



Department
for Education

Evaluation of the STEM/MFL Teacher Supply & Recruitment Programmes: Findings

Research report

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1. Introduction

There is an increasing need for qualified teachers in STEM (Science, Technology, Engineering and Mathematics) and MFL (Modern Foreign Languages) subjects. Demand for MFL teachers has been challenging and the demand for STEM skills is increasing. As a result, more high-quality teachers are needed to support the teaching of MFL and help increase pupil attainment in STEM subjects and, in particular, in maths and physics at GCSE. In 2010, the Department for Education (DfE) introduced the English Baccalaureate (EBacc) as a school performance measure. As schools increase their entries into EBacc subjects, the DfE anticipates that there will be more demand for specialist teachers in these subjects, especially for MFL teachers.

The DfE has invested in a number of targeted interventions intended to test approaches to the recruitment, retention and development of teachers in STEM and MFL subjects. The teacher supply and recruitment interventions that are included within the remit of this evaluation include six targeted interventions (or strands). Most of these have a STEM component, and three support recruitment and retention of MFL teachers. These strands are collectively intended to increase the overall number of maths, physics and MFL teachers, contribute to closing the recruitment gap and improve the quality of teaching in these subjects. Taken together, all strands seek to improve pupil achievement and progression onto associated A-Level subjects.

CFE Research and partners¹ were contracted by the DfE to evaluate six strands of the STEM and MFL Teacher Supply and Recruitment programme, which included a process and impact evaluation of strand-level activity. This report presents findings from evaluation activities undertaken during April 2017 – August 2018, and is the final evaluation report. A brief description of the strands for which findings are detailed in this report are detailed in Table 1 overleaf.

¹ The Behavioural Insights Team (BIT), academics from the University of Oxford, Durham University and a teaching profession supply expert.

Table 1: Description of Teacher Supply Programme Strands reported

Strand	Target group	Description
Paid Internships	Undergraduate students	A four-week Paid Internship after the end of the second/penultimate undergraduate year, with support for ITT application. (In cohort 1, a six-week internship with placement experience contributing to Qualified Teacher Status [QTS] was also piloted.)
Future Teaching Scholars (FTS)	A Level students who achieve a B or above in maths or physics	Financial support and additional training during undergraduate maths or physics related degree, followed by a guaranteed ² place on a bespoke employment-based ITT scheme, in return for a commitment to teach for two further years.
STEM International Recruitment	International maths and physics teachers	Recruitment agencies, partnered with school-led networks support schools to recruit, acclimatise and provide on-going Continuous Professional Development (CPD) support to international teachers from USA, Canada, Australia and New Zealand to teach maths and physics.
Spain's Visiting Teachers Programme (SVTP)	International MFL teachers	Run in partnership with Spain's Ministry of Education and Vocational Training, this programme provides schools in England with access to a pool of qualified teachers from Spain. All these teachers are able to teach Spanish as a foreign language and some can also teach French or German. Those placed in schools are provided with acclimatisation support in order to assist with the transition to teaching in England.
Undergraduate with opt-in QTS (STEM and MFL)	Undergraduate maths, physics, computing and MFL students	Opt-in QTS degrees allow students to commence an undergraduate initial teacher training pathway, partway through their degree course, commonly in year two or three depending on the length of their degree. Successful students graduate with both a degree in their subject and the recommendation for QTS.

² Subject to the candidate passing a degree to an agreed standard, demonstrating their potential ability to be a good teacher closer to graduation from university, and meeting statutory ITT requirements.

TSST (STEM)	Non-specialist teachers and former teachers who are returning to the profession.	TSST upskills non-specialists who are currently teaching mathematics or physics and those looking to return to the profession. In addition it also aims to build the capacity of non-specialist teachers who may be able to move into a mathematics or physics role. The programme is delivered via lead schools who are grant-funded to design and deliver training in collaboration with strategic partners.
TSST (MFL)	Non-specialist teachers of MFL; MFL teachers who aren't currently teaching; specialist MFL teachers who have the capacity to teach a second language.	TSST was extended to secondary MFL subjects in 2016 to build additional capacity to deliver the EBacc. As well as non-specialist teachers, TSST in MFL is also for specialist MFL teachers who are not currently teaching MFL and who need refresher training to enable a move back to an MFL role, and specialist MFL teachers who have the capacity to teach a second language in addition to their language specialism.

1.2. Aims and objectives

The overarching aims of the evaluation activity were to assess the effectiveness of the strands against their intended aims and outcomes, including evaluation of both the process and early self-reported impact of each strand. In order to achieve this, the project includes the following components:

- A process evaluation of the delivery of six³ strands of the STEM and MFL programme, to inform future delivery and to provide context for the outcomes.
- An impact evaluation (at individual strand level) to understand the potential impact of the strands.

1.3. Structure of the report

The remainder of this report presents findings from evaluation activities undertaken from April 2017 – August 2018 for each strand.

- Findings from the evaluation of the Paid Internships programme, including interviews and survey fieldwork with the programme participants, interviews and

³ The evaluation covers six strands in total but two of these strands include both STEM and MFL components which means eight strands were evaluated.

survey fieldwork with schools who had delivered the internships, and interviews with participating universities.

- Findings from the evaluation of the Future Teaching Scholars (FTS) programme, including interviews with programme participants and Regional Training Centres