and less well in recruitment. We have drawn on the common themes emerging across all of the TLIF projects and provided selected illustrative examples. Please see the individual project reports for more in-depth data on each project.

## 2.1 Achievement of recruitment targets

### 2.1.1 Management Information data analysis

Management Information (MI) data was supplied to DfE by the ten TLIF projects (eight R1 and two R2) in February 2020. The analysis provided an assessment of the characteristics of schools and participants that signed up to the TLIF projects and the extent to which the individual projects, and the TLIF as a whole, met their stated goals. The analysis covered these main themes:

- numbers of schools and participants recruited against targets
- proportion of schools in priority areas: Achieving Excellence Area (AEA) 5/6
- proportion of schools/participants based in priority schools: schools with an Ofsted rating 3 or 4
- distribution of schools according to other criteria such as phase, region and index of multiple deprivation, including a comparison to the national picture
- characteristics of participants such as teacher roles.

Analysing this data at fund level suggests that the ten projects worked with 15,248 participants within 1,844 schools. However, total numbers are likely to be lower than this, as some schools and participants will have participated in more than one project.

Schools were recruited from all of the eight Regional Schools Commissioner (RSC) regions, with the largest proportions based in Lancashire and West Yorkshire (24 per cent) and East Midlands and Humber (23 per cent) and the lowest proportions based in the South (three per cent) and the North (six per cent). This reflected the pattern of the TLIF target areas.

A larger proportion of schools were nursery/primary schools (60 per cent) rather than secondary schools (38 per cent), with just two per cent being special schools or pupil referral units. Comparing the phase of TLIF schools recruited to the national picture showed that a higher proportion of secondary schools were recruited (16 per cent of schools nationally are secondary schools) and a lower proportion of primary schools (78 per cent of schools nationally are primary). In addition, a slightly lower proportion of special schools or pupil referral units were recruited (they make up six per cent of schools nationally).

The majority of schools (82 per cent) participating across the fund were either Ofsted 2 (Good) or 3 (Requires Improvement) (both 41 per cent), whereas most schools nationally (61 per cent) are Ofsted 2 (Good) and 11 per cent are Ofsted 3 (Requires Improvement). Most schools were located in AEA category five and six areas (83 per cent) compared to 34 per cent nationally.

To achieve fund-wide targets relating to the Ofsted grades of participating schools, projects had individual targets relating to the proportion of *schools* recruited being rated Requires Improvement (3) or Inadequate (4) by Ofsted, or the proportion of *participants* recruited being based in schools rated 3 or 4 by Ofsted. In some cases, these targets were a proportion of the schools/participants they had recruited which were located in priority areas (AEA 5 and 6). In other cases, the target was a proportion of all schools or participants recruited (i.e. those located within and outside priority areas). Edison and Ambition exceeded these targets. Other projects found the participants based in priority schools target more challenging. Further details are provided in Table 3 below.

The majority of participants at fund level were classroom teachers (55 per cent), with 14 per cent being middle leaders, 12 per cent teaching assistants (TAs), eight per cent senior leaders, five per cent non-teaching staff, three per cent headteachers and two per cent not specifying their role. Further details on recruitment achievements at fund level can be found in Appendix B.

The MI data for each of the eight projects, which are included in the NFER/SIoE TLIF evaluation, are provided in the appendices of the project-level evaluation reports and key data is included in Table 3 below. It is worth noting that providers' approaches and aims were different, hence the large differences in school and participant numbers. For example, providers targeted different numbers of schools and some took a whole-school approach, which involved most staff within each school, whilst others targeted their CPD at specific groups such as senior leaders, CPD leads or teachers of particular subjects. Figure 1 sets out the projects' aims, target groups and delivery intentions.

The Edison, GA, Teach First[8] and EdDevTrust projects exceeded their targets relating to the number of schools and participants to be recruited. TBT agreed a lower school target than their original tender with DfE, which they achieved, and they also exceeded their participant target. Ambition exceeded their participant target, but were a little below their school target. TDT and IOP respectively achieved and exceeded their school targets, but were below their participant targets. All projects experienced some participant drop-out, but EdDevTrust's was substantial, with participant completion numbers being around half of their target.

[8] This data relates to Cohort 1 and 2. Teach First had recruited Cohort 3 by March 2020 but this data is not included in these figures.

Most projects met or nearly met their targets for the proportion of schools recruited being located in priority areas.

In the following sections, we explore what has worked well and less well in recruitment, drawing on common themes emerging across projects and providing selected examples.

**Table 3 Achievement of recruitment targets by project**[9]

| Project | Schools recruited | | | % of schools in priority areas (AEA 5/6) | | % of schools Ofsted 3 or 4 or % of participants working in schools Ofsted 3 or 4 | | Participants recruited | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Project** | **Target** | **Actual** | **Completed** | **Target** | **Actual** | **Target** | **Actual** | **Target** | **Actual** | **Completed** |
| Ambition | 61 | 55 | Not provided | 70% | 84% | 70% (of schools in priority areas are Ofsted 3 or 4) | 80% | 1365 | 1445 | 1359 |
| EdDevTrust | 395 | 706 | 391 | 70% | 76% | 70% (of participants in priority areas are in Ofsted 3 or 4 schools) | 42% | 1500 | 1598 | 716 |
| Edison | 95 | 98 | 96 | 100% | 100% | 70% (of all participants are in Ofsted 3 or 4 schools) | 90% | 1214 | 1421 | 1413 |
| GA | 300 | 384 | 380 | 70% | 84% | 70% (of participants in priority areas are in Ofsted 3 or 4 schools) | 36% | 1000 | 1050 | 1039 |
| IOP | 168 | 172 | 163 | 100% | 99% | 70% (of participants in priority areas are in Ofsted 3 or 4 schools) | 58% all participants/ 57% completers | 924 | 826 | 649 |

[9] Providers' own MI data records did not always match the MI data they submitted to DfE.

| Project | Schools recruited | | | % of schools in priority areas (AEA 5/6) | | % of schools Ofsted 3 or 4 or % of participants working in schools Ofsted 3 or 4 | | Participants recruited | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Project** | **Target** | **Actual** | **Completed** | **Target** | **Actual** | **Target** | **Actual** | **Target** | **Actual** | **Completed** |
| TBT | 100 | 75 | 72 | 70% | 77% | 70% (of all participants are in Ofsted 3 or 4 schools) | 59% all participants/ 68% completers | 720 | 756 | 647 |
| TDT | 39 | 39 | 39 | 100% | 97% | Not set | Not set | 39 CPD leads/1330 participants | 39 CPD leads/1080 participants | 39 CPD leads |
| Teach First | 42 (C1&2) | 53 | 53 ongoing | 100% | 100% | Not set | Not set | 234 (C1&2) | 337 to date | 313 completed/ undertaking |

## 2.2 What worked well in recruitment

### 2.2.1 Drawing on existing networks and understanding of schools' needs

**All of the projects reported that drawing on their networks, and/or developing existing or new relationships with local intermediaries, was a key enabler for effective recruitment.**

Where providers already had networks and contacts with schools and understanding of schools' needs, for example developed through previous project and CPD delivery, they were able to use approaches which had been proven to work previously. For example, Edison's project was based on a pre-existing programme and it had well-established national and regional networks and communication channels, which supported TLIF recruitment.

Many providers drew on the support of intermediaries, which included academy trusts and TSA leads, RSCs, OA leads, local authority (LA) staff, Research Schools and system leaders. These intermediaries helped providers to identify individual schools and clusters of schools, raise awareness of and engagement in projects, and broker provider introductions. They also had knowledge of local challenges and schools' needs and contexts, which helped to effectively 'sell' projects. As the Teach First project manager commented:

> It was important that we had relationships with local MAT [multi-academy trust] 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. - *Teach First, Project Manager*

Where intermediaries such as LAs and academy trusts were not consulted, this was shown to negatively impact on recruitment. For example, TDT gave an example of an LA which they had not consulted, and which had dissuaded schools from taking part. In another example, a school that had agreed to take part was reported to have been over-ruled by their trust.

### 2.2.2 A relevant, distinctive and flexible offer

All of the projects felt that **the relevance of their project offer to schools' needs** was a key enabler for recruitment. Linked to this was **providing something distinctive to what was already on offer.**

In terms of the relevance of their offer, projects reported a range of ways in which they had met teachers'/schools' needs. This included different formats and intensity of CPD and providing CPD to a range of target groups. Aspects of different projects which were felt to have been key selling points were: collaborative, school-to-school support; sustained, whole-school offers targeted at school improvement; light-touch support focusing on a specific key challenge for the school, such as behaviour management; subject-specific CPD; and one-to one coaching for a specific group of teachers (e.g. ECTs).

Projects commonly reported that **the flexibility of their offer to meet the needs of particular schools and teachers was a key selling point.** This included a range of delivery mechanisms and flexibility in engagement. For example, the IOP project focused on improving physics teaching from a number of angles, including support for specialists, non-specialists and physics leadership, and schools could agree a package of support that met their specific needs. The Teach First project consciously chose to create a whole-school long-term leadership package, which was distinctive from other offers available to schools – especially those in Opportunity Areas.

### 2.2.3 Precise targeting of areas/school clusters/individual schools

All projects were required to target specific areas and types of schools. However, those which had a high level of success with recruitment **very precisely identified and targeted pre-defined geographical areas, clusters/groupings of schools or individual schools with specific characteristics.** For example, Edison targeted specific priority areas, whilst also building a waitlist of eligible schools which could replace any schools that dropped out of the provision. This approach enabled Edison to meet its targets, and to retain its required target number of schools. Teach First's recruitment approach mirrored its delivery model, which was based on geographical clusters, with a single Achievement Partner assigned to an area to work with a cluster of around five or six schools. The project manager explained that cohort 2 targeted different areas to cohort 1 'to spread out the support' and increase the reach of the project. This enabled Teach First to effectively meet its recruitment targets.

### 2.2.4 Credibility and reputation of project deliverer/project

**The credibility and reputation as a provider of professional development was reported to be a key enabler for recruitment for five projects**.

Edison reported that the ease with which they recruited schools could, in some part, be attributed to their trusted NAHT badging, the reputation of the existing NAHT Aspire project and their supportive ethos. Several school participants echoed the team's reports by emphasising the importance of 'an opportunity to work with an outside agency with a good reputation' to guide them through a challenging period. The Ambition team also felt that the reputation of the Ambition Institute went some way to supporting school recruitment. Likewise, for TBT, Tom Bennett's personal profile was seen as the most important marketing collateral and positive perceptions of Teach First as a CPD provider supported recruitment. The reputation of delivery staff was also important for recruitment. For example, deliverers who were experienced and successful school senior leaders, including those in highly respected local schools, gave the support credibility and relevance.

### 2.2.5 Offer of funded support

Five projects reported that **the offer of funded support made participation attractive to schools and teachers, particularly when it was led by well-respected experts**. For example, one of the case-study schools participating in the Ambition project reported that the motivation to participate was primarily financial, in that the support was funded:

> We were in a financial state to be fair. We were under notice to improve financially…so we went out and found Ambition and the Transforming Teacher Programme, made the application and obviously we were successful. – *Ambition, Senior Leader Participant*

Some providers – such as IOP and Teach First – also offered funding for supply-cover costs to enable leaders and teachers to attend CPD. This was a key enabler for recruitment because it removed schools' budget concerns and enabled participants to attend CPD, without necessarily going through their school's formal CPD application processes. In this situation, schools were often happy to support staff attending the CPD as barriers, such as cost and staff absence from teaching, had been removed.

### 2.2.6 Local delivery and/or tailoring delivery to local context

Half of the projects reported that **local delivery, and/or tailoring delivery to the local context, enabled effective recruitment.** For example, EdDevTrust coaches commented that schools were attracted to the fact that their project delivered: 'local solutions to the needs of local ECTs'. Similarly, TDT staff reported that the local experience of Expert Advisers and the delivery of local support was appealing to schools. IOP staff highlighted that, where provision was delivered in easily

accessible ‘hub’ schools and at participants’ own schools, this supported recruitment as it minimised travel and time commitments. In the same way, Ambition noted that, when project delivery took place within participating schools, this contributed to effective recruitment.

### 2.2.7 Method of recruitment

Most projects used a range of recruitment methods and what proved to be most effective varied by provider.

**Six projects used word of mouth, with four of these specifically noting its effectiveness**. This tended to become a more prominent form of recruitment as the projects became more established in target areas and gained positive feedback.

Three projects reported **the importance of securing meetings** to discuss their projects with potential participant schools, after which they tended to have more success in recruitment. In some cases, projects drew on partners to broker introductions. Projects also reported the benefit of the CPD deliverers convening or attending meetings to explain how the project worked, and draw on positive examples from schools which had already taken part.

One project - IOP – offered **taster CPD sessions and hub planning meetings, which supported recruitment**. They provided teachers with an insight into the quality and content of the project, as well as gathering useful intelligence regarding participants’ specific needs for the support, which could be used to tailor provision. For TBT, alongside the existing reputation of Tom Bennet, **a strong social media presence (for example via Twitter or Facebook) was perceived to be a key and low-cost method of effectively engaging schools**. Projects also reported developing **promotional materials, such as fliers, leaflets and newsletters, which became more effective over time as they incorporated positive examples and feedback from schools**.

## 2.3 What worked less well or was a barrier to effective recruitment

***Provider factors***

### 2.3.1 Lack of existing relationships

In contrast to the benefit reported by some projects of drawing on existing networks, **four projects highlighted challenges in recruiting schools where they had no previous relationship**. Three projects found cold calling difficult when they did not have a prior relationship with schools or an established reputation in the areas. One

project reported particular difficulties in recruiting primary schools when they did not have a previous relationship.

### 2.3.2 Insufficient briefing of intermediaries

Although there were usually advantages to projects drawing on intermediaries to aid recruitment, three projects noted downsides to this approach. The approach worked less well when **intermediaries were not properly briefed about school eligibility and the commitment required in participating in the CPD**. In some cases, this led to ineligible schools being recruited and the full details of the commitment required not being passed on.

### 2.3.3 Inappropriate timing of, and time available for, recruitment

**Three providers reported issues regarding the timing and time available for recruitment**. In some cases, this had been affected by delays in contract negotiations with DfE, which was beyond their control. Recruiting schools in the autumn term, when schools had already filled their CPD calendars, was reported to be problematic. In addition, some projects had not allocated sufficient time to recruit schools. For example, EdDevTrust set a three-month recruitment window (October to December), which, in hindsight, they realised was unrealistic. The project manager reflected that more time was needed to 'warm up the market, recruit people, and get them to start in the same academic year'.

### 2.3.4 Inaccessibility of provision

Three projects mentioned that, **where provision was delivered at a significant distance from participants' own school setting, or in less accessible rural areas, or involved travel through congested cities, the travel time involved sometimes hindered recruitment**. This reflected an earlier point that local, easily accessible provision aids recruitment.

### 2.3.5 Lack of capacity to recruit

**Three projects struggled for reasons including: not allocating sufficient funding to recruitment; lack of staff capacity; and lack of processes in place.** For example GA, which struggled with capacity to recruit, requested a smaller budget than all of the other projects, but agreed relatively ambitious targets to recruit Ofsted 3 and 4 priority schools in AEA 5/6 priority areas. The IOP team reported that recruitment was initially hampered by the lack of capacity in the delivery team to establish local contacts and networks, as Development Coaches were still being appointed. TBT found recruitment of the correct target schools challenging initially for a number of reasons. These included: time taken to work through the contracting

process, meaning that the provider started its recruitment relatively late; some perceptions of contractual ambiguity about the schools to be targeted on the part of the provider; and a lack of management processes in place, which was due to it being a relatively new organisation.

### 2.3.6 Lack of appeal of cross-phase delivery

**One project identified an issue with secondary schools being reluctant to work with CPD delivery staff based in primary schools**. This was not perceived to be an issue the other way around. The issue appeared to be related to secondary schools feeling that the primary school context was substantially different to their own and that the benefits of working with a primary-based lead would, therefore, be limited.

***External factors***

### 2.3.7 Challenging school circumstances

**Most projects reported that schools' challenging circumstances acted as a barrier to recruitment,** as this comment from a Teach First Achievement Partner demonstrates:

> I think the difficulties are that sometimes the schools that need the programme are not going to volunteer to put themselves in it…

This key recruitment barrier was related to: changes in senior leadership; competing priorities; high levels of teacher turnover; and a lack of time available for senior leaders and teachers to engage, often due to workload challenges. The Edison team commented on the pressure that target schools were under and their concerns about the demands of a multi-stranded whole-school programme. In addition, IOP reported that some schools did not see their CPD as highly relevant when they were dealing with fundamental challenges across the school and concentrating on other core subject areas. EdDevTrust reported specific challenges regarding recruiting ECTs in schools in challenging circumstances, as they were perceived to have insufficient time to give to CPD:

> The ECTs were a hard group to find and recruit. They are in schools in challenging circumstances, and about two-thirds were in their first year of teaching. They are the ones that have the least time to give. – *EDT, Project Manager*

Several projects identified high levels of turnover within schools as a hindrance to retention in the project, which led to inconsistent commitment and the ongoing need

to replace lost contacts. An illustrative example is that, in 18 of the 39 TDT schools, the person with responsibility for leading CPD changed during the life of the project.

### 2.3.8 Competing with a range of other funded initiatives and offers of support

**A small number of projects commented on the range of funded initiatives that were being offered to target schools, which made it more difficult for them to 'sell' their particular offer to schools.** For example, the EdDevTrust project manager commented that schools in OAs were 'bombarded with initiatives that are all free' making it difficult for the TLIF projects to stand out. The IOP project manager also referred to the relatively crowded landscape of science, technology, engineering and mathematics (STEM) support available to schools in the target areas.

### 2.3.9 Funding and/or finding supply cover

Although projects reported that the offer of funded support was a recruitment enabler, two project teams reported that *not funding supply cover* as part of their offer was sometimes a barrier to recruitment and retention. This tended to be more of an issue for projects targeting classroom teachers. In addition, one project reported that *finding supply cover* could also be a challenge, which could impact on recruitment and retention.

# 3 Project delivery and implementation of learning


## Summary

**Overview of participants' satisfaction (from endpoint survey data and participant interviews)**

- Edison, TBT, GA, TDT, IOP and Teach First achieved generally high levels of participant satisfaction. Feedback for Ambition and EdDevTrust was also generally positive but some elements reportedly worked less well.

**What worked well in CPD delivery**

- Approaches to CPD delivery: appropriate project staffing and continuity of staff; support and training for the project delivery team; tailoring to context; being responsive to participant feedback; and funding for schools to help them achieve their project aims.
- Forms of CPD delivery: audits to identify priorities for action; face-to-face coaching; face-to-face delivery within individual schools and to groups of schools; and incorporating time within CPD to practise techniques. Schools particularly appreciated delivery within their own settings.
- Effective CPD should incorporate a combination of approaches to, and forms of, delivery.

**What worked less well in CPD delivery**

- Inexperienced facilitators; online elements; cross-phase and cross-subject delivery.

**What worked well in implementation of CPD learning**

- **Provider factors:** structured in-school support; incorporating 'plan-do-review' and 'learn-try reflect' processes; practical, easily actionable approaches and associated resources; facilitating collaboration between schools; and involving a number of staff from the same school, especially in projects with an individual teacher-level focus.
- **School factors:** engagement and commitment of senior staff; a supportive and developmental school culture, which was supportive of informed risk taking and trusted staff to try out new approaches; and schools' willingness to build changes into existing structures.

**What worked less well in implementation of CPD learning**

- **Provider factors:** timing of provision to start part-way through the school year; and a strategy of limited support for implementation of learning within schools.

**School factors:** lack of senior leadership commitment; participants not being effectively engaged or empowered; workload/capacity issues and competing priorities and initiatives; and staff turnover. The closure of schools due to COVID-19 also impacted on the extent to which schools were able to implement their learning from these projects.

The aim of this section is to explore what worked well and less well in the delivery of TLIF projects and their support to schools to implement learning from CPD. We have drawn on the common themes emerging across all of the TLIF projects and provided selected illustrative examples. Please see the individual project reports for more in-depth data on each project.

## 3.1 Overview of participants' satisfaction with project delivery

Endpoint survey data (for Ambition, EdDevTrust, IOP, TDT and Teach First) and participant interviews for all projects showed the following levels of satisfaction with project delivery.

**Across Edison, TBT, GA, TDT, IOP and Teach First, there was generally a high level of satisfaction**, with Edison and Teach First receiving particularly positive feedback.

**Feedback on the delivery of Ambition and EdDevTrust was generally positive, but there were mixed views on particular elements.**

More detail on participants' views on effectiveness can be found in Appendix E. This Appendix draws together satisfaction data from the endpoint surveys and from participant interviews, as relevant to each project.

## 3.2 What worked well in project delivery

The following section highlights the approaches and modes of delivery, which were reported to lead to effective CPD. It is important to note that, where CPD was successful, it incorporated a range of these elements.

### 3.2.1 Appropriate staffing

**Appropriate project staffing – including high-quality and suitably experienced deliverers, with sufficient time and flexibility to tailor their support – was the most commonly mentioned enabler of effective delivery**, with interviewees across all projects mentioning this. **Also important was deliverers' independence**, which allowed them to support school improvement in a non-judgemental way.

A key factor in terms of staff experience and quality was delivery staff having relevant and recent experience as senior leaders or teachers in schools. This brought credibility, respect and understanding of schools' needs. For example, TDT's Expert Advisers were practising school senior leaders with direct, current experience

of leadership in schools in the local area, while Teach First's Achievement Partners were former headteachers, as this Teach First Achievement Partner commented:

> 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. –*Teach First, Achievement Partner*

Most of Edison's Achievement Advisers had prior experience as headteachers, with a high level of expertise and understanding of schools' challenges. Both Edison deliverers and Tom Bennett (TBT) had significant expertise in delivering a similar project. In addition, IOP's own Development Coaches and School-Based Development Coaches had high levels of physics subject knowledge and teaching and leadership experience:

> With [the IOP Development Coach] and [School-Based Development Coach] it's really good physics, really high quality, whatever they give us actually works and by the end of it we've got confirmed answers. The quality of the coaches is absolutely top notch – both of them have been outstanding. – *IOP, Teacher Participant*

Likewise, Ambition's Teacher Fellows, tutors and training managers were all qualified teachers, with Teacher Fellows and tutors having experience of senior leadership:

> I think for me, the experience is based on the people who are delivering it. And the speakers that we had were remarkable – really, really good. – *Ambition, Teacher Educator Participant*

EdDevTrust drew on teaching schools to both recruit and lead delivery, and GA expert trainers were practising teachers:

> It was somebody who's practising that themselves, if you know what I mean. So, I think the respect is there for being somebody with experience of delivering critical thinking, and being out in other schools, and seeing other ideas and sharing that good practice with us as well. – *GA, Primary Teacher Participant*

Continuity of support from the same adviser or expert over the duration of the provision was also beneficial as it helped to build trusting relationships and created a

culture in which teachers and leaders felt comfortable being challenged and being open and honest about the difficulties they were facing.

### 3.2.2 Support and training for the delivery team

**Key to successful delivery was the support and training provided to project deliverers to enable them to carry out their roles successfully and confidently.** For example, Edison's Achievement Advisers received in-depth training for their role and Teach First Achievement Partners received intensive support and training on how to group coach. This point also applied to projects where school-based staff were trained as coaches/facilitators as part of the project – for example IOP School-Based Development Coaches, GA school-based deliverers and EdDevTrust specialist coaches.

IOP school-based Development Coaches benefited from coaching support from IOP coaches, shadowing colleagues delivering CPD, training on specific elements of the project and the most up-to-date evidence-informed practices, and regional and national meetings, which provided an opportunity for networking with other coaches and sharing of best practice. All five of the IOP Development Coaches interviewed felt that they were well prepared for, and supported in, their roles. As one stated:

> Part of the time allocation to this job was to allow us to go and visit other coaches, either to support them or watch what they do. That was brilliant, I made use of that. You get a feel from those who have been doing it for a long time, you get to see the experts in action as it were and see how they cope. – *IOP, Development Coach*

Teach First Achievement Partners received extensive training in the content and delivery of the evidence-based learning modules they would be delivering to schools, which was spaced across a whole year. The detailed and intensive nature of this training was valued by the Achievement Partners. 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].

In a less intensive example, EdDevTrust specialist coaches all reported having undergone one full-day's training, which provided them with an introduction to the project and to instructional coaching. In some cases, this included role play and

modelling exercises, which were reported to be very helpful. The EdDevTrust coaches felt that this had prepared them well for their role. As one commented:

> The training was really clear. They gave you lots of opportunities during the day to think things through and to come back to things if you weren't sure about them. It prepared me well for the role. – *EdDevTrust, Coach*

### 3.2.3 Tailoring to context

**Where CPD offered a high level of tailoring to context, which participants reported was the case for five projects, it was generally more effective**. Tailoring was evidenced at individual, departmental and/or school levels across the projects. For example, participants reported that Edison Achievement Advisors were highly responsive and adaptable to their needs and willing to tailor their provision within a highly structured programme of key components. Likewise, TBT's approach rested on an avoidance of prescription, and support for tailored solutions suited to schools' contexts, which was welcomed by schools. As one participant commented: 'I think the real strength of it is that it doesn't try and tell anyone that they're right or wrong. It doesn't try to preach one solution'. In addition, school senior leaders reported that the flexible support provided by Teach First Achievement Partners, which was responsive to changes in schools' circumstances and needs, was highly effective. The CPD content of Ambition's project was also reported to have been adapted to the needs of different schools, participants or subject areas.

A key enabling feature of EdDevTrust's model was that it offered ECTs flexibility in both the timing of, and intensity with which they engaged with, the coaching conversations and project materials. This allowed them to schedule their involvement around particularly busy periods:

> What has been good is that if you don't complete a module or hand something in you're not off the course. You are able to engage as much as you are able to at the time. Things just roll on and you are able to dip in and out as much or as little as you are able to. – *EdDevTrust, ECT Participant*

Likewise, IOP participants valued coaches being adaptable to what they wanted to focus on in CPD sessions. One commented:

> They [Development Coach and School-Based Development Coach] have got a plan for what they're going to do, but if we think 'no I don't get that' they are quite happy to stop what they'd planned and go where you need. You can ask 'why are you doing it that way?' I really valued that. – *IOP, Teacher Participant*

### 3.2.4 Being responsive to feedback

**In many cases, projects were designed to be responsive to feedback from schools and built this into their project design, which was perceived to be a strength**. This resulted in a range of minor delivery adaptations to better meet schools' needs. These included:

- changing the location of delivery to increase accessibility
- adapting participation requirements e.g. reducing the number of modules or level of engagement
- changing the ordering of modules or project sequencing
- adjusting delivery to allow for more sharing of ideas and collaborative problem solving rather than direct input
- extending delivery over a longer period of time, in response to participant time constraints and to allow time for embedding learning
- allowing participants to attend CPD sessions when they may have not attended a pre-cursor course, or to access strands of support not specifically designed for them.

### 3.2.5 Funding

Unique to Teach First was a learning pot of £5,000 which all participating schools were able to access to support their identified aims. Case-study schools[10] reported that the funding was key to their effective engagement which, in many cases, funded cover for leaders to fully participate in the CPD. This allowed for dedicated time and 'headspace' to commit to the project, as this senior leader commented:

> 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 – *Teach First, Senior Leader*

IOP did not provide a learning pot but offered to pay for supply cover which facilitated participants to fully participate in, and act on, CPD,

### 3.2.6 Modes of delivery

The projects had varying delivery models, often with multiple strands, or with different strands for different participant groups. Inevitably, there were a variety of views about the benefits and drawbacks of these models, and participants' views

[10] For Teach First, all of the case-study schools were from cohort 2.

were mixed. However, particularly positive feedback was received for face-to-face provision targeted at the needs of individual participants and schools. Schools appreciated delivery within their own setting, but also benefitted from accessing CPD in local clusters of schools, and from opportunities to network with other schools and share learning. Further details on the modes of delivery that participants most frequently reported to be effective are detailed below. The most effective CPD incorporated a range of different forms of delivery.

### School audits to identify priorities for action

**Audits were beneficial in encouraging schools to explore strengths and weaknesses, and prioritise areas for improvement and associated actions**. For example, TDT's initial audits, coupled with intensive coaching and regular reviews of progress, were considered to have supported priority setting and tracking progress:

> I really value the audit tool…in terms of it giving us something to work with and areas to focus on, highlighting areas to improve, areas that we have improved, it is pretty good. – *TDT, CPD Lead Participant*

Likewise, TBT's behaviour audits helped to focus schools' actions following taught sessions.

Although not officially termed as an 'audit', a number of other projects began their delivery by identifying schools' priorities and agreeing actions, which meant that project activities were targeted effectively. In the Edison project, this included making explicit links between the CPD to be provided and school-improvement goals linked to Ofsted requirements. This both aided effective delivery and contributed to effective outcomes and impacts (see Sections 4.4, 4.5, and 4.6).

### Face-to-face coaching

**Face-to-face coaching of individual leaders or teachers formed part of many projects and was in most projects one of the most effective elements of provision**. In some cases, such as Teach First, face-to-face group coaching proved effective. In Teach First, over 96 per cent of schools engaged in individual coaching and over three-quarters of senior leaders reported that it had 'fully met their needs'. Likewise, there was consensus amongst all of the Teach First case-study schools that the individual and group coaching was one of the most effective aspects of Leading Together. Participants perceived that this was because it was focused on the school/individual needs and enabled the SLT to work together, build relationships and change the culture within the team with the support of the Achievement Partner. In addition, the flexibility to provide novice leaders with mentoring and more experienced leaders with coaching also proved beneficial. However, when they had

to move to virtual coaching during the pandemic, some schools found the group coaching to be less impactful owing to the loss of face-to-face contact and non-verbal communication. These schools tended to move from group to individual coaching.

TDT CPD Leads reported the fortnightly individual face-to-face coaching conversations that they had with their Expert Adviser to be high quality and useful. EdDevTrust's face-to-face coaching for individual ECTs was also reported to be very effective. ECTs benefitted from coaching from an external expert, which was tailored to their needs, and from developmental observations of their teaching:

> …because I have explained my situation to her…we have really tailored what we are talking about to fit me, and it has given me the opportunity to think, right, what can I get out of this? – *EdDevTrust, ECT Participant*

### Face-to-face CPD delivered to individual schools

A number of projects delivered CPD to individual schools. This included CPD for specific target groups – such as senior leaders or teachers – or for the whole school. **CPD delivered to individual schools was perceived to be particularly effective as it could be tailored to the specific needs of each school and did not incur additional travel time or costs**.

For example, Edison's Development Days targeted at the wider staff group within individual schools were highly regarded. These supported schools to identify challenges and priorities for intervention and supported them to practise, plan, review, adapt and embed new strategies:

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

### Face-to-face CPD for groups of schools

**A number of projects delivered CPD to groups of schools, which worked well in terms of supporting the sharing of learning and good practice**. For example, Edison's Network Days and TDT's CPD forums received praise for being good places for senior leaders to discuss common challenges and share techniques and strategies to tackle them:

> I've formed some really useful contacts across the town and also with the middle school, we are in contact outside of the hub as well, sharing ideas and resources. That has been a really good networking event. – *TDT, CPD Lead Participant*

Likewise, EdDevTrust's ECT workshops provided opportunities for teachers to share good practice:

> It has been nice to speak to other people and to bounce ideas off them and to think, 'I could do this', and evaluating ideas better…it's been great to share good practice. That has probably been the most positive part [of the programme], sharing good practice at the workshops. – *EdDevTrust, ECT Participant*

### Incorporating time within CPD for participants to practise techniques

**Several projects incorporated time within their delivery for participants to practise techniques, which made them more confident to try them out in their classrooms**.

As part of Edison's CPD, participants practised a range of strategies, which were supported by a raft of web-based resources and tools. These included lesson visits, Fast Learning, Achievement Teams and Venn diagrams, which were tailored to specific classes, pupils, teachers, or issues in the school.

GA's CPD was structured around teachers undertaking activities 'as students' thereby experiencing the learning themselves, as well as practising 'how' to implement techniques:

> Getting us to be involved in the tasks and essentially being the students somewhat and practising it, that was good - to see what it's like to get us thinking like the students would be. That was quite beneficial. – *GA, Secondary Geography Lead Participant*

Likewise, Ambition's CPD was praised for incorporating practical, 'off the shelf' strategies and techniques, which could be easily implemented:

> What was really good was the sessions were actually mirrored as you would deliver a lesson in class, so you had the [I do, the we do, and the you do training technique] so I thought that was quite useful to embed into your own practice as well. – *Ambition, High Leverage Teacher Participant*

## 3.3 What worked less well in project delivery

What worked less well was, in many respects, the reverse of what worked well. The key aspects which were most frequently reported to be less successful, or to be a barrier to effective delivery, are highlighted below.

### 3.3.1 Inexperienced facilitators

As described in 'What worked well', most projects were delivered by experts in the field with prior CPD delivery experience. However, **CPD was less effective when deliverers were not experts**. For example, mixed feedback was received from Teacher Educators and High Leverage Teachers about the expertise of Ambition deliverers and how well prepared they were to facilitate sessions. One High Leverage Teacher commented: 'it didn't feel like we were getting taught by an expert sometimes'.

### 3.3.2 Online elements

**The elements of provision that worked least well across all projects were the online elements**. These were least likely to be engaged with and appeared to be the least useful aspects of provision. However, experiences of remote working and online support during the pandemic may mean that online elements gradually become more effective, and more commonplace, in future CPD provision delivered to schools.

Across the TBT, GA and Edison projects, the online portals, communities/forums and resources were reported to be the least effective elements of their provision. The same was reportedly true for Ambition's online resources. In some cases, this was related to technical issues and gaining access to resources.

Views of TDT's online materials and EdDevTrust's online platform were mixed. In terms of EdDevTrust, while some ECTs reported the quality of the resources to be high and found them useful, others found the content too detailed or difficult to navigate:

> The online element has been difficult and I don't think it has had much impact. This is due to the time that is needed to access it.
> – *EdDevTrust, ECT Participant*

In addition, some ECTs struggled with the online self-study component of the project, and/or found that they were not engaging properly with the content:

> I learn better [through interacting with others], than by accessing the online content. With the online tool it's very easy just to flick

> through if you want to, and you end up skimming through it. – *EdDevTrust, ECT Participant*

There was also relatively low engagement in EdDevTrust's Community of Practice (CoP), aimed at bringing ECTs together to offer a fresh perspective beyond participants' own school as well as an opportunity to learn from each other. Although intended to be face-to-face, most CoP activities were, in practice, via the online portal. ECTs were asked to create 'resources' to share and to post reflections as part of a discussion. This was reported by ECTs to be burdensome for them.

Teach First's CPD incorporates online learning modules, in addition to modules delivered face-to-face. However, the online modules were perceived to be less effective than the face-to-face twilight modules and respondents were less likely to report that they met their needs: 'We engaged more with the face-to-face than the portal' (Senior leader). When the pandemic struck, some of the face-to-face learning modules had to take place virtually. However, the collaborative element of the training was considered challenging in this forum.

### 3.3.3 Cross-phase and cross-subject delivery

**Feedback from several projects suggested that cross-phase and cross-subject delivery was generally less effective.**

For example, the TDT forums appeared to be less useful when they were cross-phase and, for GA, there was some sense among primary participants that materials were more secondary focused, which meant that they had to spend time adapting them for use in school. In addition, some Ambition participants commented that, where strategies and techniques in the training were not appropriate for their subject, the CPD was less useful:

> Sometimes I would sit in a training session as a history teacher and think 'oh this really just isn't relevant for me, because my subject is so content-heavy'. I'm not demonstrating and modelling all the time, because we've just got to get through the content first. – *Ambition, High Leverage Teacher Participant*

However, some participants experiencing cross-phase and cross-subject CPD felt that they benefitted from understanding teaching in different contexts, so the negative perceptions were not universal.

## 3.4 Implementation of CPD learning

TLIF projects had different designs in terms of the support they offered to schools to implement the learning from CPD as highlighted below.

Four providers focused on whole-school change (Ambition, Edison, TDT and Teach First) and provided structured support for implementation of learning from CPD as an integral feature of their provision. In these projects, project delivery staff worked directly with participants in schools to support practice change. Two providers whose projects focussed on individual teachers (EdDevTrust and GA) created 'gap task' activities for participants to enable implementation of learning between sessions and built time into their project delivery to review implementation. A further two providers, which were focused on improving physics teaching and behaviour management within schools (IOP and TBT), provided training and resources which set participants up to implement the learning independently.

Projects had different aims and target groups and achieved varying degrees of success in supporting schools to implement learning from CPD. This means it is not possible to draw conclusions about one model of support, which could be a blueprint for future programmes. However, effective elements within different projects are highlighted below.

## 3.5 What facilitated implementation of CPD learning

***Project factors***

### 3.5.1 Structured in-school support

**The findings suggest that structured support embedded within CPD can be effective in bringing about whole-school change**.

Edison provided one of the clearest examples of learning from CPD becoming embedded in schools. It did this by providing support for whole-school improvement through a series of key interventions introduced to leaders at out-of-school Network Days and then implemented with the wider staff during Development Days in school. Key to the success of this approach was allowing sufficient time between Network and Development Days to plan for implementation. This included introducing staff to a range of effective interventions and approaches that were straightforward to implement, adapt and embed within different school contexts. Advisers used a coaching approach that was central to modelling a more supportive culture that continued within the schools. TDT was also successful in supporting whole-school CPD change through providing regular coaching conversations with CPD leads, who could also draw on a range of tools, resources and research evidence.

Likewise, for Teach First, the Achievement Partner support, coaching and evidence-based learning modules combined to effectively support school improvement, for example through changes to leadership practice, teaching practice and curriculum design and implementation. Key to effective delivery and implementation was an open, trusting relationship between the Achievement Partners and schools, which allowed for frank conversations, trust and a level of challenge. This was aided by the fact that the support was delivered over an extended period – two years. Also important was the fact that Achievement Partners were independent, operating outside of the accountability system and could tailor support for implementation to schools' needs.

Coe (2020) presents an evidence-based list of the components of effective teacher CPD (See Appendix I). His recommendations relate to teacher - rather than leadership-focused CPD, but nevertheless provide some important criteria against which to consider the effectiveness of implementation across the TLIF projects. Coe (2020) identifies the importance of teachers being able to observe, experiment, receive feedback, reflect on, and evaluate their new practice. Edison and TDT both provided such opportunities as an integral part of their in-school structured support processes.

### 3.5.2 Incorporation of 'plan-do-review' or 'learn-try-reflect' processes

**Incorporating a 'plan-do-review' or 'learn-try-reflect' process into CPD can be highly effective in supporting changes in teachers' practice.**

GA included a 'plan-do-review' process in its CPD for science and geography teachers. Likewise, EdDevTrust incorporated a similar 'learn-try-reflect' process. GA's 'do' phase was a gap task, which teachers were encouraged to undertake between training sessions. It involved teachers trialling new activities and techniques, which had been modelled in CPD sessions. Teachers were not directly supported by GA to undertake the gap task but, in their last CPD session, they were asked to reflect on their learning from piloting new activities. This approach gave teachers an incentive to embed the learning. As a GA teacher said:

> Because it does enable you to get up off your backside and have a go, rather than say, 'right, I've done the course, now I can put that folder in a cupboard and forget about it', which some people do. – *GA, Secondary Science Teacher Participant*

Regarding TBT, schools welcomed having enough time to have trialled implementing their plans (or aspects of them) before returning to the 'booster days'. The 'booster days' were helpful in that they encouraged participants to take some action in

advance, as well as provided an opportunity for participants to discuss what had gone well or otherwise:

> I think the Booster days were the most useful bit…until you go back and try it, and then you hit the barriers that you hadn't envisaged, and then go back to Tom [Bennett] and being able to say 'well this is really good, but this bombed completely', then other colleagues being able to say 'well, actually we found that was really hard as well'. That was the bit that kind of gave me the momentum to carry on I think… – *TBT, Senior Leader Participant*

These examples provide a different illustration of the way in which the recommendations of Coe (2020) of 'observe, experiment, receive feedback, reflect on, and evaluate' can be achieved. These projects sequenced their training so that opportunities were created to trial ideas advocated during training in school and then to reflect on, gain feedback on, and review this practice at a later training or coaching session.

### 3.5.3 Practical approaches and associated resources

**High-quality and practical 'ready to implement' project content and associated resources can effectively support changes to practice**.

Edison participants were presented with clear and effective strategies and activities (e.g. Fast Learning, Achievement Teams, lesson visits and learning conversations), which were underpinned by a comprehensive rationale, strategies, frameworks and resources. In addition, GA's modelling of practical, easy to implement activities (such as 'flat chat' and 'question generator') that could be used 'off the shelf' with pupils supported teachers to embed them in their practice:

> I think in life you're looking for something that's useful, particularly when you're busy. And they weren't massive things, but there were lots of things where you think, 'oh, I could use that there, use that there, and that would make a difference'. – *GA, Primary Science Coordinator Participant*

IOP also encouraged changes in teaching practice through practical, ready-to-implement and 'quick win' physics pedagogical strategies and experiments, which were supplemented by training resources linked to the physics curriculum.

### 3.5.4 Facilitating collaboration between schools

**A 'hub' model, which facilitates school networking can work well in supporting schools to implement CPD learning**.

IOP's hub model provided opportunities for the sharing of learning and good practice between schools, while TDT's hub model was reported to keep schools on track due to their desire to keep up with other participating schools. However, due to the need to focus on the collective needs of the group, some participants were less positive about the IOP and TDT hub models and preferred more bespoke within-school delivery tailored to their schools' priorities.

### 3.5.5 Involving multiple staff from the same school

**Implementation of learning can be supported by multiple members of staff from the same school participating in the CPD.**

This approach benefits all projects but is particularly helpful where structured implementation is not a feature of the project and CPD is targeted at individual teachers. For example, GA participants felt that this approach had created a climate for dialogue, better continuity between strategies across their schools, and more effective cross-curricular links. One trainer referred to this as the development of a 'common language'. IOP participants also commented that effective collaboration, and the generation of teaching ideas, had been facilitated by multiple members of staff from the same school being involved in the CPD. Likewise, the facilitation of group coaching in Teach First enabled middle and senior leaders to work together on school improvement strategies and initiatives.

***School factors***

### 3.5.6 Engagement and commitment of senior staff

In line with the findings of many other evaluations of initiatives aiming to support within-school change (see, for example, Brown and Zhang, 2016; Coldwell *et al.,* 2017), we found that **the direct engagement of senior staff in the CPD (as in Edison, IOP, TBT, TDT and Teach First) and/or their commitment to staff undertaking the CPD (as in IOP and TBT) were enabling factors in effective delivery and implementation**. Implementation was most effective when senior leaders committed to supporting their colleagues to implement the CPD within their schools, both by articulating a clear vision from the outset, and by providing practical support. This included agreeing to release staff to participate in CPD and providing appropriate cover; and reducing some of the other commitments of staff to enable them to reflect on their learning and make changes to their practice. Senior leaders often set the tone for how invested the school was and were also often the conduit

for ensuring staff understood the value of taking part and were willing to take on new ideas and try new approaches. In some cases, senior leaders sought the involvement and approval of their trust, federation and/or governing body which was helpful and added a layer of accountability.

Where senior leader commitment was not achieved, or was lost during project delivery, this was often a major barrier to the effective implementation of learning (see Section 3.6.3).

### 3.5.7 A supportive and developmental school culture

**A supportive and developmental culture is important for any school and project, but is perhaps most important for projects seeking to change the practice of individual staff who do not have decision-making responsibilities**.

Coe (2020)'s effective components of CPD (see Appendix I) relate to teacher, rather than leadership, CPD, and so are particularly pertinent in relation to the point above. According to Coe (2020), effective CPD operates in schools that engender trust and support professional learning, where teachers are encouraged to 'aim high', and where linkages are made between CPD and school accountability. Other research has also identified the importance of trust, and of school cultures in which teachers feel supported to take informed risks without fear of reprisal (Brown *et al*., 2016). Our evidence supports these findings. An illustration from the GA project is provided below.

A number of GA interviewees said that strong senior leader support, and cultures in which CPD and teacher development were embraced, supported effective implementation of learning. Linked to this, when teachers felt that they were trusted to exercise responsibility and autonomy to try out new ideas, there was a better chance that the learning would embed successfully. Teachers talked about the importance of having the freedom for trial and error, without fear of negative consequences if an attempt at a new way of teaching did not appear to be successful. One assistant headteacher explained how this was encouraged in their school:

> We're very lucky that [they trust us] at school. We're allowed to take risks in our classroom, and we're encouraged to try out new ideas. We don't mind if things work or don't work, we believe that having a go is really important. – *GA, Secondary Assistant Head Participant*

### 3.5.8 Schools' willingness to build change into existing structures

**A relatively natural, and effective, means of bringing about successful change in practice is building new discussions and practices into existing school structures and engagement mechanisms** to ensure that they remain 'on the agenda'. IOP, TBT and Edison effectively capitalised on schools' willingness to embed changes in this way.

IOP participants reported that they ensured that physics pedagogy was an ongoing discussion point within regular department meetings. TBT participants reported that they made use of whole-staff meetings, weekly briefings, phase meetings, INSET days and CPD sessions to discuss specific behavioural issues and to reinforce behaviour strategies. Likewise, in Edison schools, aspects of the programme had been integrated into school improvement plans, performance management processes and meeting schedules, ensuring their continuation over the longer-term. These approaches were facilitated by numerous staff from the same school having attended the CPD.

Ambition's experience in this regard was more mixed. Two Ambition schools had managed to allocate time during the school day for staff to engage with the CPD and discuss how to embed the learning. In contrast, across three schools, sessions took place after school when, according to one senior leader 'everybody is really tired [and] people have been teaching all day'. This minimised the likelihood of effective implementation.

## 3.6 What worked less well/was a barrier to CPD implementation

***Project factors***

### 3.6.1 Timing and scheduling of provision

For a number projects, **the timing of project activity to start part-way through the academic year was a challenging factor**. This proved problematic in terms of fitting a new intervention into schools' established planning cycles and timetables. It was felt across these projects that, ideally, preparations should start after the May half-term break, enabling CPD and/or the embedding of interventions to be planned into the next academic year's calendar.

### 3.6.2 Limited support for implementation of learning in schools

**Schools involved in projects that provided limited support for implementation had varied implementation success**.

The TBT project avoided prescription, encouraging participants to self-reflect on the efficacy of their behaviour management systems and make informed decisions on which aspects of project learning to implement. In most schools, the learning acquired through the TBT project was implemented as tweaks to existing policies, or it was used to build on existing developments, depending on the needs of the school. Some schools in Ofsted category 3, which were on an upward trajectory, successfully transformed their behaviour management systems. However, participants in a small minority of other Ofsted category 3 or 4 schools reported that the learning from their CPD was not implemented because of a misalignment between the style, content, and support for implementation delivered by TBT, and what participants were expecting to receive. A lack of senior leadership commitment to implementation within these schools may have also contributed to a lack of implementation.

***School factors***

### 3.6.3 Lack of senior leadership commitment

**A lack of senior leadership commitment to projects was a key barrier to the delivery of CPD and implementation of learning**. This was true for projects which focused on whole-school change and for those which focused on individual teachers. In some cases, this was brought about by a change in the senior leadership team and a shift in school priorities, which resulted in a 'downgrading' in the importance of the project and a reduced chance of meaningful practice change in school. As this TBT project manager explained:

> There was a strong sense of nobody knew if the things from this programme would be implemented, because a new academy trust was taking over. So, there was a high level of uncertainty there…we've had as much impact as we could have…because of the uncertainty. – *TBT, Project Manager*

To safeguard against potential issues resulting from a single senior leader leaving, in an ideal scenario several members of the leadership team should participate in, or be committed to, the project to support continuity.

In other cases – as was the case with EdDevTrust – senior leaders were not sufficiently engaged in the project from the outset. The plan for EdDevTrust was that training would be provided to senior leaders on the use of research evidence, providing them with expertise to support their ECTs, and to develop a culture of professional learning within their schools. However, this element was not delivered which resulted in a lack of engagement of senior leaders in the project.

Consequently, some ECTs reported a lack of support from senior staff, which hampered their ability to put their learning into practice:

> We have been left on our own with Accelerate. I know we have our coach, but it's up to us to keep on track with everything. I don't know whether there was a way for the headteacher to check whether we are on track, but involving them further might have been beneficial. – *EdDevTrust, ECT Participant*

EdDevTrust suffered from considerable drop out, which appears to have been caused, at least in part, by ECTs not being adequately encouraged or supported to participate in all aspects of the 'plan-do-review' cycle.

### 3.6.4 Participants not being effectively engaged or empowered

**Where teachers were asked to undertake CPD rather than invited to volunteer, and the reasons for, and benefits of, their involvement were not fully or sensitively explained, this limited what they gained from CPD and any resulting changes to their practice**. For example, some High Leverage Teachers involved in Ambition perceived a stigma, and a negative connotation attached to their involvement, feeling they had been asked to take part due to deficiencies in their teaching. This made them quite unwilling to enact the learning in their day-to-day practices:

> At one point I felt like I was on that programme because I was a bad teacher, because I wasn't doing the right things. – *Ambition, High Leverage Teacher Participant*

The vast majority of TBT participants were self-selecting senior leaders who were highly committed to the project. However, in some instances, senior leaders sent representatives who were not fully committed, or who lacked the authority to instigate changes in their schools. This acted as a significant barrier to implementation.

In some cases, a lack of willingness of non-participating teachers to commit to changes instigated by whole-school change projects was a barrier to implementation, as reported by this Teach First senior leader:

> 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 set in their ways a little bit…I think initially people felt quite threatened' – *Teach First, Senior Leader*

### 3.6.5 Workload/capacity issues and competing policy priorities and initiatives

**Project interviewees mentioned issues relating to workload and capacity, as well as competing priorities, as barriers to delivery and implementation in schools**. High workload and competing priorities placed constraints on participants' capacity, making it difficult for them to find the necessary time to both attend full-day CPD and pilot and embed new practices which could inhibit the pace of change. Where schools were participating during the pandemic, these challenges were intensified. Prioritisation and identifying essential activities was reported to be helpful.

In addition, schools' priorities could change during project involvement, for example as a result of an Ofsted inspection or being offered other support, which impacted on project continuity:

> Because it's an Opportunity Area, a lot of my schools have now been offered school-to-school support through that. Now they're saying, 'we've got too much going on', and I've got to try really hard to … keep my momentum up with those schools, because obviously [they] can only cope with a certain amount. – *Teach First, Achievement Partner*

### 3.6.6 Staff turnover

**A commonly cited and significant obstacle to the successful embedding of learning was staff turnover**. This included senior leaders leaving the school, or teaching altogether. This led to both challenges in maintaining momentum during interim arrangements and when new senior leaders were appointed, as well as the learning that individuals had acquired being lost when they left the school, or the profession.

In two Ambition case-study schools, senior leadership team members changed or left the school. As a result, work on the project within the schools was essentially lost. Additionally, for those teachers who had been through a lengthy professional development programme only to see it drop off as a school priority, there was a feeling of frustration and disappointment.

Staff turnover is common, especially in schools targeted by TLIF. To ensure new learning and practices can be sustained, it is important that schools can commit to CPD and that new staff are trained and supported when they join. A possible way to do this is a memorandum of understanding signed by schools before project activity begins to gain their commitment to sustaining activity, new learning, and practices.

### 3.6.7 The impact of COVID-19

For most of the projects, the sudden closure of schools to the majority of pupils from March 2020 due to the COVID-19 pandemic severely impacted the implementation of key elements of their approaches, which were becoming established or due to continue when TLIF project contracts came to an end.

Teach First was particularly affected by COVID-19 having to adapt their delivery approaches to accommodate more remote learning which, particularly in terms of school collaboration, was perceived to be less effective than face-to-face provision. In addition, schools' attention had to be diverted to adapting teaching and meeting pupils' support needs which could limit their capacity to engage with project activities and slowed the pace of change:

> 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 - *Teach First, Achievement Partner*

Where possible, Achievement Partners revised and tailored plans and activities to fit the new context.

# 4 Outcomes and impacts

## Summary

### Achievement of outcomes across the fund

**There was strong evidence** that TLIF contributed to positive changes in individuals' personal teaching and leadership practices.

**There was moderate evidence** that TLIF had an impact on whole-school teaching practices and whole-school culture change.

**There was mixed evidence** on retention and progression intentions – TLIF appeared to contribute to increased job satisfaction, but there was less evidence that it enhanced intention to progress within the profession. An increase in satisfaction sometimes strengthened commitment to current schools, thus aiding retention intentions. These findings are supported by similar outcomes from the SWC analysis of retention and progression impacts (see below).

**There was limited evidence** that TLIF led to changes in motivation for professional development, or in the sharing of CPD across schools, although many participants were satisfied with the specific CPD they had received.

### Achievement of retention and progression impacts across the Fund

SWC analysis showed that TLIF had positive impact on retention but no observable impact on progression. It had an apparent positive impact on direct project participants but no observable impact on TLIF schools as a whole. Positive findings were that TLIF direct participants were significantly more likely than teachers and leaders not participating in TLIF to: remain in the teaching profession; remain in challenging schools; and remain in the same school. It is possible that the strength of these estimated effects on direct participants were overstated, as 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.

### Achievement of outcomes across the TLIF projects

**Edison, TDT and Teach First had strong evidence of change** across **most** of the TLIF outcomes. All three projects had a whole-school focus and their key goals were strongly aligned with the majority of the TLIF's outcomes.

**IOP, Ambition and TBT had evidence of change** on the **specific** TLIF outcomes that were closely related to their project-specific goals, although Ambition had mixed evidence on whole-school practices, which was a key focus for their project.

**There were mixed views about the extent to which EdDevTrust and GA achieved their outcomes**.

## Achievement of retention and progression impacts across the TLIF projects

**At direct-participant level, most of the projects had a positive impact on *retention*, and most effects were statistically significant.** However, it was not possible to disentangle the effect of the programme from other non-observed systematic differences between participants and non-participants, so these results may be over-estimated. Impacts for GA and Teach First were particularly strong. In contrast, IOP had a negative effect on retention in challenging schools, and in the same school, and TBT had no effect on retention in challenging schools.

**At whole-school level, none of the five projects that intended to have whole-school impacts had a significant positive effect on *retention*** and TBT had a significantly negative effect on retention within the profession.

**At direct-participant-level, most of the projects had a small positive effect on *progression*, but these results were generally not statistically significant.** Key exceptions were Teach First, which had significantly positive effects on progression in the profession and in challenging schools, and TBT, which had a significantly positive effect on progression within the profession.

**At whole-school level, none of the five projects that intended to have whole-school impacts had an effect, significant or otherwise, on *progression***.

## Progress towards pupil impacts

**Most of the TLIF projects were reported by interviewees to have contributed to changes in pupils' learning behaviours.** Across some of the projects (Edison, EdDevTrust, GA, IOP, TDT and Teach First), there was perceptual evidence that these changes may also have contributed to improved progress and/or attainment for some pupils. However, it was too early to judge the impact of TLIF on pupil attainment, and this evaluation did not measure pupil attainment impacts due to the cancellation of national examinations in 2020 and 2021.

## Influence of project design features on outcomes and impacts

**Projects with a moderate to long duration of two terms or more were more likely to be associated with positive outcomes and impacts than those with very short duration**, although GA (a short-duration project) did have significantly positive impacts on participant retention. To be truly effective, moderate to long duration needed to be combined with high-quality delivery and support for implementation.

**Short duration projects could have effective outcomes if their goals/scope were tightly defined** as in the case of TBT, which focused specifically on behaviour management**.**

There was no clear relationship between the relative cost of the project and the achievement of outcomes or impacts. **High project cost was not necessarily a determinant**, although the outcomes and impacts for Teach First, one of the higher-cost projects, were particularly strong. While the outcome evidence relating to GA (a very low-cost project) was quite mixed, its impact on retention in the profession, both in challenging schools, and in the same school, was strong.

## 4.1 Context on the synthesis of outcome data

This section presents a synthesis of findings from the project-level surveys, case studies and qualitative interviews – i.e. participant-reported outcome data. Please note the following caveats when interpreting the synthesis of data in this report.

- **Project-level surveys did not have a comparison group design so each project evaluation only showed an association between each project and its outcomes.** It is possible that any reported project-level outcomes might still have been realised in the absence of the intervention.
- **For projects with no survey element (Edison, GA and TBT), we are only able to report perceptions of outcomes and impacts explored in the interviews.** This project data should, therefore, be regarded as indicative rather than conclusive.
- **Our original intention was to conduct a fund-level survey analysis, in which we would have treated all project-level survey responses as one TLIF dataset.** This approach would have enabled an assessment of the overall effectiveness of the fund, and sub-group analysis would have enabled us to ascertain any differences in outcomes by TLIF project, or by type of participant. However, the Covid-19 pandemic resulted in schools closing to most pupils from 20th March 2020, just as most of the project surveys were being sent to schools for completion, and the DfE, NFER and SIoE agreed that communications with schools should cease during this period. The result was that project-level responses to the endpoint survey were lower than anticipated. Concerns about small numbers of respondents in some of the projects (see Table 2) led the DfE to request NFER and SIoE to remove the planned fund-level survey analysis from the evaluation.

As a result of these caveats, we are unable to provide a robust survey-based assessment of the overall effectiveness either of the TLIF fund, or of the relative effectiveness of the projects within it. However, we provide a *qualitative description*

of differences in outcomes across the TLIF projects. We do this by presenting and comparing each project's survey analysis, and each project's qualitative analysis, according to each anticipated TLIF outcome. It is important to recognise that there has been no statistical testing of any reported differences between the projects' survey outcomes. Also, as some of the survey response numbers were small, the data is arguably less likely to have detected statistically significant changes than might have been the case had we achieved larger samples. Where we have detected changes on the projects with smaller numbers of participants (such as TDT), this is particularly positive. We have some results where there was 'no detectable change'. This does not necessarily mean that some change did not occur; rather, that our surveys were not able to *detect* any change.

Additionally, while five of the projects had a survey, three (Edison, GA and TBT) did not. This means that, when 'comparing' outcomes, we are not always drawing on equivalent data. It is very important that key judgements or decisions are not made solely on the basis of these comparisons. However, the fund-level synthesis does provide an indication of potential patterns in perceived or observed outcomes, which will be useful in future planning.

## 4.2 Assessing achievement of the TLIF's outcomes and impacts

Each of the TLIF projects aimed to contribute to a set of overarching TLIF outcomes and impacts. Each project also had intended bespoke project-level outcomes. The individual project evaluation reports provide a summary of each project's contribution to the overarching TLIF outcomes and the extent to which each project was successful in achieving its bespoke outcomes. The analysis of the bespoke outcomes is not repeated or synthesised here (unless a project outcome was closely related to a fund-level outcome)[11], because the range of project-level outcomes was wide and not well suited to comparison. This report, therefore, focuses on the contribution that the TLIF projects made to the overarching TLIF outcomes and impacts[12], which we describe in the figure below. The data sources contributing to the assessment of these outcomes and impacts are as detailed below.

- **Achievement of outcomes** – survey and qualitative data.
- **Progress towards impacts (teacher retention/progression and pupil attainment)** – survey and qualitative data.

[11] For example, many of the IOP's project-level outcomes were subject-specific equivalents of the general outcomes identified for the TLIF.
[12] Outcomes are defined as changes in teacher/leader behaviours, dispositions, attitudes and practices. Impacts are defined as improvements in teacher/leader and pupil trajectories (e.g. actual retention, progression and attainment), and improvements in the demand for CPD.

- **Achievement of impacts (teacher retention/progression[13])** –SWC analysis.

**Figure 2 Intended fund-level outcomes: teachers**

| **Improved quality of teaching** | **Outcome** |
|---|---|
| Confidence/self-efficacy<br>Subject knowledge<br>Pedagogical knowledge (content and generic)<br>Knowledge of engaging and managing pupils<br>Sense of community<br>Changes in practice | Outcome 1 |
| **Satisfaction and retention** | **Outcome** |
| Level of satisfaction<br>Likelihood to stay in profession | Outcome 2 |

**Figure 3 Intended fund-level outcomes: senior leaders and middle leaders**

| **Improved quality of leadership** | **Outcome** |
|---|---|
| Confidence<br>Knowledge<br>Skills<br>Changes in leadership practice | Outcome 3 |
| **Satisfaction and retention** | **Outcome** |
| Level of satisfaction<br>Likelihood to stay in profession | Outcome 2[14] |

[13] The original research design included an assessment of the impact of TLIF on pupil attainment, using NPD data. The cancellation of examinations in 2020 due to the Covid-19 pandemic meant that this element of the evaluation had to be removed. We did, however, collect qualitative perceptions data on the impact of TLIF on pupil attainment.

[14] This is identical to Outcome 2 above, but for senior and middle leaders rather than teachers.

**Figure 4 Intended fund-level outcomes and impacts: schools**

| **Retention and progression** | **Impact** |
|---|---|
| Improved teacher/middle leader/senior leader commitment – measured by retention and progression data | Impact 1 |
| **Impacts of improved leader/teacher quality** | **Impact** |
| Increased pupil attainment<br>Improved pupil social mobility via exploring the attainment of pupils eligible for free school meals | Impact 2<br>Impact 2 |
| **Sustainability and demand for CPD** | **Impact/Outcome** |
| Improved capacity/sustainable change[15]<br>Increased engagement in/demand for CPD | Impact 3<br>Outcome 4 |

For each of the five projects with a survey, we used factor analysis to undertake analysis of the fund-level outcomes. This technique summarises information from a number of items asked in both the baseline and endpoint project surveys into a smaller set of reliable measures. By exploring whether there were statistically significant changes in the mean scores of these factors (on an eight-point scale) between baseline and endpoint[16], we were able to say whether each of the projects was associated with positive TLIF outcomes. This method allowed for a more robust and straightforward analysis than comparing single items within each project survey.

The analysis was based on a matched sample of respondents who answered at both baseline and endpoint within each project. It 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 four 'all respondent' factors. 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 four factors for class teachers (CTs), four factors for middle leaders (MLs) and two factors for senior leaders (SLs). Appendix C provides full details of the survey items that loaded onto each factor.

## 4.3 Outcomes

The derived factors were closely aligned with the outcomes that TLIF aimed to achieve (outlined in Figures 2-4). When we designed the core survey questions, we consulted the literature and existing survey scales relating to teaching, leadership,

[15] Measurement of this impact was not part of the evaluation.
[16] Results were considered statistically significant if the probability of a result occurring by chance was less than five per cent ($p = < 0.05$).

and school culture change. As a result, our surveys effectively measured the constructs that they were designed to. This close alignment between the factors and the intended TLIF outcomes provides a strong rationale for using the factors as the basis for reporting outcome data – both quantitative and qualitative. The factors map onto the four TLIF outcome targets as follows (more detail is provided in Appendix C).

- Outcome 1: improved teaching quality.
    - Personal knowledge for effective teaching (Factors 5 and 9).
    - School teaching quality (Factors 6, 10 and 13).
- Outcome 2: satisfaction and retention.
    - Opportunities for career progression (Factors 8, 12 and 14).
- Outcome 3: improved leadership quality.
    - Effectiveness of school leadership (Factor 1).
    - Effectiveness of school culture (Factor 3).
- Outcome 4: increased engagement in/demand for CPD.
    - Effectiveness of professional development (Factor 2).
    - Motivation for professional development/teaching-focused professional development (Factors 4, 7 and 11).

The individual TLIF projects were very different in design, scale, scope and delivery method. They were commissioned to explore how effectively different types of approach could achieve TLIF outcomes. Figure 5 summarises the key features of each project's provision, including the duration, frequency and extent of coverage of its delivery (combined to form an 'intensity' score), as well as its relative cost. It also shows the extent to which the fund-level outcomes were key targets for each project. We draw on this information in Section 4.5, as important context when interpreting the relative effectiveness of each TLIF project in achieving the TLIF outcomes.

**Figure 5 Key features of the projects, and their expectations regarding TLIF fund-level outcomes**

| Project | 1. Duration of provision (months)[17] | 2. Hours of provision (per participant)[18] | 3. Proportion of school staff engaged[19] | 4. Intensity of delivery model (COMPOSITE OF COLUMNS 1-3) | 5. Range of delivery modes[20] | 6. Relative per participant cost[21] | 7. Number of TLIF fund outcomes worked towards |
|---|---|---|---|---|---|---|---|
| **Ambition** | Long | Low | Medium/high | **Moderate** | Moderate | High | Seven |
| **EdDevTrust** | Long | High | Low | **Intensive** | Wide | Medium | Six (not 'school teaching quality') |
| **Edison** | Long | Moderate | Low/medium | **Moderate** | Wide | Low | Seven |
| **IOP** | Long | Low | Medium | **Moderate** | Wide | Medium | Six (not 'effectiveness of school culture') |
| **GA** | Short | Low | Low | **Light touch** | Moderate | Low | Five (not 'effectiveness of leadership' or of 'school culture') |

[17] We categorised up to six months as 'short'; over six to 11 months as 'moderate'; and 12 or more months as 'long'.
[18] We categorised less than ten days as 'low'; 10-29 days as 'moderate'; and 30 or more days as 'high'.
[19] We categorised an individual or a small number of teachers as 'low'; all senior leaders/middle leaders, or all staff in a department or key stage as 'medium'; and all school staff as 'high'.
[20] We categorised projects into two groups: a wide range (five to six modes), and a moderate range (three modes). No projects had four modes of delivery and no projects had fewer than three.
[21] Calculated by comparing the overall cost specified in the project's bid against the number of participants the project was contracted to recruit.

| Project | 1. Duration of provision (months)[17] | 2. Hours of provision (per participant)[18] | 3. Proportion of school staff engaged[19] | 4. Intensity of delivery model (COMPOSITE OF COLUMNS 1-3) | 5. Range of delivery modes[20] | 6. Relative per participant cost[21] | 7. Number of TLIF fund outcomes worked towards |
|---|---|---|---|---|---|---|---|
| **TBT** | Short | Low | Medium/high | **Light touch** | Moderate | Low | Six (not 'school teaching quality') |
| **TDT** | Long | High | Low | **Intensive** | Wide | High | Six (not 'effective personal teaching') |
| **Teach First** | Long | Moderate | Medium | **Intensive** | Wide | High | Six (not 'effective personal teaching') |

## 4.4 Achievement of outcomes across the fund

Appendix F provides a summary of the TLIF projects' effectiveness in meeting the TLIF outcomes. It includes four figures – each of which reports findings for every project in relation to one of the four TLIF outcome areas. In the interests of transparency, the figures describe the type of evidence that informs our reporting of each outcome, whether that be quantitative, qualitative or both. Fund-level findings arising from these summaries are outlined below. The factors that contributed to achievement, or non-achievement, of outcomes have been discussed in Section 3.

### 4.4.1 Strong indications of positive change

**There are strong indications that TLIF contributed to positive changes in individuals' personal teaching and leadership practices** (see Appendix F, Figures 13 and 15) There are many examples across the projects of teachers growing in pedagogical confidence and competence, and increasingly using a range of evidence-informed teaching approaches and techniques in their classrooms. Similarly, leaders developed new skills, approaches and competencies across a wide spectrum of practices, including prioritisation, school self-evaluation, resource management, behaviour management, distributed leadership and cross-school or academy trust partnership working.

#### Personal knowledge for effective teaching

**Ambition, Edison, EdDevTrust, IOP and Teach First showed evidence of change on this outcome**[22] (for IOP, the change was on 'personal knowledge for effective *physics* teaching'). These findings are encouraging for these projects as, for four of them, the development of personal teaching practice was a key focus of their provision[23].

**GA and TBT had a mixed picture of change**. TBT's key focus was behaviour management. Pedagogical improvement was not a direct intended outcome for this project. However, when schools were highly effective at implementing whole-school behaviour management strategies, this tended to filter down to classrooms, freeing up time for teachers to focus on teaching and learning. GA set out to improve the quality of geography and science teaching in schools. While this project contributed to improvements in some teachers' *pedagogy* and *confidence*, for example by helping them to develop effective generic teaching techniques, it had less impact on their *subject knowledge* than intended.

[22] Improvement in teaching quality was not a goal for the TDT project, so there is no data to report.
[23] In spite of the fact that this was not a key focus of the Teach First project, both survey and qualitative data showed a positive change on this factor for this project.

### Effectiveness of school leadership

**Edison, TBT, TDT and Teach First showed evidence of change on this outcome**[24]. Improving the quality of leadership was a key goal for all of these projects, so these findings are encouraging.

**Ambition and IOP had mixed outcomes**. Improving the quality of leadership was a key objective for Ambition, but a lesser goal for IOP. Ambition detected a positive change on the survey factor: 'leadership effectiveness' although interviewees had mixed perceptions of the extent to which leadership practice had improved. In contrast, IOP detected no change on the survey factor: *physics* leadership effectiveness, but interviewees were positive. Physics leaders and specialist physics teachers had reportedly acquired new skills in how to coach effectively, how to deliver CPD, and how to support non-specialist teacher colleagues.

**EdDevTrust had a lack of positive outcomes**. The survey detected no change on the factor: 'leadership effectiveness', and qualitative interviews painted a fairly negative picture. Although not a significant focus of the project, EdDevTrust had an initial aim of increasing senior leaders' commitment to developing ECTs, and to developing a culture of coaching. However, there was little evidence of this aim being achieved, with most ECTs reporting that school leaders' engagement was low. Similarly, coaches reported having very little contact with anyone in participating schools other than their linked ECT.

## 4.4.2 Moderate evidence of positive change

**There is moderate evidence that TLIF had an impact on whole-school teaching practices and whole-school culture change** (see Appendix F, Figures 13 and 15). Wider school-level outcomes were evidenced across fewer projects, although there were some positive examples. These included schools: having more open discussions; developing trust, respect and shared responsibility; and being calmer, happier, and more enriched environments.

### School teaching quality

**Edison, TDT and Teach First showed evidence of positive change on this outcome**. All three projects had a whole-school focus, and intended to change cultures and practices across schools, rather than solely among direct participants. It is encouraging that they appeared to be achieving this aim.

**Other projects (Ambition, GA and IOP) had a mixed picture of change**[25]. Ambition survey results varied by participant *type*, with class teachers and senior leaders recording

[24] Improvement in leadership quality was not a goal for the GA project, so there is no data to report.
[25] School culture change was not an anticipated outcome for GA and IOP. Therefore, we collected no qualitative data on this outcome for these projects, and we should not read too much into the 'no change' survey results for IOP.

a positive change, but there was no detectable change for middle leaders. Qualitative data for Ambition and GA both also showed that the effectiveness of whole-school engagement varied according to the level of practical support and resources for it within the school. The IOP survey detected no change, but this is not surprising given that this project focused specifically on physics teaching. Interviewees suggested that the project improved physics knowledge, pedagogy and confidence *across science departments*, as well as among individual participants. This demonstrates that there was some evidence, albeit subject specific, of changes in school teaching quality.

#### Effectiveness of school culture

**Edison, TBT, TDT and Teach First showed evidence of positive change on this outcome**. For Edison, TBT and TDT, qualitative data painted strong indications of change, although for TDT, which also had survey data, there was no detectable change on the factor: 'effectiveness of school culture'. There was positive change on this survey factor for the Teach First project, however.

**Ambition and EdDevTrust showed no evidence of change**. Both projects had surveys, and did not detect any change on the factor: 'effectiveness of school culture'. Qualitative findings for EdDevTrust showed that few ECTs felt more able to manage their workload, despite this being a 'culture change' goal for the project, because many had received only limited support from their senior leaders to achieve this.

### 4.4.3 Mixed evidence

**While there is some evidence that TLIF contributed to increased job satisfaction, there is less evidence that it impacted on intentions to progress within the profession** (see Appendix F, Figure 14). In some cases, a fine-grained focus on pedagogy, or on the specific needs of the school, rekindled a passion for teaching and leadership, which improved job satisfaction. Interestingly, this increased satisfaction often strengthened teachers' and leaders' desire to put their current pupils and schools first, rather than to focus on their own career development. This may have aided retention in the short-term, but not necessarily progression.

Where there was evidence of enhanced intentions to progress within the profession, this was aided by direct support for individuals (for example, via coaching), which included explicit discussions about career progression.

These findings are supported by similar outcomes from the SWC analysis of retention and progression impacts, which are discussed further in Section 4.6.1).

### 4.4.4 Little evidence of positive change

**There is little evidence that TLIF led to changes in motivation for professional development[26], although many participants were satisfied with the CPD received** (see Appendix F, Figure 16). Even where there were high levels of satisfaction with the CPD received, it was only in a few cases that this translated into a detectable change in: desire to develop more broadly as professionals in future; a wider diffusion of professional learning across schools; the development of sustainable CPD capacity for the future. Where this did happen, the TLIF CPD tended to be well tailored to the needs of individuals, departments and schools, and well aligned to individual performance management or school-level improvement systems.

#### Effectiveness of professional development

**Edison, IOP, TDT and Teach First showed evidence of positive change on this outcome**. Edison reportedly achieved this by complementing (rather than competing with) other CPD programmes, and by supporting leaders to 'quality control' other CPD. There was also evidence that the project improved capacity for delivering CPD, leading to the prospect of sustainable change. For Teach First change was detected on the survey factor: 'effectiveness of professional development', with qualitative interviews showing that, although improving the effectiveness of CPD was only an explicit development priority in some Teach First schools, in others it improved as a product of the work done to upskill leaders – especially middle leaders. For IOP, positive change was detected on the survey factor: 'effectiveness of *physics* professional development' and interviewees added that the project had supported effective networking, which had been personally developmental. Although the TDT survey detected no change, interviewed CPD leads were very positive about their professional development.

**Ambition, GA, EdDevTrust and TBT showed no evidence of change**. Participants across most of these projects expressed a level of satisfaction with the CPD they had received personally through their projects (see Appendix E), but were not yet identifying wider diffusion of professional learning across their schools. TDT was the only TLIF project that had an explicit goal to change whole-school CPD practices and processes, so this is perhaps not surprising.

#### Motivation for professional development/teaching-focused professional development

**Ambition, Edison and TDT showed evidence of positive change on this outcome**. For Edison, the incremental, developmental and supportive nature of the provision meant that teachers were more engaged. TDT interviews showed that, although CPD leads were

[26] Based on two factors: 'motivation for professional development' and 'motivation for teaching-focused professional development' – these are mirror versions of the same outcome for projects with a subject/teacher-focused remit versus those with a whole-school/leadership-focused remit.

already highly motivated at the beginning of the project[27], teaching staff in participating schools had become more positive about professional development. Ambition detected a positive change on the survey factor: 'motivation for teaching-focused professional development' (although this factor was not significant for middle leaders), but had limited qualitative confirmation of this finding. There was some evidence of teacher educators developing a greater interest in research-informed practice.

**EdDevTrust, GA, TBT and Teach First had either negligible or mixed reports of change**. Just one TBT senior leader said that the project had reinforced the importance of evidence-informed practice. GA participants felt that the project offered high-quality CPD, but this did not appear to have affected their disposition towards future CPD. EdDevTrust and Teach First detected no change on either of the survey measures. However, in interviews, EdDevTrust coaches and senior leaders felt that the ECTs *who had a successful experience* with the project were likely to have developed a life-long positive attitude towards CPD. However, there was no suggestion that involvement in the project had led to a greater demand for CPD beyond these direct participants. Similarly, Teach First qualitative interviews indicated that, while in some schools there had been an increased demand for and uptake of CPD, this had occurred primarily among participating leaders, with no clear evidence of spread to other teachers.

## 4.5 Achievement of outcomes across the TLIF projects

As demonstrated in the section above, achievement of the TLIF outcomes across projects has been variable. It is important to recognise that there are a number of challenges in making comparisons between the projects – both methodological and contextual. First, as outlined in Section 4.1, there are differences in the data sources available for each project, and also in the number of respondents who responded to baseline and endpoint surveys, which mean that comparisons must be treated cautiously. Second, as outlined in Figure 5, the projects varied considerably in scale and scope, and also in the extent to which the TLIF outcomes were a key foci for them. These contextual factors are taken into account as we draw conclusions in this section. The data informing this section can be found in Figure 5 and Appendix F.

**Edison, TDT and Teach First presented strong evidence of positive change across most of the TLIF outcomes**. For Edison schools, there were reports of positive change across six of the seven TLIF outcomes (with mixed perceptions of impact on opportunities for career progression). For TDT and Teach First schools, there was evidence of positive change across all of the TLIF outcomes that were relevant for these projects, again, with mixed results on opportunities for career progression and, for Teach First, motivations for professional development.

[27] TDT participants achieved the maximum possible survey score on motivation at baseline, so it was not statistically possible to detect a positive change between baseline and endpoint.

All three projects had a whole-school focus and their key goals were strongly aligned with the large majority of the TLIF's outcomes. These projects were designed to show change on these outcomes and the fact that they did so is encouraging. Edison achieved these outcomes through a relatively low-cost project that was moderate in intensity, and which offered a wide range of delivery modes for primary schools (see Figure 5). These factors combined suggest that this project offered good value for money relative to the other projects. Participant views of the project were also consistently *very good* (see Appendix E).

TDT and Teach First both achieved their outcomes through projects that, although relatively high in cost, were matched with high-intensity delivery and a wide range of delivery modes across both primary and secondary schools (see Figure 5). Participant views of the TDT project were *good*, with some elements considered excellent, but others less effective (see Appendix E). In terms of Teach First, 93 per cent of surveyed participants rated their experience as very good or good, despite the disruption caused by Covid-19.

**IOP, Ambition and TBT showed evidence of positive change – particularly on specific TLIF outcomes.**

For IOP participants, there was evidence of positive change across three of the six TLIF outcomes that were relevant for this project (personal *physics* teaching effectiveness, effectiveness of *physics* professional development and opportunities for career progression). There was mixed evidence of change on school teaching effectiveness, (physics) leadership effectiveness, and motivation for professional development. IOP achieved these outcomes through a relatively medium-cost, moderate-intensity project, which offered a wide range of delivery modes for secondary schools (See Figure 5). Participant views of the project were consistently *good*, and participants expressed high levels of satisfaction with the project (see Appendix E).

For Ambition schools, there was evidence of positive change across three of the seven TLIF outcomes that were relevant for this project. These were all on teacher-specific outcomes (personal teaching effectiveness, motivation for professional development and opportunities for career progression). There was mixed evidence of change on the school-level outcomes (school teaching effectiveness, leadership effectiveness, school culture change and effectiveness of professional development). This project had a whole-school focus, working with participants at a number of levels in each school. It only achieved its whole-school goals to some extent, with variable outcomes across different participants and schools. Ambition was a relatively high-cost project, which offered moderate-intensity provision and a moderate range of delivery modes for primary and secondary schools (see Figure 5). Participant views of the project were *good* overall, but with mixed views about some aspects of the provision (see Appendix E).

For TBT schools, there was evidence of positive change across two of the six TLIF outcomes that were relevant for this project (leadership effectiveness and school culture change). These two outcomes were highly relevant to the focus of this project, which had a principal focus on whole-school behaviour management change. Teacher-specific fund outcomes that were a less direct focus for this project, although among its wider goals, showed mixed evidence of change (personal teaching quality, effectiveness of professional development, motivation for professional development and opportunities for career progression). TBT was a relatively low-cost project, which offered light-touch provision and a moderate range of delivery modes for primary and secondary schools (see Figure 5). Participant views of the project were consistently *very good* (see Appendix E).

**Both EdDevTrust and GA had a more mixed picture of change**. It is notable that these two projects were commissioned in the second round of TLIF funding and operated over a shorter timeframe than the other projects. This may have impacted on our ability to detect change for these projects.

Across GA schools there were mixed reports of change, or no reported changes, on the five TLIF outcomes that were relevant for this project (personal teaching effectiveness, school teaching effectiveness, effectiveness of professional development, motivation for professional development and opportunities for career progression). GA was the lowest in cost of the TLIF projects and also offered the most light-touch provision. It offered a moderate range of delivery modes for primary and secondary schools (see Figure 5). Participant views of the project were consistently *good* (see Appendix E).

The picture was more mixed for EdDevTrust. Six of the TLIF outcomes were relevant for this project and two showed a positive change (personal teaching effectiveness and opportunities for career progression). However, there were mixed reports of change in relation to the effectiveness of, and motivation for, professional development, and a negative picture in relation to leadership effectiveness and school culture change. This was mirrored in participants' views of the provision. Although mid-range in cost relative to the other TLIF projects, this project provided intensive provision and a wide range of delivery modes for primary and secondary schools (see Figure 5). Overall, participant views were that the project was *good*. However, there were quite variable views on its different elements (see Appendix E).

## 4.6 Progress towards impacts

The intended impacts of the TLIF are outlined in Figures 2-4. These are:

- **Impact 1** – improved teacher/middle leader/senior leader retention and progression within the profession (specifically within schools in challenging circumstances).
- **Impact 2** – improved pupil attainment and social mobility.

- **Impact 3** – improved market sustainability of[28], and capacity/demand for, CPD.

### 4.6.1 Impact 1 – retention and progression

This section presents the results of a meta-analysis of retention and progression impacts observed across the eight TLIF projects, reported individually in each project evaluation report. Impacts were assessed at the direct-participant level[29] (retention and progression for TLIF participants, relative to non-participants) and/or at the whole-school level[30] (retention and progression at the schools in which teachers or leaders participated in TLIF, relative to non-participating schools). Impacts were evaluated at both participant and whole-school level for five of the projects. Across the other three, TDT (a whole-school development project) was evaluated only at whole-school level, and IOP and EdDevTrust (teacher-level development projects) were evaluated only at participant level.

In each project evaluation report, there are eight measures of retention and progression (four for retention and four for progression)[31]. For five of the projects (Ambition, Edison, GA, TBT and Teach First) these were observed at both participant and whole-school level meaning that there were 16 potential impact measures on which to conduct the meta-analysis. To avoid excessive report length, the meta-analysis includes only the retention and progression impact measures deemed most relevant to TLIF's aims. It, therefore, focuses on retention and progression: within the profession; within the same school; and within challenging schools. For the purposes of the SWC analysis, challenging schools were defined as those rated 'inadequate' or 'requires improvement' by Ofsted at the baseline year, and all TLIF treatment schools in the year of recruitment regardless of their rating. Further details about the rationale for inclusion of these measures are provided in Appendix G.

The meta-analysis summarises the estimated project impacts into one 'combined' programme-wide measure. Aggregating the project-level estimated impacts in this way offers insights into the overall impact of TLIF on the key intended impacts of retention and progression. Aggregating the project-level estimates also increases the sample size, thus improving the amount of statistical power with which to detect significant effects. The approach used is similar to how the Education Endowment Foundation's Teaching and Learning Toolkit summarises estimated impacts from multiple related randomised controlled trials in education [32]. Further details about the meta-analysis approach adopted are provided in Appendix G.

[28] CPD market sustainability, although an intended TLIF impact, was not measured through the evaluation.
[29] Direct-participant impacts are impacts on teachers and senior leaders who were directly involved in the TLIF projects, in receipt of the CPD.
[30] Whole-school impacts are impacts on the schools in which TLIF participants were working, rather than on the participants themselves.
[31] These are retention and progression in: the profession; the same Local Authority District; challenging schools; and own school.
[32] See: https://educationendowmentfoundation.org.uk/education-evidence/teaching-learning-toolkit.

The main findings of the meta-analysis are outlined below.

**TLIF had a positive impact on retention[33] but no observable impact on progression. It had greatest impact on direct project participants[34]. It had no observable impact on TLIF schools as a whole** (see Appendix H for full data tables).

**Retention:**

- TLIF participants were significantly more likely than teachers and leaders not participating in TLIF to: remain in the teaching profession; remain in challenging schools; and remain in the same school.
- TLIF schools were no more likely than non-TLIF schools to have staff who remained in the teaching profession, or who remained in the same school.

**Progression:**

- TLIF participants were no more likely than teachers and leaders not participating in TLIF to progress within the teaching profession, or within challenging schools.
- TLIF schools were no more likely than non-TLIF schools to have staff who progressed within the teaching profession.

These findings are explored in more detail below.

**Retention findings**

*Participant-level retention:*

Seven of the TLIF projects aimed to have an impact on participant-level retention (TDT was the only project that did not have this aim). Combined project participant-level retention findings were positive on all three of our measures (retention in the profession, retention in challenging schools, and retention in the same school).

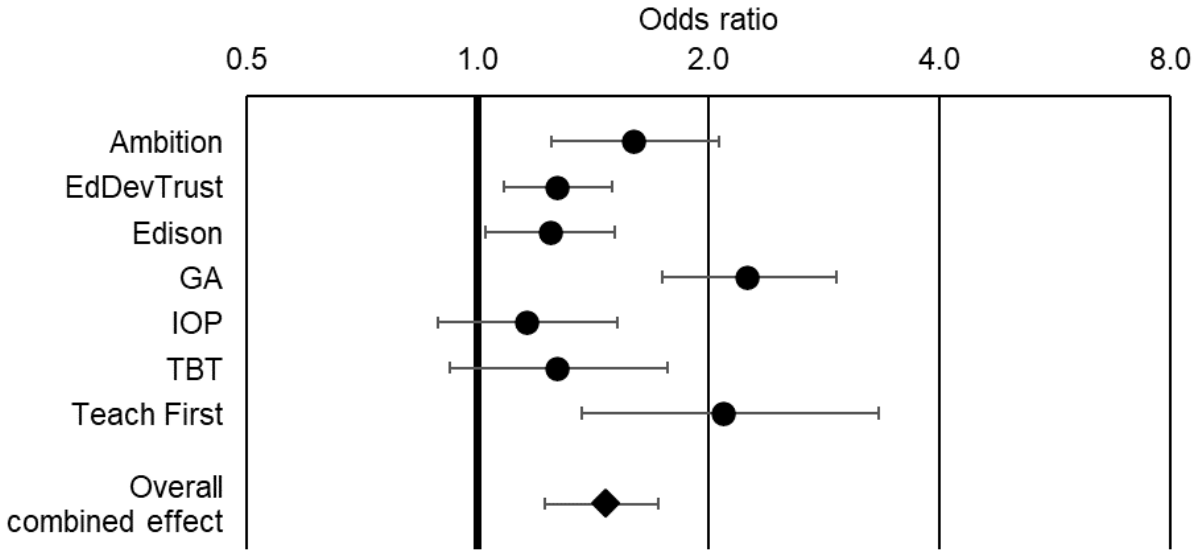
These findings are shown visually in the three charts below. The circular points show the odds ratio for each project, which is estimated by comparing the retention of the participants with the retention of a comparison group with similar characteristics. An odds ratio of one indicates that the odds of a participant being retained were equal to those of a member of the comparator group, therefore implying the project had no effect on retention. The diamond-shaped points show the estimated overall combined impact. If the points are to the right of the thick horizontal line at an odds ratio of one, there is a positive impact (i.e. participants are more likely to be retained than those in the comparison group). If they are to the left of the line, the effect on retention is negative (i.e. teachers and leaders in the

[33] It was not possible to disentangle the effect of the programme from other non-observed systematic differences between participants and non-participants, so these results may be over-estimated.
[34] The strength of these estimated effects on direct participants may be overstated, as 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, or motivation towards physics CPD).

comparison group are more likely to be retained than TLIF participants). The horizontal bars extending to the left and right of each estimate show the confidence interval (CI) of each estimate. The smaller the bars, the more precise the estimate. If the bar crosses the line, this shows that the result is not statistically significant.

Outcomes were observed at different points after baseline across the projects, depending on when participants were recruited to the project. Five of the seven projects were observed two years after baseline, and two (IOP and TBT) were observed three years after baseline[35].

**Figure 6 Retention in the profession (participant-level)**

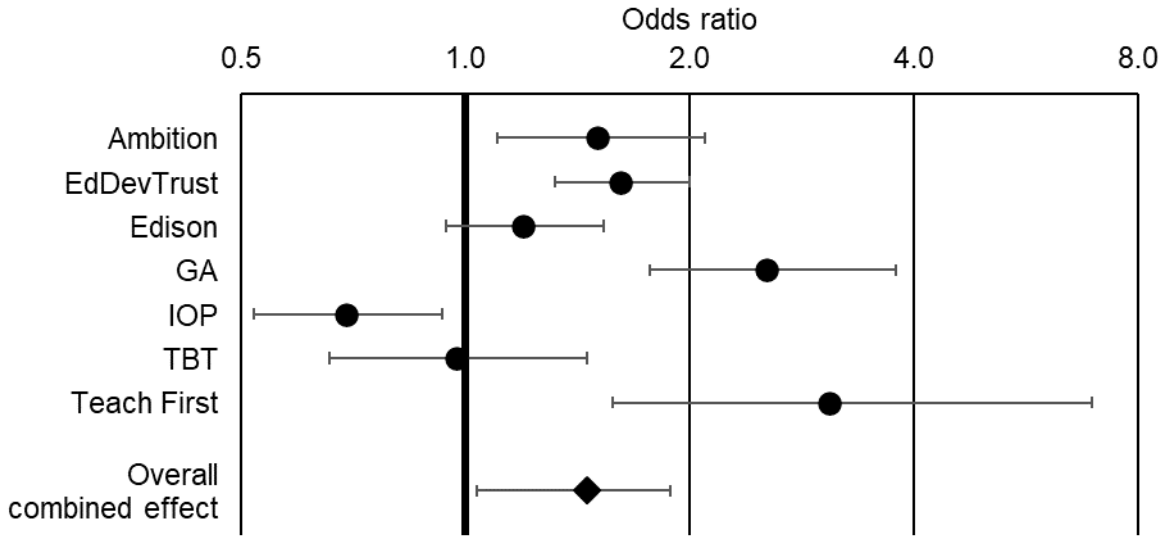



Source: NFER analysis of SWC data

Figure 6 indicates that all seven projects were successful at keeping participating teachers and leaders in the profession although, for IOP and TBT, effects were not statistically significant. Results were strongest for GA and Teach First, which both had large significant effects. The estimate for Teach First was less precise than for GA. This was most likely a result of a relatively small sample size in this project, relative to GA and many of the other projects.

[35] TDT, the only project which did not intend to have participant-level impacts, was also observed three years after baseline.

**Figure 7 Retention in challenging schools (participant-level)**



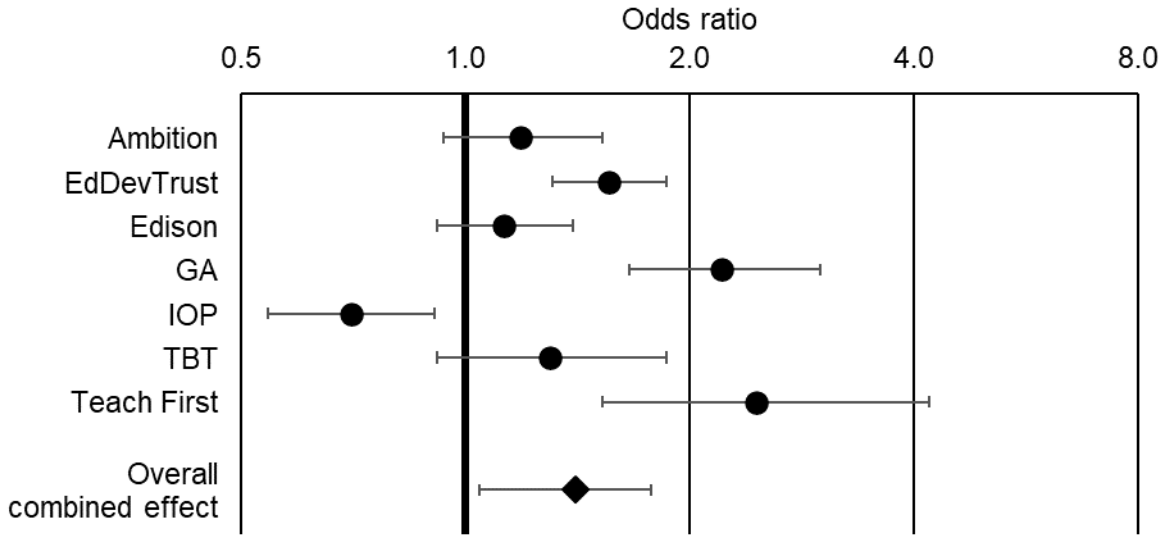

Source: NFER analysis of SWC data

Figure 7 shows that, across five of the projects, TLIF participants were more likely to remain working in challenging schools than teachers and leaders who were not participating in TLIF. For Edison, these positive effects were not statistically significant and, for TBT, there was no indication of a positive effect. TLIF was designed to develop teachers' and leaders' knowledge, skills and competencies and to retain them in the most challenging schools, so that their learning could benefit the most disadvantaged pupils. The combined overall positive effect is, therefore, encouraging.

IOP, in contrast, had a statistically significant negative effect. This means that IOP project participants were more likely than teachers not involved in TLIF to move to a non-challenging school. Although this was counter to the intention of TLIF, this may reflect positively on the quality of the CPD received by these participants, which enabled them to move to a school of their choosing; or it could reflect that fact that physics teachers, being in particularly high demand, have more influence over the type of school they choose to work in than other subject teachers.

The positive results were, again, strongest for GA and Teach First, although the estimate for Teach First is imprecise (as shown by the wide CI).

**Figure 8 Retention in the same school (participant-level)**




Source: NFER analysis of SWC data

Figure 8 shows that, overall, TLIF was effective at retaining teachers in their own schools. However, at project level, this effect was only statistically significant for Teach First, GA and EdDevTrust. Although Ambition, Edison and TBT had positive effects, these were not statistically significant.

IOP, again, had a statistically significant negative effect on retaining teachers in their own schools. There appears to have been something unique, either to the IOP project itself, or to the fact that it catered for physics teachers who were in high demand, that encouraged participants to move away from their own schools, and from challenging schools, but not to leave the profession altogether. The overall positive result in relation to retention in own school was, again, strongest for GA and Teach First.

*School-level retention*

Six of the TLIF projects aimed to have an impact on school-level retention – that is, retention across all teachers and/or leaders in the school, rather than only among direct project participants. Neither EdDevTrust, which catered for early-career teachers, nor IOP, which had a specific physics focus, had this wider aim.

Unlike the participant-level retention findings, we found no evidence of an overall significant effect across these six projects on either retention in the profession, or on retention in the same school, at whole-school level (see Tables 21 and 22 in Appendix H). At project level, none of the six projects had a significant impact on school-level retention in the *same school* (this means that there was no observable difference between TLIF and non-TLIF schools on this measure). Similarly, five of the projects had no significant effect on school-level retention in the *profession*. However, TBT had a significantly negative effect on this measure (see Table 21 in Appendix H).

**Progression findings**

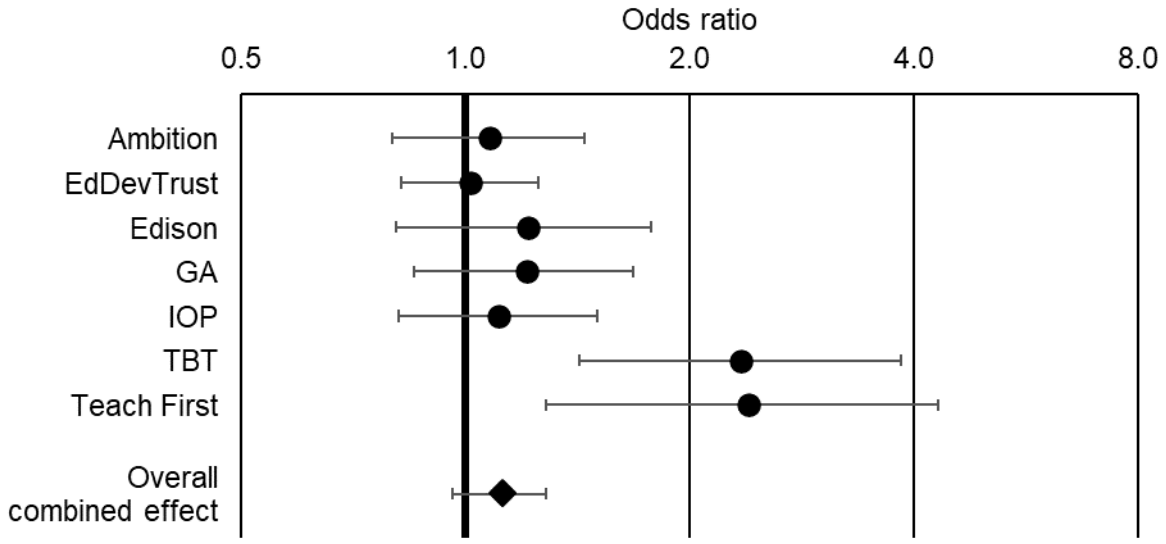
Prior to undertaking the SWC analysis on progression, we explored the related topics of job satisfaction and *intention* to remain in the profession through surveys and qualitative interviews/case studies. These results are considered below alongside the SWC progression findings.

*Participant-level progression:*

Seven of the TLIF projects aimed to have an impact on participant-level progression – that is, participant promotion from a classroom teacher to a middle leader position, or from a middle leader to a senior leader position (TDT, as whole-school development project, did not have this aim). Although we found evidence in the SWC meta-analysis of small overall positive effects on participant-level progression within the profession and within challenging schools, these results were not statistically significant (see Tables 23 and 24 in Appendix H).

There was some variation at project level. While five of the projects had no significant effect on participant progression in the *profession*, two of the projects did (Teach First and TBT). This is shown in Figure 9.

**Figure 9 Progression in the profession (participant-level)**




Source: NFER analysis of SWC data

In terms of participant progression within *challenging schools*, just one project (Teach First) had a significant effect on this measure. The other six projects had no significant effect.

*School-level progression:*

Six of the TLIF projects aimed to have an impact on school-level progression – that is, progression among all teachers and/or leaders in the school, rather than only among direct project participants (EdDevTrust and IOP did not have this aim). We only considered one measure for this outcome – progression *within the profession*. We found no evidence of any change – positive or negative – on this measure, and none of the effects (combined, or at project level) were statistically significant. (Table 25 in Appendix H shows that the odds ratios were all very close to 1.0).

Survey and qualitative data provided a similar picture.

**EdDevTrust was the only project with a positive change on the survey factor 'opportunities for career progression'.** However, the more robust SWC analysis showed no significant progression effects for EdDevTrust participants or schools. Additionally, qualitative interviews showed that ECTs themselves did not typically identify direct impacts on their personal career progression, although several of their coaches and senior leaders did.

**The remaining projects (Ambition, Edison, GA, IOP, TBT, TDT and Teach First), had mixed results across surveys and qualitative interviews/case studies.**

For IOP, there was no detectable change on the survey factor: 'opportunities for *physics* career progression'. This was in line with the SWC findings. Interviewees reported improvements in satisfaction and motivation to teach physics and several participants also perceived a positive effect on their *career development*, with the project having helped them develop new skills, improve their curriculum vitae or, in some cases, actually achieve promotions. Cases of actual promotion appear to have been small, and the SWC analysis suggests that there was no statistical relationship between the project and positive progression outcomes.

Ambition's outcomes varied by participant type. For classroom teachers there was a detectable positive change on the survey factor: 'opportunities for career progression'. However, in interviews, a subgroup of teachers (identified as 'High Leverage' (see Glossary)) did not perceive any impacts of the project on their likely career progression[36]. The survey detected no change among senior or middle leaders and the senior leaders we interviewed presented a similar impression. However, Teacher Educator interviewees were positive. Some felt that participating in the project had made them more attractive within the job market. SWC analysis suggests that this had not translated into actual progression, however.

Across GA and TBT, some participants reported increased job satisfaction or a re-discovered passion for their subject. However, few made a link between this and an

[36] Some of their senior leaders felt the project had benefited these teachers by potentially furnishing them with the skills to advance their careers.

intention to progress within the profession. Although Edison middle leaders reported feeling more empowered to progress because of the project, most other Edison participants were committed to their pupils' and schools' progress, rather than their own career progression. Interestingly, although TBT interview data found that participants were not particularly likely to anticipate career progression, the SWC analysis showed that this project had a positive effect on participants' progression within the profession.

TDT and Teach First both detected no change on the factor: 'opportunities for career progression'. However, in some Teach First schools, Achievement Partners spoke of senior leaders expanding their knowledge, skills and practice and having the potential to progress into more senior roles. Additionally, in some Teach First schools, staff turnover had stabilised although, in others, not all staff favoured the expectation that their working practices should align with a revised ethos and pedagogic approach, and some elected to move on. The overall positive views of Teach First interviewees were borne out by the SWC analysis. Teach First participants were significantly more likely than non-TLIF participants to progress, both within the profession and within challenging schools. TDT qualitative interviews demonstrated that, although the project had given some CPD leads greater visibility within their settings or academy trusts, this had not translated into improved retention or progression intentions.

**Summary**

Overall, TLIF had more success in retaining its direct project participants in the teaching profession than it had on retaining all teachers and/or leaders within TLIF schools in the teaching profession.

There is no clear evidence of an overall TLIF impact on progression, either among direct project participants, or among staff across TLIF schools. However, at individual project level, there was evidence of progression among Teach First direct participants (significant effects for progression within the profession and within challenging schools) and among TBT direct participants (significant effects for progression within the profession). This finding for TBT is interesting given that this project had no impact on participant retention in challenging schools, and had a negative impact on retention in the profession. This suggests that it supported participants to progress in their careers rather than to stay in their existing roles, and generally to move from challenging to less challenging schools.

There were no project-level significant effects on progression at whole-school level.

### 4.6.2 Impact 2 – improved pupil attainment and social mobility

Our original evaluation design included two parallel impact assessments in 2021: one focused on teacher retention and progression, drawing on SWC data (described above); the other focused on pupil attainment and social mobility, drawing on NPD data. However, due to the cancellation of Key Stage 2 assessments and GCSE examinations for the 2020 cohort due to the Covid-19 pandemic, this aspect of the evaluation was removed. The

SWC analysis of teacher retention and progression data is now the primary means of evaluating the impact of TLIF.

However, each project evaluation collected qualitative data on the extent to which pupils were perceived to be benefitting from their teachers' involvement in TLIF. While it is not possible to attribute these findings directly to TLIF, they do provide an indication of the types of benefits that the projects, and their approaches, may be able to bring to pupils.

It is noteworthy that the two outcomes on which the TLIF seemed to have the greatest effect were **personal teaching effectiveness** and **leadership effectiveness**. Both are prerequisites for the achievement of positive pupil outcome improvements, especially for disadvantaged pupils (Mincu, 2014). We cannot know that the TLIF's legacy will be an improvement in pupil outcomes, but the relative success of the projects in securing a climate of high-quality teaching and leadership in schools in challenging circumstances may facilitate achievement of this aim, provided that the enhanced practices are sustained beyond the life of the projects.

Our qualitative data on pupil impacts is categorised as follows:

1. Pupil learning behaviours
2. Pupil progress
3. Pupil attainment.

### Pupil learning behaviours

**Across all of the projects interviewees reported positive changes in pupils' learning behaviours, which they believed to be connected to the enhanced teaching practices brought about by the TLIF projects**. Pupils were reportedly more 'ready to learn' and to progress and achieve. The main changes related to pupil behaviour and engagement.

The IOP survey included some bespoke survey questions, which explored teachers' views of changes in pupils' physics learning over time. The findings are promising – we observed a significant improvement in participants' views of their pupils' enjoyment, understanding, behaviour, motivation, and progress in physics. This is an early indication that this project could achieve its longer-term aim of improving physics GCSE attainment. For all other projects, we have qualitative perceptions data of changes in pupils' engagement and behaviour, with further details provided below.

- **Engagement** – Edison, EdDevTrust, GA, TDT and Teach First interviewees identified this as a positive change. Pupils in Edison schools were perceived to be displaying more enjoyment and ownership of their learning, aided by Achievement Team meetings, which enabled teachers to identify gaps and tailor their teaching. EdDevTrust interviewees felt that effective use of scaffolding and guided tasks

contributed to an increase in pupils' independence, understanding, skills for self-improvement, and ability to connect concepts. Pupils in GA, TDT and Teach First schools were reportedly taking more ownership of their learning, and had better attitudes to learning, which contributed to increased engagement.

- **Behaviour** – Ambition, EdDevTrust, TBT, TDT and Teach First interviewees identified this as a positive change. Ambition interviewees felt this had come about due to a greater consistency in teacher expectations. TBT interviewees referenced substantial reductions in the number of detentions. Additionally, where schools were willing to share data on exclusions and attendance, the trends were also positive. TDT interviewees who had received CPD in behaviour management[37] and EdDevTrust interviewees also reported improved pupil attitudes and behaviour. A number of Teach First case-study schools had reviewed and updated their behaviour policies and strategies for supporting pupils with challenging behaviour. These new approaches were reported to be contributing to improved pupil attitudes and engagement in class.

### Pupil progress

**Interviewees across five projects (Edison, EdDevTrust, GA, IOP and Teach First) made a connection between pupil progress and their TLIF projects.**

The IOP survey provided evidence of a detectable change in participants' views of their pupils' *progress* in physics. Edison interviewees also presented very positive indications of improved pupil progress, particularly in areas that pupils tended to find less engaging, such as times tables, spellings, and handwriting. Additionally, there were specific examples of underachieving boys, 'anxious' girls, lower-achieving and 'new-to-English' pupils progressing. Most notably, average progress scores for Ofsted-improving schools in the Edison project reportedly moved from negative in reading, writing and maths pre–programme, to positive during and post-programme. Pupils in many of the Teach First case-study schools were said to have developed a better understanding of the purpose and structure of their learning than previously, growing in their ability to articulate what they were learning and why, and how this built on their previous learning. Senior leaders and Achievement Partners 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.

Both EdDevTrust and GA interviewees suggested that improvements in teaching practice *could* eventually lead to improved pupil progress, but they struggled to attribute any such changes directly to their projects. EdDevTrust primary ECTs were most likely to describe positive changes, while GA secondary interviewees speculated that increased enjoyment

[37] The TDT CPD was tailored to the needs of the school and its institutional goals. Not all schools had improving behaviour management as an institutional goal.

might lead some pupils to consider GCSE and A-level science and geography more seriously than they would have done in the past.

### Pupil attainment

**Edison and TDT participants perceived a particularly strong relationship between their projects and improved pupil attainment**. These projects notably also achieved well against the majority of TLIF's outcomes.

Edison's Achievement Advisers reported the following positive attainment outcomes.

- At Key Stage 1, in some schools, Fast Learning reportedly contributed to 'profound impacts'. One school introduced Fast Learning in preparation for the multiplication screening check. Within two weeks, the pass rate increased from 33 to 80 per cent.
- Key Stage 2 data provided by the Edison project managers (as part of their submission to DfE) indicated that most participating schools achieved an average six percentage point increase in expected standard in reading, writing and maths in their first set of results following participation in the project – double the national average in 2018. Additionally, 32 Ofsted-improving schools in the group achieved an average eight percentage point increase in Expected Standard in reading, writing and maths.

Senior leaders in TDT schools similarly felt that the CPD received by teachers had contributed to improved attainment outcomes for pupils. One senior leader said that maths attainment in Year 11[38] had 'improved exponentially in 2019' and felt the training staff had received had definitely helped. Another said that GCSE and A-Level results had improved in 2019, which was likely to be for a number of reasons, including involvement in the project. A third believed that the project had 'absolutely' had an impact on pupil outcomes. TDT had helped the school put in place teacher training to aid the progress of Year 6 pupils. By the summer, this year group was said to have progressed from below, to well above, national averages in all subjects. TDT's Expert Advisers and CPD leads also referred to changes in outcomes for pupils across their schools (including results at Year 11, progress in reading and writing, and general progress across the curriculum).

**Ambition and Teach First participants were more cautious in drawing links between their projects and improved pupil attainment. They stressed that a number of complementary initiatives were taking place across their schools, and, therefore, that causal attribution was not possible.** However, **both** projects' participants believed that teaching practice improvements were leading to, or could lead to improved pupil outcomes. Some Ambition senior leaders pointed to improvements in their pupils' outcomes that they felt had come about because of changes in teaching practices. One explained: 'The reason for that is they just get better lessons…that are more focused and sharper and tailored to make sure that none of them leave with any gaps'. Some Teach

[38] The 'tone' of interviews suggests that this was a reference to GCSE attainment, rather than a school attainment measure.

First case-study primary schools reported improvements in their pupils' internal academic outcomes data, for example, their arithmetic scores. One leader reported 'seeing [significantly] improved progress. We were seeing year-on-year improvements in outcomes'. An Achievement Partner also said of one of the secondary school case studies: '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 other TLIF projects (GA, EdDevTrust, IOP and TBT) were not yet able to identify any direct impacts on pupil attainment**.

Overall, it seems that most of the TLIF projects contributed, to a greater or lesser degree, to changes in pupils' learning behaviours. Across some of the projects, there is tentative evidence that these behavioural changes may have translated into improved progress and even improved attainment for some pupils. However, it is early to judge the impact of the TLIF overall on pupil attainment, and the DfE's TLIF ToC did not expect attainment outcomes to be realised for several years. Additionally, it is not possible to confidently attribute any changes to TLIF in the absence of a counterfactual, which would ascertain what the outcomes would have been for pupils in the absence of these interventions.

## 4.7 The influence of project design features on outcomes and impacts

In this final section, we consider the relative effectiveness of the TLIF projects in achieving outcomes and impacts in the context of each project's design features – specifically the **intensity** of the project's delivery model (duration, frequency and range of individuals involved), and the relative per-participant **cost** of the project (see Figure 5).

### 4.7.1 Intensity of delivery model

Both Coe (2020) and Cordingley *et al*., (2015) specify that teacher-focused CPD programmes of more than two terms in duration, and with high frequency participant involvement (described as fortnightly), are most likely to lead to positive teacher and pupil outcomes (see Appendix I). Cordingley *et al*., (2015) demonstrate that, in certain circumstances, where the focus of CPD is tightly defined and specific (for example, focused on one specific element of, rather than the entirety of, school improvement), then shorter CPD programmes can also be effective.

It is important to recognise that not all of the TLIF projects were focused on developing teachers. Two were specific to school leaders (TDT and Teach First), while three included school leaders, as well as teachers, in their participant groups (Ambition, Edison and TBT)[39]; so the findings of Coe (2020) and Cordingley *et al.,* (2015) do not map neatly to our own. However, an assessment of the outcomes and impacts achieved across the TLIF

[39] Although EdDevTrust intended to work with school leaders, this did not happen in practice.

projects by delivery intensity does suggest that there is broad congruence between the TLIF findings and those from the existing evidence base. **We found that projects with a moderate to long duration of two terms or more were more likely to be associated with positive outcomes than those with very short duration,** although GA (a short-duration project) did have significantly positive impacts on participant retention**.**

**To be truly effective, moderate to long duration needed to be combined with high-quality delivery and support for implementation. Alone it was insufficient to support positive outcomes.**

Projects with this positive combination of features were TDT, Teach First, Edison and IOP. All demonstrated positive outcomes, with Teach First also demonstrating positive retention and progression impacts, and all had high or moderate delivery intensity. TDT and Teach First provision each lasted for at least two years and had approximately 60 (TDT) and 12 (Teach First) days of involvement per participant[40], while Edison and IOP both lasted for one year or more, Edison with approximately 12 days of involvement, but IOP with only 3-4 days of involvement, per participant. In contrast, both Ambition and EdDevTrust, while moderate and high in intensity respectively, achieved only mixed outcomes. Explanations for some of the barriers to achievement of outcomes across these projects have been discussed in Section 3 and in Section 4.5.

**We also found that projects with light-touch intensity could be effective when their goals and scope were tightly defined.**

Both TBT and GA were light-touch in intensity (GA especially so). TBT's CPD lasted for six months and each participant had approximately four days of involvement, while GA's lasted for one term and each participant had just 2-3 days of involvement. The TBT project was focused on one aspect of school improvement – behaviour management, with less wide-ranging objectives than some of the other projects. It was successful in achieving the fund outcomes that aligned closely with these objectives, and had a positive effect on participant progression (although a negative effect on retention in challenging schools). This suggests that light-touch provision can be effective when it is well targeted. GA's success in achieving the TLIF outcomes was generally unclear or mixed, although the project did have a positive effect on participant retention. It seems that the goals of this project - developing geography and science practice across primary and secondary schools - may have been too ambitious to be realised by such a light-touch delivery model. The conclusion is that very light-touch CPD, such as that offered by GA, is likely to have the greatest chance of success if it is tightly focused on a single objective, phase, subject or development area.

[40] Teach First worked directly with a larger number of participants than TDT – most of each school's SLT, rather than selected SLT members.

### 4.7.2 Relative cost

We did not undertake a detailed value-for-money analysis as part of the TLIF evaluation (i.e. an analysis of outcomes and impacts achieved in the context of project costs). However, we collected per-participant cost information for each project and we also had some outcome and impact data, so it was possible to compare these factors qualitatively to form an assessment of the relative costs and benefit of each project. However, it is worth noting that this comparison is only indicative given the different aims of projects, the research design caveats reported earlier in Section 4.1, and the fact that pupil impacts were not tracked.

The eight projects had very different costing models, as summarised in Figure 5.

**We found no evidence of a clear relationship between the relative cost of the project and the achievement of outcomes or impacts. High project cost was not necessarily positively related to achievement of outcomes and impacts**. TDT and Teach First were examples of relatively high-cost projects that were effective in achieving the fund-level outcomes and, for Teach First, positive impacts on retention and progression also, but Ambition, while also relatively high in cost, was only partially effective in achieving fund-level outcomes and impacts – especially at whole-school level.

The lower-cost projects were sometimes quite effective. Edison appeared effective in achieving the fund-level outcomes (although it did not have particularly strong retention or progression effects), yet operated at relatively low cost. It is important to note that this project had the benefit of adapting a tried-and-tested evidence-based programme, rather than creating something entirely new. Both IOP and TBT were effective in achieving outcomes that were closely related to their bespoke project-level outcomes, operating on relatively moderate and low costs, respectively. However, both had some negative impacts on retention (although TBT had a positive impact on participant progression in the profession). While the outcome evidence relating to GA (a very low-cost project) was quite mixed, its impact on retention in the profession, both in challenging schools, and in the same school, was strong.

# 5 Sustainability


## Summary

- Across all of the projects, there was some evidence that teacher and leader participants had made what were hoped to be sustainable changes to their practices. However, at the department and school level, there were fewer examples of sustainable change, even where school-level change was an aim of the project.
- Two key project features were shown to support sustainability at both participant and whole-school level:
    - building knowledge, skills and capacity amongst a number of staff within the same school or department, or across the senior leadership team
    - demonstrating practical, easily-implementable approaches, linked to resources that could be kept, re-used and shared.
- It is also important that projects secure senior leaders' ongoing commitment and support for embedding new practices, as well as to continuously review progress to ensure activities remain appropriate and impactful.
- The scope for sustaining cross-school initiatives was variable, but more likely where projects built on existing inter-school networks and structures.
- Key barriers to newly-created clusters or hubs of schools working together were a lack of commitment and funding. This suggested the need for providers to ensure that robust systems were in place, and commitment had been secured from schools, to continue to run and resource new cross-school networks.

Longer-term sustainability could be aided by projects offering a post-project follow-up session with schools to review progress and support ongoing practice change.


This section explores to what extent new activities and learning from TLIF projects were being, or were likely to be, sustained within schools following withdrawal of direct support from the CPD providers. It also explores the factors that enabled and hindered sustainability. We examined sustainability in a number of ways, in relation to: the individual project participants involved; individual schools; and federations of schools and academy trusts.

For all of the eight projects, there was some evidence that leaders and teachers had made what were hoped to be sustainable changes to their practices.

At the school or departmental level, there were fewer examples of sustainable change, even where school-level change was an aim of the project. However, Edison, TBT and

Teach First provided strong evidence of school-level sustainability, while IOP and GA provided some evidence of sustainability at the departmental level.

**Two key project features were** shown to support sustainability at both participant and whole-school level, which have been described earlier in Sections 3 and 4:

- **building knowledge, skills and capacity among a number of staff within the same school or department, or across the senior leadership team.** This aids collaboration and sharing of learning, builds capacity to tackle future challenges, and can guard against learning being lost and the initiative being abandoned when individuals leave the school. This was a strategy effectively used by a number of projects, such as Edison, TDT, TBT and Teach First
- **demonstrating practical, easily-implementable approaches, which are linked to resources that can be kept, re-used and shared.** The GA and IOP projects, for example, provided a pack of activities and resources that teachers intended to use and develop for future curriculum delivery, and which could be shared with other staff. Teach First participants referred to a wealth of materials and resources they could use once project activity concluded.

At school-level, it is important that projects **secure senior leaders' ongoing commitment and support for embedding new practices.** This can be aided by embedding changes within existing school structures, which survive teacher and leader turnover. For example, Edison schools embedded change in their school improvement plans, appraisal processes and meeting schedules. Likewise, TBT schools reported discussing behavioural strategies and specific behavioural issues in meetings and CPD sessions. The Teach First project had an explicit 'sustain phase' focused on how project learning could be sustained and how strategic improvements could be made to impact the school beyond the duration of the project.

Sustainability is enhanced where schools continuously review progress and adapt and improve their approaches. This helps to ensure activities remain appropriate and impactful within the context of schools' changing needs and the evolving evidence base. Two projects - Edison and TBT - reported a commitment from senior leaders to continually evolve actions to improve pupil outcomes:

> I think once you've got a system and you think 'well, that's it', well you're already losing. You need to keep developing and keep changing it and keep working out what's best for the students. – *TBT, Senior Leader Participant*

In the case of Edison, this included a number of schools committing additional resource to continue working with Edison to enable them to embed and deepen their work into the future. The experienced quality of the project is of importance here: these schools were prepared to commit funds as they had very high levels of satisfaction with the provision,

and had experienced such positive outcomes during the project. A number of participants from other projects, such as GA and TBT, also reported that they would have liked further support to fully embed new practices and strengthen outcomes. This may be an option that can be built into future projects, either funded or paid for by schools. An absence of these project features and senior leadership commitment can be a barrier to sustainability, alongside high staff turnover in schools.

Turning finally to the sustainability of cross-school initiatives, the scope for sustainability seemed to be variable. The strongest example was the Edison project, within which some schools were sharing and/or intended to share learning and resources with other schools in their pre-existing federation and trust:

> I think the TLIF thing would enable us – if we were asked to – to help develop and support other schools who might be struggling a bit. – *Edison, Senior Leader Participant*

This indicates that **sustainability can be enhanced where projects build on existing inter-school networks and structures**.

However, the sustainability of newly-created clusters or hubs of schools working together, for example those set up by IOP and TDT as part of their projects, seemed to be less certain. A lack of commitment and funding to continue these new cross-school clusters or hubs were cited as the key barriers to their sustainability. This suggests **the need for providers to ensure that robust systems are in place, and commitment has been secured from schools, to continue to run and resource new cross-school networks** when project support has ended. In the case of IOP, these barriers may be mitigated by the continuing support that has been offered.

Overall, these findings provide some positive examples of the potential for the sustainability of new learning and practices, but also demonstrate the challenges, particularly at whole-school level. Once project funding has ended, it is the responsibility of schools to continue embedding and evolving new practices. This may be aided by projects offering a follow-up session with schools to review progress and support ongoing practice change after an agreed period of time.

# 6 Conclusion and recommendations

## 6.1 Conclusion

TLIF was a three-year investment designed to support high-quality professional development for teachers and school leaders in the areas and schools in England that needed it most. The overarching fund aims were to improve the provision of, and demand for, teachers' CPD and leadership development. Key intended impacts were improvements in teacher retention and progression and, ultimately, improvements in pupil attainment and social mobility. Projects commissioned were intentionally varied in terms of: participant type; whole-school, subject or area for improvement focus; and CPD duration/intensity and delivery methods.

The evaluation found strong evidence that TLIF contributed to positive changes in individuals' personal teaching and leadership practices, moderate evidence of impact on whole-school practices and culture change and some evidence that TLIF contributed to job satisfaction. There was limited evidence that TLIF led to increased motivation for CPD. SWC analysis showed that TLIF had a positive impact on retention but no observable impact on progression. It had greatest impact on direct project participants. It had no observable impact on TLIF schools as a whole. There was perceptual evidence from some of the projects of improved pupil learning behaviours and/or progress that may lead to longer-term impacts on attainment[41].

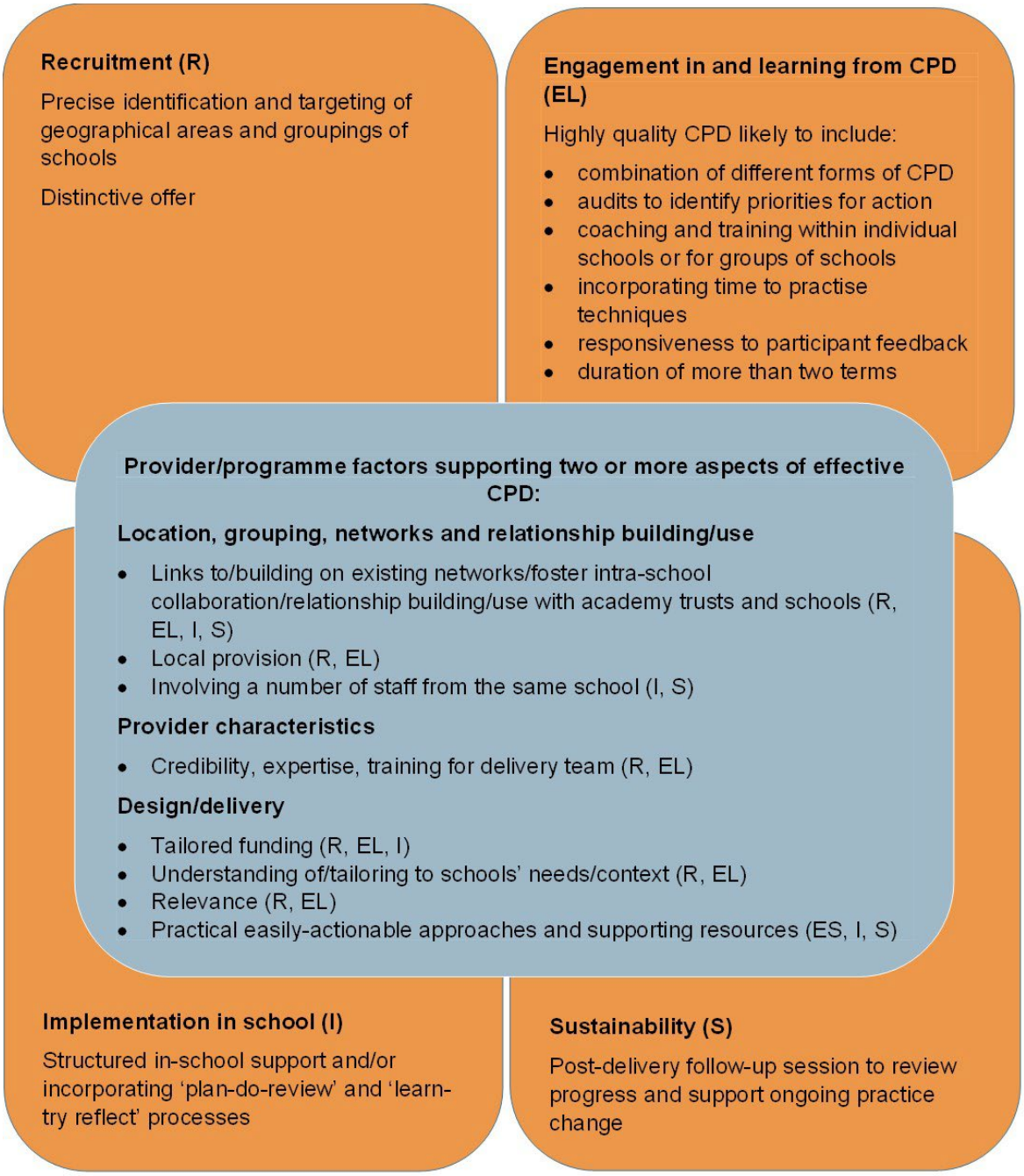
It is unsurprising that the strongest evidence of impact relates to improved personal teaching and leadership practices as one or both of these were the immediate focus of all the projects. While there was evidence that some approaches to CPD intended to impact on whole-school practices and culture change were less effective, the more moderate impact may also be due to the longer timeframe needed for such outcomes to be realised.

The TLIF evaluation findings provide learning about effective and impactful CPD, which can inform the decisions of future funders, CPD providers and school leaders sourcing CPD. However, the findings should be treated with some caution given that, with the exception of the SWC analysis, they rely on self-report and perceptual evidence, without a counterfactual. Effective and impactful CPD programmes for schools in challenging circumstances have to: successfully recruit target schools and participants and retain them for the duration of the project; design and deliver a programme of CPD that engages participants and facilitates the intended learning; ensure the CPD design and delivery supports implementation of participants' learning in school; and lay the foundations for sustainable impact. The TLIF evaluation illuminates the factors that can contribute to the success of these four aspects of effective and impactful CPD.

[41] The intended meta-analysis of pupil attainment data was not removed from the evaluation due to the cancellation of Key Stage 2 assessments and GCSE examinations for the 2020 cohort.

Figure 10 sets out the provider/programme-related factors that support effective and impactful CPD. These include a core set of factors that were found to underpin effectiveness and impact in two or more aspects of the CPD process i.e. recruitment, engagement in and learning from CPD; implementation of learning in school; and sustainability. Factors related to location, groupings and networks included: building relationships with academy trusts and individual schools, and using these to support all aspects of the CPD process; local provision that involved a number of staff from one school; and the provider's ability to both draw on, and build, networks and foster intra-school collaboration. Necessary provider characteristics included: credibility and expertise; and, where others were delivering the CPD, ensuring that they were well trained. Design and delivery factors spanned: understanding and tailoring provision to participating schools' needs and context; relevance; and providing practical easily-actionable approaches and supporting resources.

**Figure 10 Provider/programme factors supporting effective and impactful CPD in the TLIF projects**




Other provider/programme factors related to just one of the four aspects of the CPD process. Figure 10 shows that recruitment was supported where there was a distinctive offer and precise targeting of geographical areas and target schools/participants. High-quality CPD that incorporated a combination of approaches and forms of delivery successfully engaged participants and led to the intended learning. Successful components of CPD included: audits to identify priorities for action; face-to-face coaching and training in a single school or with a group of schools; incorporating time to practise new learning; a duration of two terms or more; and adapting the CPD in response to

participant feedback. Implementation of learning from the CPD in school was successful when there was structured in-school support and/or ‘plan-do-review’ or ‘learn-try-reflect’ gap tasks. Sustainability can be enhanced through post-delivery review and support.

The factors outlined above align, in many respects, with the factors identified in evidence syntheses of effective CPD (for example, Timperley *et al*., 2007 and Cordingley *et al*., 2015) and research on professional learning communities (Stoll, 2011). While the TLIF evaluation adds further supporting evidence that CPD with these features is likely to be effective, the most important learning is that **there is no ‘magic formula’ for designing and delivering effective CPD** that can be followed in every context. For example, projects that directly supported in-school implementation were able to increase the likelihood of effective implementation of learning by providing support for experimentation and subsequent feedback. In contrast some of the projects that did not offer such support were able to facilitate effective implementation through incorporating ‘plan-do review’ gap activities, and/or by supplying high-quality teaching tools and resources.

A further learning point, which also supports the notion that there is no ‘magic formula’, was that projects that did not meet all the criteria for effectiveness set out in CPD evidence syntheses could still show worthwhile effects in relation to their aims. For example, short duration and/or low intensity projects were effective when their goals/scope were tightly defined. This is an important consideration for schools investing in CPD. It is also important to note that, in this evaluation, high project cost was not necessarily positively related to effective outcomes.

The final element necessary to realise effective CPD that extends beyond provider/programme factors relates to school conditions. Effective and impactful CPD provision requires conditions in schools that are receptive to the CPD or there needs to be a focus within the CPD on improving those conditions. Engagement with, and learning from, CPD, and successful implementation of that learning can be realised when: senior staff are engaged and committed; there is a supportive and developmental culture based on empowering teachers, trust and supported risk taking; and schools are willing to build changes into existing structures. Where these conditions are absent, and/or there are workload/capacity issues, competing priorities and initiatives and high staff turnover - features commonly present in schools in challenging circumstances - recruitment, delivery and impact of CPD can be impeded. A lack of commitment or funding to sustain newly-created networks of schools also impedes longer-term sustainability.

## 6.2 Recommendations

Recommendations are provided below for three key audiences: CPD providers; schools; and government/CPD commissioners.

**For CPD providers**

- **Recruitment approaches:** should include precision in targeting, an offer of local provision that includes groups of staff from individual schools, and a relevant distinctive offer tailored to the needs of an individual, department or school, linked to personal development objectives or departmental or school improvement challenges or priorities.
- **Design and delivery:** should include a combination of delivery approaches and methods with an emphasis on face-to-face training and coaching (assuming there are no further Covid-19 restrictions). Delivery should be by credible experts, and projects should have relevant content tailored to schools' and participants' needs, practical easily-actionable approaches and supporting resources, and approaches to support implementation of learning in school and longer-term sustainability.

**For schools**

- Carefully select CPD to meet school needs and desired outcomes to ensure that CPD is cost-effective for the school and aligned to school improvement objectives.
- Ensure that the CPD aligns with the features of effective and impactful CPD outlined in Figure 10.
- Consider how learning is to be implemented in school – is this to be an integral part of the CPD, or will the school leadership team need to take further actions to support successful implementation?
- Review how well school conditions align with those that maximise the impact of CPD and consider removing barriers to effective CPD, which includes:
    - engagement and commitment of senior leaders who are willing to make changes within the school
    - fostering a supportive and developmental school culture.
- Plan for continuity and sustainability by, for example, ensuring that engagement in the CPD and the leadership of implementation of learning is not reliant on a single member of staff.

**For government/commissioners**

- Ensure that the CPD demonstrates a clear route to achieving outcomes and impacts. Provision should ideally be two terms or more in length, and with a reasonable allocation of days per participant, unless goals are very specific, in which case the

CPD can be shorter/less intense. It should also offer good value for money, with project costs that are proportionate to intended goals and the mechanisms for achieving these, bearing in mind that high-cost CPD does not, alone, lead to positive outcomes. Proposals for low-cost CPD should be reviewed to ensure that goals are proportionate to resources and, crucially, are achievable.

- Discuss with CPD providers how they will secure the commitment of schools to the CPD and to implementation of the learning. Also consider how they will support schools to embed new learning and practices, and encourage them to outline the mechanisms they will use to encourage schools to sustain learning and practices once the formal CPD has concluded.
- Consider, through DfE's wider strategy and investments, how to foster the conditions in schools that underpin successful implementation of CPD learning in order to maximise the impact of the CPD on teachers, leaders, schools and pupils, both now and into the future.

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# Appendix A: TLIF theory of change

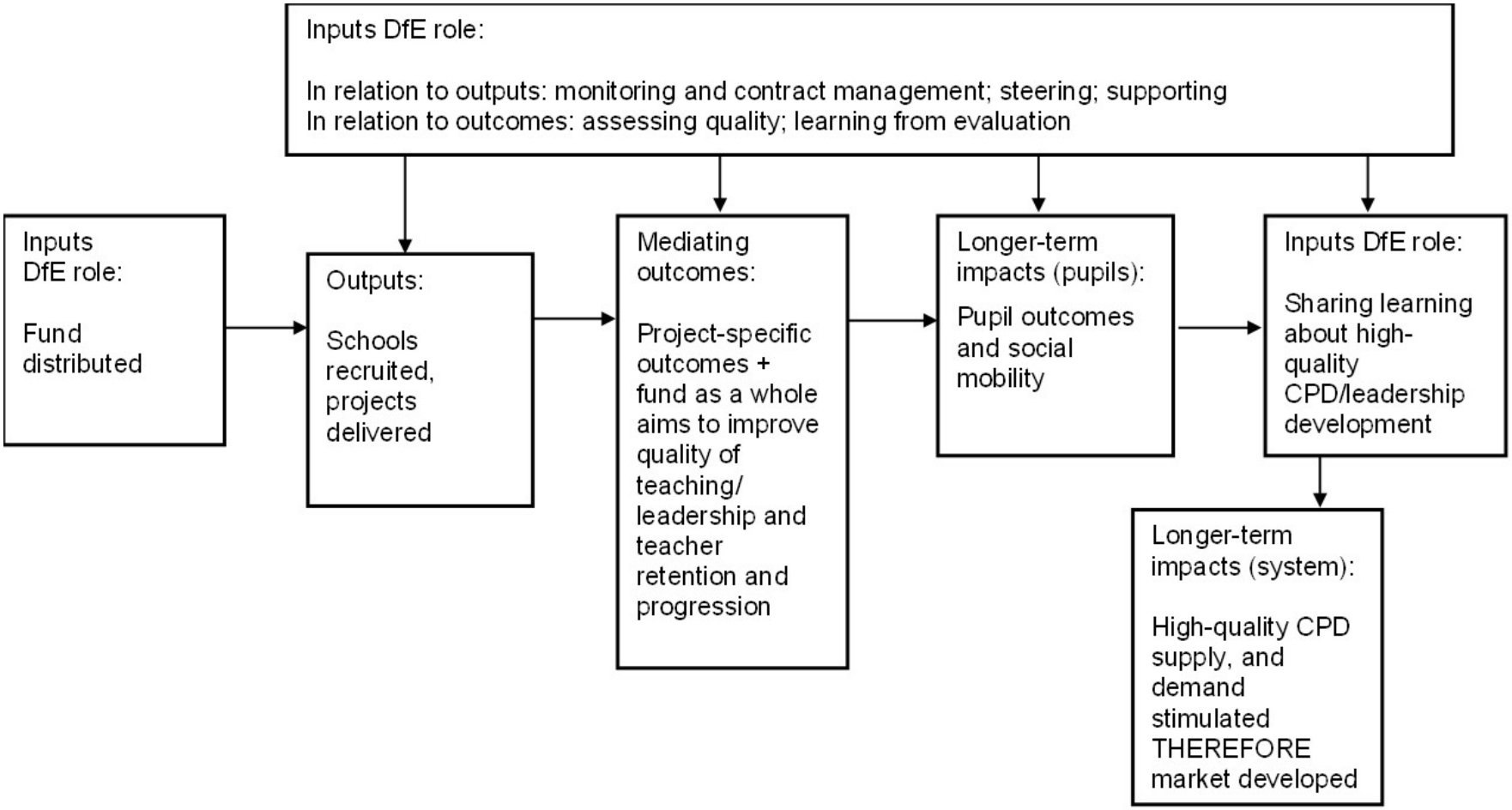
**How the TLIF programme aims to lead to system-level change**

One of the aims of TLIF is to support the development of a sustainable market. It aims to do this by building provider capacity in the system in areas where it is lacking so that projects are able to be sustainable in a market which has diminishing funding. An additional aim is to understand better what works for schools facing challenging circumstances, and to remove barriers to engagement with this high-quality CPD.

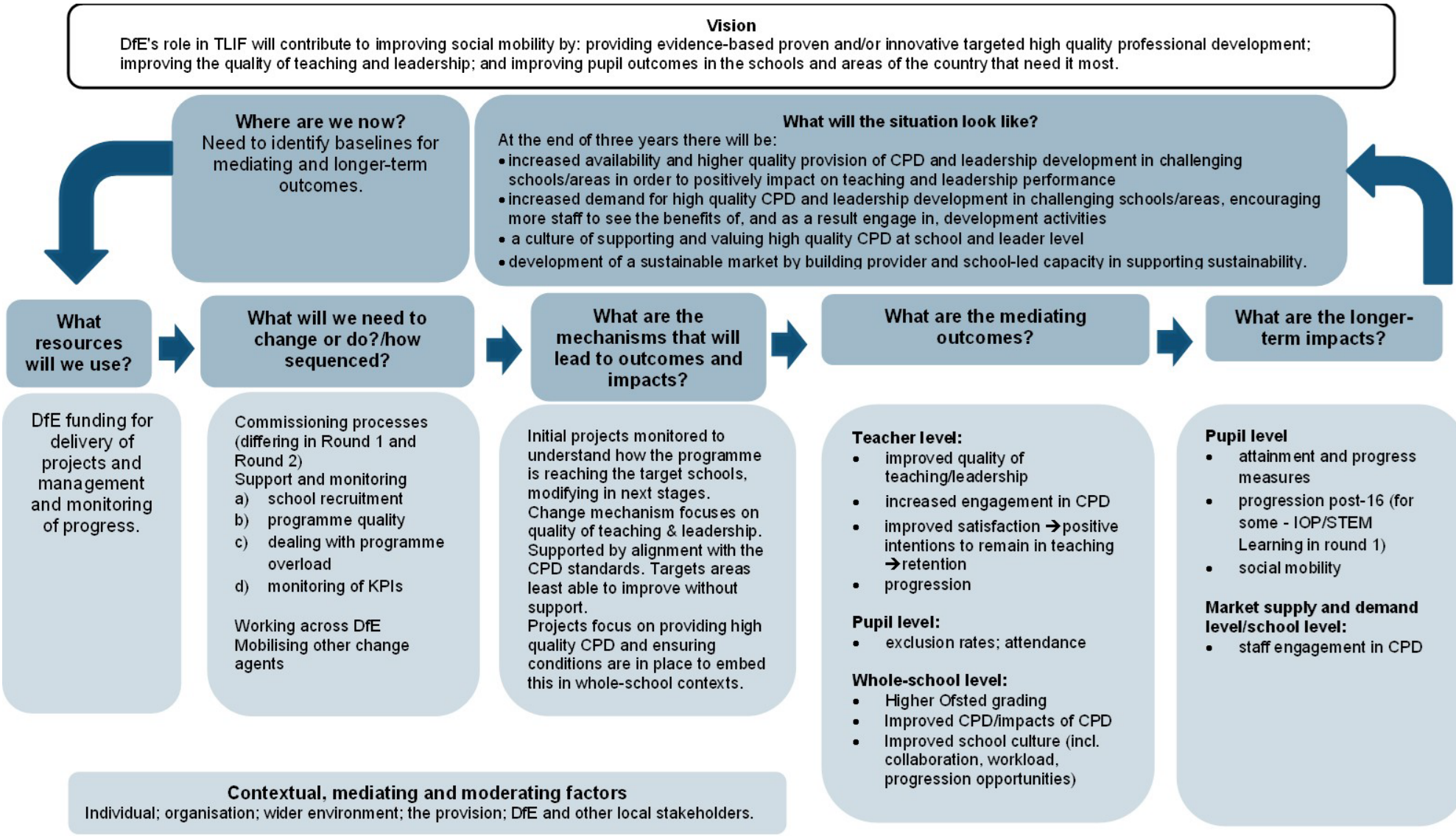
Figure 11 over the page provides an over-arching theory of change illustrating how the programme is expected to work.

Figure 12 represents a more detailed theory of change, including an overview of DfE's role in the process. Further details on the background to, and content of, Figure 12 are included in subsequent pages.

**Figure 11 Overarching TLIF programme theory of change**



## Figure 12 Detailed TLIF programme theory of change



## A. TLIF vision

TLIF will contribute to improving social mobility:

- by providing evidence-based proven and/or innovative targeted high-quality professional development
- by improving the quality of teaching and leadership
- by improving pupil outcomes in the schools and areas of the country that need it most.

At the end of three years there will be:

- increased availability and higher quality provision of teacher CPD and leadership development in challenging schools/areas in order to positively impact on teaching and leadership performance
- a culture of supporting and valuing high-quality CPD at school and leader level
- increased demand for high-quality CPD and leadership development in challenging schools/areas, encouraging more staff to see the benefits of, and as a result engage in, development activities
- indications of the development of a sustainable market as a result of building provider and school-led capacity to support sustainability.

## B. Intended longer-term impacts

**Pupil level:**

- attainment and progress measures
- progression post-16 (for some - IOP/STEM Learning in Round 1)
- social mobility.

**Market supply[42] and demand level/school level:**

- staff engagement in CPD.

## C. Mediating outcomes

**Teacher level:**

- improved quality of teaching/leadership

[42] The evaluation does not measure this longer-term impact.

- Increased engagement in CPD
- improved satisfaction ➔positive intentions to remain in teaching ➔ retention
- progression.

**Pupil level:**

- exclusion rates; attendance

**Whole school level:**

- higher Ofsted grading
- improved CPD delivery/impacts of CPD
- improved school culture (incl. collaboration, workload measures, progression opportunities).

## D. Contextual factors

What organisational, individual, policy and wider environmental factors will support or get in the way of achieving these aims? How are these related to across system levels? Which can be enhanced or mitigated by the programme during the programme lifespan, which need to be accepted and tracked?

**Individual**

- attitudes to CPD
- competing priorities/workload
- space and time
- other features e.g. skills, experience, readiness.

**Organisation**

- competing priorities
- finance issues
- backfill for staffing and other less visible costs, especially time and quality of cover
- senior leader commitment
- alignment with school values and school improvement plan
- school 'readiness' for change.

**Wider environment**

- alignment with other initiatives (experienced as complementary or competing)
- alignment with other government policies.

**Provision**

- quality
- targeting of schools/teachers/leaders - possible focus on easiest challenges, particularly school selection (defining need)
- features, form and structure of provision/alignment with effective provision (effective features of CPD are known to include appropriate content, focus on learner progression, appropriateness to participant starting points, engaging activities, collaborative learning and sufficient duration).

**DfE and other local stakeholders**

- changes in Round 1 to Round 2 and programme developments
- effectiveness of support/challenge/selection/steer etc.
- changing government priorities
- change supported by TSAs, RSCs.

## E. What is DfE's role and how are activities sequenced?

**Commissioning**

In Round 1, largely established high-quality CPD providers (with the exception of TBT and Ambition) were commissioned to provide high-quality CPD in some geographical areas, in some subjects.

For Round 1, the commissioning process required providers to submit evidence-based ToCs.

For Round 2, DfE ran a two-stage procurement process in which initial applications were shortlisted using a Standard Supplier Questionnaire (SSQ). Those that were successful at this stage were invited to complete a full Invitation to Tender (ITT).

There was no requirement to shortlist bids across all policy themes or to deliver in all geographical areas and bids were selected to progress to ITT in merit order. The ITT stated that DfE would, subject to the procurement process, fund both small and large providers, including school-based providers.

**Support and monitoring**

**a) School recruitment**

Subsequent to commissioning, the immediate challenge is for commissioned projects to recruit schools. DfE will work closely with OA teams and other local area change agents (e.g. RSCs) to identify schools and encourage them to engage. Fundamentally, if

providers do not meet their contractual recruitment targets, DfE has the discretion to clawback funding through a service credit mechanism.

**b) Programme quality**

DfE contract management will monitor this, plus draw on learning from the evaluation.

**c) Dealing with programme overload**

There is a specific concern about overload in OAs.

**d) Monitoring of KPIs**

Use of KPI reports regarding recruitment and retention.

**Working across DfE**

There is an intention to work with other programme teams to align TLIF with other linked interventions with similar aims (SSIF, OA) and with related policy changes. There is also an intention to mobilise other change agents - RSC, NLEs etc.

## F. How will outcomes be achieved? What are the mechanisms that will lead to change?

TLIF primarily targets schools in challenging areas of the country (Category 5 and 6) which Ofsted has rated as 3 (requires improvement) or 4 (inadequate). These are schools that are perceived to be the least able to improve themselves within a school-led system, and which, without intervention, may not be able to turn themselves around.

The change mechanism focuses on funding a range of external providers to deliver continuing professional development (CPD) projects that will improve teaching and leadership quality. Improvements in teaching and leadership quality will, in turn, lead to improved pupil attainment and social mobility outcomes. However, it is expected that outcomes for pupils will take longer to be realised and could take up to five years. The process is supported by the alignment of project design and delivery with the CPD standards. Where projects target their support on leaders, this includes a focus on supporting schools to develop and embed a whole-school CPD culture and CPD processes which meet the CPD standards.

Key to project delivery is gathering evidence of effective practice and challenges and how these are being overcome, and feeding back learning on an ongoing basis to support projects to continually improve and enhance delivery.

TLIF also aims to improve the supply of, and increase the demand for, high-quality CPD in the areas it targets. It is intended that funding CPD providers to deliver high-quality CPD, as well as developing the understanding and skills of leaders and coaches within schools in delivering internal CPD, will leave a legacy of the delivery of high-quality CPD within the areas TLIF targets. In addition, participants' positive experiences of CPD will result in an increased demand for CPD amongst teachers and leaders in target schools.

## G. How does TLIF compare to previous government approaches to supporting CPD?

The approach of TLIF in stimulating market activity, with a focus on using well-evidenced CPD approaches that are adapted to local need, reflects a shift in government funding mechanisms, essentially from:

- in 2000s - direct provision of highly prescribed CPD (such as National Strategies, NCSL programmes)
- post-2010 - withdrawal from a direct role as policy moved to creation of a school-led system
- post-2016 - recognition that the system cannot be fully self-improving and requires some intervention
- current - funding of provision of well-evidenced approaches that can meet local need (the Opportunity Areas (OAs), TLIF and Strategic School Improvement Fund (SSIF) programmes most recently).

# Appendix B: Analysis of Management Information for the Teaching and Leadership Innovation Fund: Fund-level analysis

### 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.

### Participants and Schools by Provider

- **Ruth Miskin Training (RMT)** recruited the most participants overall, with 3598 participants from 109 different schools
- **Education Development Trust (EDT)** recruited from the most schools with 1598 participants from 706 different schools
- **Teach First** recruited the fewest participants, with 337 participants from 53 different schools
- **Teacher Development Trust (TDT)** recruited from the fewest schools, with 1080 participants from 39 schools

Of the remaining providers:

- **Ambition Institute** recruited 1445 participants from 55 schools
- **Edison Learning** recruited 1421 participants from 98 schools
- **Geographical Association** recruited 1050 participants from 384 schools
- **Institute of Physics** recruited 826 participants from 172 schools

- **STEM Learning** recruited 3137 participants from 153 schools.
- **Tom Bennett Training** recruited 756 participants from 75 schools.

Note: There are some discrepancies between the management information presented here and the participant numbers submitted by providers.

**Schools by Phase**

Overall, TLIF providers recruited from Nursery and Primary, Secondary and Special and PRU schools. Two participants were recruited from schools with no applicable school phase information and 12 participants had no school information.

- Secondary schools are over-represented in the schools recruited by TLIF making up 38% of recruited schools compared to 16% of schools nationally.
- Primary schools accounted for the majority (60%) of participating schools in TLIF, however this was an under-representation compared to the national figure of 78%.
- Special schools were also under-represented, accounting for 2% of participating schools, compared to a national figure of 6%.

**Schools by Region**

Overall TLIF providers recruited from all 8 RSC Regions:

- The region with the highest percentage of schools is Lancashire & West Yorkshire (24%), which is higher than its share of schools nationally (16%).
- The South West has the lowest percentage of schools recruited (3%), which is lower than its share of schools nationally (11%).

Of the remaining schools:

- 23% were based in East Midlands and the Humber, which is higher than its share of schools nationally (12%)
- 15% were based in West Midlands, which is higher than its share of schools nationally (12%)
- 12% were based in East of England and North East London which is higher than its share of schools nationally (11%)
- 10% were based in South East and South London which is lower than its share of schools nationally (15%)

- 8% were based in South Central and North West London which is lower than its share of schools nationally (14%)
- 6% were based in North of England which is lower than its share of schools nationally (8%)
- 12 teachers could not be assigned a school (and therefore region) and are not included in the analysis.

**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.

- Most schools (83%) recruited to TLIF projects were in Categories 5 and 6 compared to 34% nationally.
- 12 teachers could not be assigned a school (and therefore AEA Category) and are not included in this analysis

**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.

TLIF participant schools are more likely to be from deprived areas than schools nationally:

- 48% of TLIF participant schools were in the most deprived 3 deciles (deciles 1, 2 and 3) compared to 30% nationally.
- 12 teachers could not be assigned a school (and therefore IMD Decile) and are not included in this analysis.

**Schools by Ofsted Rating**

This analysis uses the most recent Ofsted Overall Effectiveness rating for each school at the time the school joined a programme.

Nationally most schools are rated 2 (Good) while TLIF participant schools are most likely to be rated 2 (41%) or 3 (41%) (Good or Requires Improvement).

11% of schools were rated 4 (Inadequate), and the remaining 7% were rated 1 (Outstanding).

12 teachers could not be assigned a school (and therefore Ofsted Rating) and are not included in this analysis

33 TLIF participant schools have no Ofsted rating (usually because they are new/ recently converted schools).

**Participants by role**

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

- TLIF recruited participants from all teaching and leadership levels, with the majority (55%) being classroom teachers.
- Middle leaders accounted for 14% of TLIF participants (compared to 28% of school staff nationally), senior leaders 8% (compared to 10% nationally) and headteachers 3% (compared to 2% nationally).
- Teaching assistants accounted for 12% of all participants, with other non-teaching staff accounting for 5%.
- Each project targets different subsets of the school workforce, so we would not necessarily expect these figures to be nationally representative.
- 282 participants (2%) did not return any role information.

# Appendix C: Description of factor analysis undertaken on core survey questions

## A. Approach to fund-level factor analysis

Five of the TLIF project evaluations included surveys of participants at baseline and endpoint. These surveys included 'core questions' – common questions and items, which aimed to provide data to analyse the TLIF fund-level outcomes. We conducted factor analysis on these core questions across the combined TLIF survey dataset (all five projects) at baseline. This enabled us to derive outcome measures against which progress could be measured for each project.

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 assesses 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. Each project evaluation used the factors derived through this analysis to report its fund-level outcomes.

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. Details of the items loading onto each of these factors are provided in Tables 4 to 17 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 indicated 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 who answered a third or fewer of the items entered into 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 were analysed separately in each report, as applicable to the project.

## B. Factors for all respondents

**Table 4 Factor 1: Effectiveness of school leadership**

**Reliability of measure: Alpha = 0.941**

| 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 |

**Table 5 Factor 2: Effectiveness of professional development**

**Reliability of measure: Alpha = 0.917**

| 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 |

**Table 6 Factor 3: Effectiveness of school culture**

**Reliability of measure: Alpha = 0.818**

| 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 |

**Table 7 Factor 4: Motivation for professional development**

**Reliability of measure: Alpha = 0.831**

| 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 |

## C. Factors for classroom teachers (CT)

**Table 8 Factor 5: Personal knowledge for effective teaching**

**Reliability of measure: Alpha = 0.877**

| Personal knowledge for effective teaching: Item statements | Loading |
|---|---|
| I have the required subject pedagogical knowledge to effectively teach my subject(s)/key stage | 0.920 |
| I have the required generic pedagogical knowledge to effectively teach my subject(s)/key stage | 0.794 |
| I have the required subject knowledge to effectively teach my subject(s)/key stage | 0.733 |

**Table 9 Factor 6: School teaching quality**

**Reliability of measure: Alpha = 0.665**

| School teaching quality:Item statements | Loading |
|---|---|
| Teachers in this school manage behaviour effectively to ensure a safe learning environment | 0.723 |
| Teachers set high expectations for all pupils' achievement | 0.708 |
| Teaching in my subject(s)/key stage is generally very good | 0.348 |

**Table 10 Factor 7: Motivation for teaching-focused professional development**

**Reliability of measure: Alpha = 0.878**

| Motivation for teaching-focused professional development: Item statements | Loading |
|---|---|
| I use professional development both to maintain and to extend my knowledge of my subject area(s)/key stage | 0.889 |
| I use professional development both to maintain and to extend my critical understanding of a range of subject- or key stage-specific pedagogical approaches | 0.843 |

**Table 11 Factor 8: Opportunities for career progression**

**Reliability of measure: Alpha = 0.840**

| Opportunities for career progression: Item statements | Loading |
|---|---|
| I have the opportunity to progress as a classroom teacher within my school if I want to (e.g. as a specialist subject leader) | 0.897 |
| I have the opportunity to progress into a middle/senior leadership position within my school if I want to | 0.786 |

## D. Factors for middle leaders (ML)

**Table 12 Factor 9: Personal knowledge for effective teaching**

**Reliability of measure: Alpha = 0.906**

| Personal knowledge for effective teaching: 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 |

**Table 13 Factor 10: School teaching quality**

**Reliability of measure: Alpha = 0.859**

| School teaching quality: 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 generic 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 |

**Table 14 Factor 11: Motivation for teaching-focused professional development**

**Reliability of measure: Alpha = 0.9**

| Motivation for teaching-focused professional development: 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 |

**Table 15 Factor 12: Opportunities for career progression**

**Reliability of measure: Alpha = 0.765**

| Opportunities for career progression: 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 |

## E. Factors for senior leaders (SL)

**Table 16 Factor 13: School teaching quality**

**Reliability of measure: Alpha = 0.931**

| School teaching quality: 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 |

**Table 17 Factor 14: Opportunities for career progression**

**Reliability of measure: Alpha = 0.821**

| Opportunities for career progression: 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 |

# Appendix D: TLIF DfE observations: overall ratings

| Project | 2018: Satisfactory | 2018: Good | 2018: Excellent | 2019: Satisfactory | 2019: Good | 2019: Excellent | 2020: Satisfactory | 2020: Good | 2020: Excellent | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Edison | | 2 | | | 2 | | | 2 | | 6 |
| Ambition | | 2 | | | 1 | 1 | | 3 | | 7 |
| IOP | | 1 | | | 1 | | | | | 2 |
| TBT | | 2 | 1 | | | | | | | 3 |
| TDT | 2 | | 2 | | 1 | | | | | 5 |
| Teach First | | 1 | 1 | | 2 | | | | | 4 |
| EdDevTrust | | | | | | 1 | 1 | | 1 | 3 |
| GA | | | | | | | | 1 | 1 | 2 |

# Appendix E: Project engagement, satisfaction and perceptions of effectiveness

| Project | Perceptions of effectiveness: Qualitative | Perceptions of effectiveness: Quantitative (endpoint survey) | Observations[43] | Overall views of delivery |
|---|---|---|---|---|
| Ambition: Transforming Teachers (TT) | • TT fellow deliverers considered to be of high quality. Senior leaders were most positive about delivery (by TT Fellows) with mixed feedback from TEs (though some were very positive) and HLTs about project deliverers.<br>• Content of training generally considered to be well thought through and appropriate. However, some felt the strategies and techniques in the training were less appropriate for them or their subject, whilst others saw the benefit of seeing how other subjects are taught. Handouts did not always match presentations. | **Engagement**<br>• Involvement in different elements of the project differed by group (i.e. SLs, TEs and HLTs), with TEs generally being more fully involved than HLTs and SLs.<br>**Extent to which provision met needs**<br>• The majority of participants who completed the endpoint survey were moderately or very positive about their overall experience (88% rated it between 5 and 8 on a scale from 1=Very Poor to 8=Very good).<br>• Satisfaction with different elements varied by group, with TEs generally the most positive and HLTs the least positive.<br>• Around three-quarters of TEs reported that the different project elements they had engaged with fully met their needs. Around a half or less of SLs and HLTs reported this. | **2018**<br>2 Good<br><br>**2019**<br>1 Good<br>1 Excellent<br><br>**2020**<br>3 Good | Overall good, with some mixed views on particular elements. |

[43] Observation data should be treated with caution as, apart from TDT, only two or three sessions were observed per project. There was also no observation data for some of the projects in 2020. Sessions were rated as: Excellent, Good, Satisfactory, Poor or Very Poor.

| Project | Perceptions of effectiveness: Qualitative | Perceptions of effectiveness: Quantitative (end-point survey) | Observations[44] | Overall views of delivery |
|---|---|---|---|---|
| Ambition: Transforming Teachers (TT) | • The CPD was praised for being interactive and practical, enabling staff to practice techniques as they progressed through training so that they quickly be used within lessons. However, some were uncomfortable with the use of role play. Some revisiting of what participants already knew was not always beneficial.<br>• The coaching element was viewed positively.<br>• Some participants reported a lack of senior leader commitment which impacted on implementation of learning. This was sometimes related to turnover or changing priorities.<br>• Some initial issues faced regarding schools' recruitment of HLTs and communication about the programme which affected engagement. | • Satisfaction was generally higher for face-to-face training and coaching, with between around a third and four-fifths of the three groups reporting that these elements fully met their needs. In addition, around a half of SLs and TEs reported that the in-school support fully met their needs.<br>• Satisfaction was generally lower for the email/telephone support, with around two-fifths of SLs and HLTs reporting that this fully met their needs. Again, TEs were more positive, with around three-quarters reporting that this element fully met their needs.<br>• SLs were also less positive about the conferences, with just a third reporting that they had fully met their needs. | | |

[44] Observation data should be treated with caution as, apart from TDT, only two or three sessions were observed per project. There was also no observation data for some of the projects in 2020. Sessions were rated as: Excellent, Good, Satisfactory, Poor or Very Poor.

| Project | Perceptions of effectiveness: Qualitative | Perceptions of effectiveness: Quantitative (endpoint survey) | Observations[45] | Overall views of delivery |
|---|---|---|---|---|
| EdDevTrust: Accelerate | • Positive feedback was provided on residential and one-day workshops. Both were perceived to be useful in terms of information provision and networking.<br>• Coaching from an external expert was thought to be very effective. Some ECTs were not keen, or able, to record teaching which led to some drop-out. Around a third of ECTs were paired with a 'virtual' coach.<br>• Workshops and coaching were seen as the most beneficial aspects.<br>• There were mixed views on the online modules, which were linked to the residential and workshops. They were reported to be high quality and have good pacing but some felt they were too content heavy, detailed and difficult to navigate.<br>• There was little evidence that in-school mentors and senior leaders were supported by the programme. In addition, ECTs had received limited support from senior leaders and none had received support from an in-school mentor, including those in their induction year. | **Engagement**<br>• There were higher levels of engagement with taught elements and lower levels with peer-to-peer support and in-school mentoring: 75% accessed residential; 90% accessed one-day workshops; 71% accessed coaching; 89% accessed online modules; 89% accessed online resources/materials; 40% accessed peer-to-peer support; 20% allocated an in-school mentor.<br>**Extent to which provision met needs**<br>• Residentials: 64% reported that they fully met their needs; 17% that they moderately met their needs.<br>• One-day workshops: 57% reported that they fully met their needs; 27% that they moderately met their needs.<br>• Coaching: 51% reported that it fully met their needs; 24% that it moderately met their needs.<br>• Online modules: 33% reported that they fully met their needs; 36% that they moderately met their needs. | **2019**<br>1 Excellent<br><br>**2020**<br>1 Excellent<br>1 Satisfactory | Overall good. Some elements very good. However, some elements of provision were less effective and provision targeted at in-school mentors and senior leaders was sometimes not delivered and this element was key to sustainability |

[45] Observation data should be treated with caution as, apart from TDT, only two or three sessions were observed per project. There was also no observation data for some of the projects in 2020. Sessions were rated as: Excellent, Good, Satisfactory, Poor or Very Poor.

| Project | Perceptions of effectiveness: Qualitative | Perceptions of effectiveness: Quantitative (endpoint survey) | Observations[45] | Overall views of delivery |
|---|---|---|---|---|
| | | • Online resources/materials: 36% reported that they fully met their needs, 35% that they moderately met their needs.<br>• Peer-to-peer support: 25% reported that it fully met needs; 35% that it moderately met their needs.<br>• In-school mentor: 51% reported that their mentor had fully met their needs, 27% that they had moderately met their needs. | | |
| IOP: Future Physics Leaders | • Delivery generally progressed as planned with a reasonable degree of consistency in the nature and standard of delivery across regions and hubs.<br>• Participants were very positive about the project.<br>• Not all participants engaged with all elements available to them.<br>• NQT support was developing but did not cover all the required elements. For example, not all ECTs had a sympathetic timetable and mentoring from School-Based Development Coaches, particularly in the early stages.<br>• A lack of physics specialists affected what could be delivered in some areas. | **Engagement**<br>• The majority of participants had engaged either fully or moderately with the main aspects of the project.<br>**Extent to which provision met needs**<br>• The majority of participants reported that the elements of the project that they had engaged with either fully or moderately met their needs.<br>• 95% of endpoint survey respondents rated the project as either good or very good, with 70% rating it as very good. This resonated with internal satisfaction data in which 80% of participants rated the provision as good or above. | **2018**<br>1 Good<br><br>**2019**<br>1 Good | Overall good with high levels of participant satisfaction. |

| Project | Perceptions of effectiveness: Qualitative | Perceptions of effectiveness: Quantitative (endpoint survey) | Observations[46] | Overall views of delivery |
|---|---|---|---|---|
| TDT: CPD Excellence Hubs | • The audits were useful in assessing baseline strengths and weaknesses and the effectiveness of improvements introduced. It was felt that the length of the audit process could be more streamlined.<br>• Coaching conversations were reported to be high quality and useful.<br>• CPD forums received praise for being good places to network, share ideas and develop solutions to common problems. They seemed to be less useful when they were cross-phase. The specific meeting focused on middle leaders was reported to be effective.<br>• Usage of the project's online materials was mixed and, in some cases, limited. | **Engagement**<br>• All of the 16 CPD leads surveyed at endpoint had engaged with the audit; 15 had engaged with coaching conversations; 15 had engaged with the CPD forums; 13 had engaged with the TDT platform with resources; 11 had engaged with training on supporting middle leaders.<br>**Extent to which provision met needs**<br>• Audit: 14 out of 16 reported that it fully met their needs and 2 that it moderately met their needs.<br>• Coaching conversations: 12 out of 15 reported that they fully met their needs and 3 that they moderately met their needs.<br>• CPD forums: 11 out of 15 reported that they fully met their needs and 3 that they moderately met their needs.<br>• TDT resources platform: 6 out of 13 reported that it fully met their needs and 3 that it moderately met their needs.<br>• Training on supporting middle leaders: 5 out of 11 reported that it fully met their needs and 6 that it moderately met their needs. | **2018**<br>2 Satisfactory<br>2 Excellent<br><br>**2019**<br>1 Good<br><br>. | Overall good with some excellent elements and some less effective elements. |

| Project | Perceptions of effectiveness: Qualitative | Perceptions of effectiveness: Quantitative (endpoint survey) | Observations[47] | Overall views of delivery |
|---|---|---|---|---|
| Teach First: Leading Together (LT) | • APs – already experienced headteachers who delivered the CPD – provided excellent feedback on their training and support and collaboration with other APs.<br>• APs provided tailored support and coaching in line with schools' needs and priorities and at times when staff were available.<br>• Due to the pandemic, participants only took part in the first of two residentials (the 'kick-off' day) which was perceived as a strong start but not as effective as some of the other elements.<br>• The tailored support provided by Achievement Partners, and the trusting working relationships that were built, were considered very effective.<br>• The individual and group coaching proved to be the most effective element of the project, which Achievement Partners continued to deliver virtually during the pandemic. | **Engagement**<br>• Engagement was high, with most components engaged with by over 84 per cent of surveyed participants. Depth of engagement was also good, with most surveyed participants being 'moderately' or 'fully' involved. Engagement of case-study schools was also good and remained fairly stable despite the pandemic.<br>• Engagement was highest for the individual coaching and learning modules with 96 per cent of surveyed participants engaging with these.<br>• The lowest levels of engagement were seen in collaboration with other schools (in which 67 per cent of surveyed schools engaged) and accessing the learning pot (in which 74 per cent of surveyed schools engaged). | **2018**<br>1 Good<br>1 Excellent<br><br>**2019**<br>2 Good | Overall very good. |

[47] Observation data should be treated with caution as, apart from TDT, only two or three sessions were observed per project. There was also no observation data for some of the projects in 2020. Sessions were rated as: Excellent, Good, Satisfactory, Poor or Very Poor.

| Project | Perceptions of effectiveness: Qualitative | Perceptions of effectiveness: Quantitative (endpoint survey) | Observations[48] | Overall views of delivery |
|---|---|---|---|---|
| Teach First: Leading Together (LT) | • The face-to-face and online evidence-based learning modules were also an effective component of the project, with the face-to-face twilight sessions proving more popular (though these sessions were also delivered virtually during the pandemic). Some modules were reported to be less useful than others (e.g. those related to school management, governance and business models).<br>• Collaboration with other schools was felt to be the least effective element of the project, although this was partly related to lack of face-to-face contact during the pandemic.<br>• The Learning Pot was considered vital to effective participation. | **Extent to which provision met needs**<br>• 93 per cent of surveyed participants rated their experience as very good or good, despite the disruption caused by Covid-19. These findings were echoed by the case-study schools.<br>• Most of the elements were rated highly.<br>• The individual coaching was the most effective with 94 per cent of surveyed participants reporting it had 'fully' or 'moderately' met their needs and over three-quarters reporting it had 'fully' met their needs. This was followed by the learning pot and support for diagnosis and implementation of school improvement priorities.<br>• The learning modules delivered face-to-face met participants' needs better (89 per cent said they 'fully' or 'moderately' met their needs') than the online modules (77 per cent).<br>• The online models and school collaboration were the least effective although more than three-quarters of surveyed participants said that they 'fully' or 'moderately' met their needs. | | |

| Project | Perceptions of Effectiveness: Qualitative | Observations | Overall Views of Delivery |
|---|---|---|---|
| Edison: NAHT Aspire | • All leaders interviewed were overwhelmingly positive about the Network and Development Days. Some felt more time was needed between the Network Days and Development Days to allow for action to be taken. | **2018**<br>2 Good<br>**2019**<br>2 Good<br>**2020**<br>2 Good | Overall very good. |
| GA: Critical Thinking for Achievement | • The training was considered to be a good preparation for deliverers to deliver the training, although one trainer felt the theoretical content could have been augmented.<br>• On the whole, teacher participants were very satisfied with the project, including the knowledge and enthusiasm of deliverers (practising teachers), engaging training and useful sharing of ideas.<br>• The CPD was seen to be effective in terms of teachers undertaking activities 'as students' and experiencing the learning themselves, as well as requiring action between sessions. Many appreciated the 'how' to implement and the focus on pedagogy.<br>• The online portal and community aspects were engaged with the least, if at all.<br>• There was low awareness of the follow-on CPD and no interviewees had engaged in this. | **2020**<br>1 Excellent<br>1 Good | Overall good. |

[48] Observation data should be treated with caution as, apart from TDT, only two or three sessions were observed per project. There was also no observation data for some of the projects in 2020. Sessions were rated as: Excellent, Good, Satisfactory, Poor or Very Poor.

| Project | Perceptions of effectiveness: Qualitative | Observations | Overall Views of Delivery |
|---|---|---|---|
| TBT: Tom Bennett Training project | • The overwhelming majority of participants found the overall quality and effectiveness of the TBT provision to be very high. This aligned with the positive end-of-course feedback TBT received in which over 90% of participants gave a satisfaction score of 4 on a 5 point score in which 5 represented very satisfied.<br>• The initial two-day course was perceived by some to be the most effective element of the programme, setting out the core behaviour management principles and allowing for networking. Others found the Booster days in which participants could discuss what had gone well, as well as challenges and solutions, the most effective.<br>• The online portal and associated community was the least effective element. This was due to technical issues and gaining access to resources although, when accessed, resources were seen to be effective.<br>• The sharing of a set of over-arching principals and common language that could be used to affect sustainable change customised to schools' priorities was particularly praised. Modelling was also very effective. However, a minority felt the project lacked substance and specificity. | **2018**<br>1 Excellent<br>2 Good | Overall very good. |

# Appendix F: Achievement of outcomes across the TLIF projects

The following figures are based on the factors (F) derived from factor analysis, which link to the TLIF outcomes. The codes detailed below describe the change observed on each factor,

- Positive (P) – used for survey and qualitative data.
- Negative (N) – used for survey and qualitative data.
- No detectable change (NDC) – used for survey only.
- Mixed views (M) – used for qualitative data only.
- No data collected (ND) – used for survey and qualitative data.

**Figure 13 TLIF outcome 1: Improved teaching quality**

| Personal knowledge for effective teaching (F5, F9)[49]: Project | Survey data | Qualitative data |
|---|---|---|
| **Ambition** | P (CTs)<br>NDC (MLs) | M (improved confidence/quality) (CTs)<br>P (refinement of teaching practices) (MLs) |
| **EdDevTrust*** | P | P (improved confidence/quality) |
| **Edison** | ND | P (increased confidence/pedagogical competence) |
| **IOP** | NDC<br>P (personal *physics* teaching) | P (improved *physics* knowledge, confidence and pedagogy – esp. among non-specialists/NQTs) |
| **GA*** | ND | M (improved pedagogy and confidence, but not subject knowledge) |
| **TBT** | ND | M (where SLT behaviour approach was strong, individual teachers were less distracted in the classroom) |
| **TDT** | ND | ND |
| **Teach First** | P | P (improved teaching quality, more evidence-based pedagogy) |

[49] F= Factor. F5 = class teachers; F9 = middle leaders.

| School teaching quality (F6, F10, F13)[50] : Project | Survey data | Qualitative data |
|---|---|---|
| **Ambition** | P (CTs/SLs)<br>NDC (MLs) | M (some evidence of diffusion of positive practices, but dependent on the level of school support) |
| **EdDevTrust** | NDC | ND: school teaching |
| **Edison** | ND | P (some evidence of spread in practices) |
| **IOP** | NDC | P (improved *physics* knowledge, confidence and pedagogy in science departments) |
| **GA** | ND | M (highly dependent on school/participant) |
| **TBT** | ND | ND |
| **TDT** | P | P (improved knowledge, motivation and pedagogy) |
| **Teach First** | P (SLs)<br>P (MLs) | P (improved implementation, monitoring and evaluation of effective practices across schools) |

**Figure 14 TLIF outcome 2: satisfaction, retention and progression**

**Opportunities for career progression (F8, F12, F14)[51]**

| Project | Survey data | Qualitative data |
|---|---|---|
| **Ambition** | P (CTs)<br>NDC (MLs and SLs) | N (CTs)<br>P (MLs)<br>M (SLs) |
| **EdDevTrust** | P | M (coaches (depended on individual))<br>M (participants (ECTs)) |
| **Edison** | ND | M (increased satisfaction but more interest in pupil/school than own progression) |
| **IOP** | N (general career progression) | ND (general career progression)<br>P (*physics* progression of specialists, non-specialists and NQTs) |

[50] F6 = class teachers; F10 = middle leaders; F13 = senior leaders. School teaching quality describes the quality of teaching across the whole school.
[51] F8 = class teachers; F12 = middle leaders; F14 = senior leaders.

| Project | Survey data | Qualitative data |
|---|---|---|
| | NDC (*physics* career progression) | |
| **GA** | ND | M (increased satisfaction but no clear link with intentions to remain in teaching) |
| **TBT** | ND | M |
| **TDT** | NDC | M (some evidence of increased visibility, but no clear link with intentions to remain) |
| **Teach First** | NDC | M (some potential to create opportunities for progression, but limited impact on retention) |

**Figure 15 TLIF outcome 3: improved leadership quality**

**Effectiveness of school leadership (F1)[52]**

| Project | Survey data | Qualitative data |
|---|---|---|
| **Ambition** | P | M leadership effectiveness varied by individual<br>ND from interviewees other than leaders |
| **EdDevTrust** | NDC | N |
| **Edison** | ND | P (competency and confidence, distributed leadership and better school self-evaluation) |
| **IOP** | NDC (leadership effectiveness<br>NDC (*physics leadership effectiveness*) | ND (general leadership effectiveness)<br>P (*physics* leadership effectiveness) |
| **GA** | ND | ND |
| **TBT** | ND | P (improved behaviour management policies and practices) |
| **TDT** | P | P (*CPD* leadership effectiveness (but less so general leadership effectiveness)) |
| **Teach First** | P | P (clearer roles, better relationships, enhanced vision and ethos) |

[52] F1 = all respondents.

| Effectiveness of school culture (F3)[53] : Project | Survey data | Qualitative data |
|---|---|---|
| **Ambition** | NDC | ND |
| **EdDevTrust** | NDC | M |
| **Edison** | ND | P (new culture of trust and openness) |
| **IOP** | NDC | ND |
| **GA** | ND | ND |
| **TBT** | ND | P (improved whole-school approach, morale and pupil-teacher relationships) |
| **TDT** | NDC | P |
| **Teach First** | P | M (in some schools, a more open and inclusive culture) |

**Figure 16 TLIF outcome 4: increased engagement in/demand for CPD**

| Effectiveness of professional development (F2)[54]: Project | Survey data | Qualitative data |
|---|---|---|
| **Ambition** | NDC | ND |
| **EdDevTrust** | NDC | ND |
| **Edison** | ND | P (high quality; barriers to CPD removed) |
| **IOP** | NDC (general CPD effectiveness)<br>P (*physics CPD effectiveness*) | P (improved networks and collaborations) |
| **GA** | ND | ND |
| **TBT** | ND | ND |
| **TDT** | NDC | P |

[53] F3 = all respondents.
[54] F2 = all respondents.

| | | |
|---|---|---|
| **Teach First** | P | P (improved clarity and quality in schools for which this was a goal plus some others) |
| **Motivation for professional development (F4)[55]: Project** | **Survey data** | **Qualitative data** |
| **Ambition** | NDC | ND |
| **EdDevTrust** | NDC | M |
| **Edison** | ND | P |
| **IOP** | NDC (general and *physics focused*) | ND |
| **GA** | ND | M (although some felt CPD was high quality, this did not motivate undertaking of more CPD) |
| **TBT** | ND | M |
| **TDT** | NDC[56] | P |
| **Teach First** | NDC | M (some increase in demand and uptake) |
| **Motivation for teaching-focused professional development (F7, F11)[57]: Project** | **Survey data** | **Qualitative data** |
| **Ambition** | P (CTs)<br>NDC (MLs) | M (small positive effect for MLs only) |
| **EdDevTrust** | NDC | M |
| **Edison** | ND | ND |
| **IOP** | NDC | ND |
| **GA** | ND | ND |
| **TBT** | ND | ND |

[55] F4 = all respondents.
[56] TDT respondents scored the maximum mean score possible at baseline, so it was impossible to detect a statistically significant positive change over time. TDT participants were already highly motivated to engage in CPD prior to engaging in the project.
[57] F7 = class teachers; F11 = middle leaders.

| | | |
|---|---|---|
| **TDT** | ND | ND |
| **Teach First** | NDC | M (some increase in demand and uptake) |

# Appendix G: Meta-analysis methodology

Given that the design of the TLIF fund was such that each project was different, the statistical model for the meta-analysis accounted for the fact that the estimated impact of each of the eight projects may have differed from one another in magnitude, sign or statistical significance, simply due to differences in project design. The most appropriate statistical model to take these differences into account was a random effects meta-analysis model (see Borenstein *et al.*, 2009)[58] which calculated a weighted average of the estimated effect sizes of the eight individual projects.[59]

The model combined the estimated impacts and standard errors from the eight individual project evaluations and constructed single-pooled estimates representing the overall combined impact of TLIF on the relevant retention and progression measures (from one or more of the following four perspectives), along with its corresponding confidence interval:

1. **Within the profession as a whole:** This outcome measure is an indicator variable taking a value of one if a teacher remained in the profession and zero otherwise.
2. **Within the same school:** This outcome measure is an indicator variable taking a value of one if a teacher remained in the same school and a zero if a teacher changed schools[60].
3. **Within the same local authority:** This outcome measure is an indicator variable taking a value of one if a teacher remained in the same local authority and a zero if a teacher changed local authorities.
4. **Within challenging schools[61]:** This outcome measure is an indicator variable taking a value of one if a teacher remained in a challenging school and a zero if a teacher moved to a school deemed not challenging.

The same caveats and limitations relevant to the individual impact estimates, such as non-observed systematic differences between participants and non-participants also applied to estimates from the meta-analysis. See the individual project evaluation reports for a detailed discussion of the caveats and limitations of the SWC analysis.

[58] Other alternatives such as taking a simple average over the eight estimated project impacts, or using a fixed effect meta-analysis model are inappropriate in this case as they each impose a key assumption that the 'true' impact of each of the eight projects is identical. Differences in the design of the TLIF projects, however, mean that this assumption is violated.
[59] The weight applied to each projects estimated effect size is the inverse of the sum of the within-study and between-study variance. Within-study variance refers to the uncertainty on an individual project's estimated effect size while between-study variance refers to how dissimilar the estimated effect sizes between the studies are.
[60] Outcome one observes retention in the profession for the full sample of treatment and comparison teachers, while outcomes two through four are only defined for those teachers who did not leave the profession.
[61] Challenging schools were defined as schools rated as 'inadequate' or 'requires improvement' by Ofsted at the baseline year. All TLIF treatment schools were considered to be 'challenging schools' in the year of recruitment to the project, regardless of their rating. See the project reports for details.

While the individual project impacts were estimated in percentage point terms (for example, an improvement in retention or progression by 2.5 percentage points), the combined effect estimated in the meta-analysis was calculated using each project's estimated odds ratio[62], to ensure comparability across the eight projects[63].

The measures selected for meta-analysis are outlined below, with accompanying rationale.

**At the participant level:**

Retention:

1. of participants within the profession
2. of participants within challenging schools
3. of participants within the same school

Progression:

4. of participants within the profession
5. of participants within challenging schools

**At the whole-school level:**

Retention:

6. of participants in TLIF schools within the profession
7. of participants in TLIF schools within the same school

Progression:

8. of participants in TLIF schools within the profession

**Rationale for participant-level impact measures:**

Within the profession:

Retention and progression within the profession are the broadest and most direct measure of how the fund impacted overall participant retention and progression.

[62] Odds is a measure of the likelihood of an event occurring (defined as the probability of an event occurring divided by the probability of the event not occurring). An odds ratio summarises how much more or less likely an event is to occur relative to some other event, such as, in the TLIF context, how much more or less likely a teacher is to progress in their career with TLIF CPD training relative to without. An odds ratio greater than 1 suggests that the TLIF project has improved the likelihood of retention and progression for treatment teachers relative to the comparison group and vice versa.

[63] Using percentage point effect sizes in the meta-analysis is problematic in that the relative magnitude of an estimated effect size is dependent on the base rate in the comparison group (for example, an estimated effect of 10 percentage points is much larger relative to a base rate of 2 per cent, than relative to a base rate of 85 per cent). Odds ratios are scaled relative to the base rate in the comparison group, in order to facilitate direct comparison of estimated effect sizes across projects.

Therefore, retention and progression within the profession **was** included in the meta-analysis.

Within challenging schools:

The measures relating to retention and progression within challenging schools have a narrower focus on participants in schools either recruited to a TLIF project, or rated 'requires improvement' or 'inadequate' by Ofsted. However, they offer a perspective on how the TLIF projects may have upskilled participants and facilitated transitions to other, less-challenging schools. While from a system level, these teachers and leaders will have stayed in the teaching profession and/or progressed in their career, those who leverage their CPD training to leave a challenging school are unlikely to positively contribute towards the whole-school fund-level aim of improving pupil outcomes and school culture in challenging schools. These measures **were** therefore included in the meta-analysis.

Within the same school:

Retention of participants within the same school similarly measures how TLIF project participants may have used their training to move to a different school (regardless of its challenging status) from the one in which they were first recruited to the project. Similar to retention in challenging schools, these participants have stayed in the teaching profession but are unlikely to contribute to improving pupil outcomes and school culture in the school which was targeted for the TLIF project. This measure **was** therefore included in the meta-analysis.

Progression within the same school **was not**, however, included in the meta-analysis. Career advancement opportunities for teachers and leaders often necessitate moving to different schools, and therefore progression within the profession as a whole provides a better overall impression of how the TLIF projects impacted participant progression.

**Rationale for whole-school impact measures:**

Within the profession:

For the whole-school-level impact measures, retention and progression within the profession **were** included in the meta-analysis. Like with the participant-level measures, they are the broadest and most direct measure of how the fund may have impacted retention and progression rates for all teachers in TLIF-participating schools.

Progression within the profession is the only whole-school progression measure that was included in the meta-analysis, as it is the widest possible view on progression. As with the participant-level impact measures, progression within the profession describes the progression outcomes of teachers and leaders in TLIF-participating schools regardless of whether left their baseline school for advancement opportunities. It therefore captures

teachers and leaders who may not have been TLIF participants but who may have been influenced by the whole-school effects of the school's TLIF participation to seek advancement opportunities elsewhere.

Within the same school:

Retention within the same school measures the impact the fund may have had on enabling TLIF participants to leave the school in which they did their training and therefore not contribute to the whole school fund-level outcomes. It **was** therefore included in the meta-analysis. Due to its similarity to retention within the same school, retention within challenging schools **was not** included in the analysis.

# Appendix H: Meta-analysis data tables

## Retention tables

Note: In the following tables, retention estimates for projects marked * are observed two years after baseline. Estimates for projects marked † are observed three years after baseline.

**Table 18 Retention in the profession (participant-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 1.60 | 0.18 | (1.25 - 2.07) | Yes |
| EdDevTrust* | 1.27 | 0.10 | (1.08 - 1.49) | Yes |
| Edison† | 1.24 | 0.12 | (1.02 - 1.51) | Yes |
| GA* | 2.24 | 0.23 | (1.74 - 2.94) | Yes |
| IOP† | 1.16 | 0.15 | (0.89 - 1.52) | No |
| TBT† | 1.27 | 0.20 | (0.92 - 1.77) | No |
| Teach First* | 2.09 | 0.38 | (1.37 - 3.33) | Yes |
| **Overall combined effect** | **1.47** | **0.13** | **(1.22 - 1.72)** | **Yes** |

Source: NFER analysis of SWC data

**Table 19 Retention in challenging schools (participant-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 1.51 | 0.22 | (1.10 - 2.10) | Yes |
| EdDevTrust* | 1.62 | 0.15 | (1.32 – 2.00) | Yes |
| Edison† | 1.19 | 0.14 | (0.94 - 1.53) | No |
| GA* | 2.54 | 0.35 | (1.77 - 3.78) | Yes |
| IOP† | 0.69 | 0.11 | (0.52 - 0.93) | Yes |
| TBT† | 0.97 | 0.20 | (0.66 - 1.45) | No |
| Teach First* | 3.07 | 0.77 | (1.57 - 6.95) | Yes |
| **Overall combined effect** | **1.46** | **0.22** | **(1.04 - 1.88)** | **Yes** |

Source: NFER analysis of SWC data

**Table 20 Retention in the same school (participant-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 1.19 | 0.14 | (0.93 - 1.53) | No |
| EdDevTrust* | 1.56 | 0.12 | (1.31 - 1.86) | Yes |
| Edison† | 1.12 | 0.12 | (0.91 - 1.39) | No |
| GA* | 2.20 | 0.25 | (1.66 - 2.99) | Yes |
| IOP† | 0.70 | 0.10 | (0.54 - 0.91) | Yes |
| TBT† | 1.30 | 0.23 | (0.91 - 1.86) | No |
| Teach First* | 2.46 | 0.47 | (1.53 - 4.2) | Yes |
| **Overall combined effect** | **1.41** | **0.19** | **(1.04 - 1.77)** | **Yes** |

Source: NFER analysis of SWC data

**Table 21 Retention in the profession (school-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 0.98 | 0.09 | (0.82 - 1.16) | No |
| Edison† | 0.99 | 0.11 | (0.79 - 1.24) | No |
| GA* | 0.87 | 0.07 | (0.77 – 1.00) | No |
| TBT† | 0.81 | 0.08 | (0.69 - 0.95) | Yes |
| TDT† | 1.36 | 0.14 | (1.00 - 1.76) | No |
| Teach First* | 1.04 | 0.10 | (0.85 - 1.28) | No |
| **Overall combined effect** | **0.98** | **0.06** | **(0.85 - 1.10)** | **No** |

Source: NFER analysis of SWC data

**Table 22 Retention in the same school (school-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 0.93 | 0.09 | (0.78 - 1.11) | No |
| Edison† | 0.92 | 0.13 | (0.71 - 1.20) | No |
| GA* | 1.05 | 0.08 | (0.91 - 1.23) | No |
| TBT† | 1.05 | 0.10 | (0.86 - 1.27) | No |
| TDT† | 1.13 | 0.16 | (0.83 - 1.54) | No |
| Teach First* | 1.06 | 0.12 | (0.84 - 1.33) | No |
| **Overall combined effect** | **1.02** | **0.04** | **(0.94 - 1.10)** | **No** |

Source: NFER analysis of SWC data

## Progression tables

Note: In the following tables, progression estimates for projects marked * are observed two years after baseline. Estimates for projects marked † are observed three years after baseline.

**Table 23 Progression in the profession (participant-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 1.08 | 0.17 | (0.80 - 1.45) | No |
| EdDevTrust* | 1.02 | 0.11 | (0.82 - 1.25) | No |
| Edison† | 1.21 | 0.26 | (0.81 - 1.78) | No |
| GA* | 1.21 | 0.22 | (0.85 - 1.68) | No |
| IOP† | 1.11 | 0.18 | (0.81 - 1.5) | No |
| TBT† | 2.35 | 0.66 | (1.42 - 3.84) | Yes |
| Teach First* | 2.39 | 0.87 | (1.28 - 4.32) | Yes |
| **Overall combined effect** | **1.12** | **0.08** | **(0.96 - 1.28)** | **No** |

Source: NFER analysis of SWC data

**Table 24 Progression in challenging schools (participant-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 0.99 | 0.17 | (0.71 - 1.37) | No |
| EdDevTrust* | 1.04 | 0.12 | (0.83 - 1.31) | No |
| Edison† | 1.39 | 0.34 | (0.88 - 2.12) | No |
| GA* | 1.35 | 0.22 | (0.93 - 1.92) | No |
| IOP† | 0.91 | 0.17 | (0.62 - 1.32) | No |
| TBT† | 1.76 | 0.57 | (0.94 - 3.21) | No |

| | | | | |
|---|---|---|---|---|
| Teach First* | 2.88 | 1.14 | (1.49 - 5.38) | Yes |
| **Overall combined effect** | **1.11** | **0.09** | **(0.92 - 1.29)** | **No** |

Source: NFER analysis of SWC data

**Table 25 Progression in the profession (school-level)**

| Project name | Odds ratio estimate | Standard error | Confidence interval | Statistically significant difference |
|---|---|---|---|---|
| Ambition* | 0.82 | 0.12 | (0.66 - 1.03) | No |
| Edison† | 0.93 | 0.25 | (0.57 - 1.52) | No |
| GA* | 1.09 | 0.10 | (0.89 - 1.34) | No |
| TBT† | 1.01 | 0.11 | (0.81 - 1.26) | No |
| TDT† | 0.94 | 0.16 | (0.69 - 1.28) | No |
| Teach First* | 0.95 | 0.15 | (0.71 - 1.27) | No |
| **Overall combined effect** | **0.97** | **0.05** | **(0.87 - 1.08)** | **No** |

Source: NFER analysis of SWC data

# Appendix I: Practical summary of the evidence about effective CPD

Coe (2020) drew together an evidence-based list of practical implications for the design of effective CPD that support changes in teachers' classroom practice, and, in turn, leads to substantive gains in pupil learning (Figure 17). Although Coe's review (2020) focussed on subject-specific CPD, it was based on the broad congruence of evidence found in reviews of the characteristics of effective CPD, both within a subject-specific and wider context, and therefore can also be considered applicable to CPD in general.

**Figure 17 Key features of effective CPD**

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 (e.g. accountability).

Source: Coe, R. (2020).

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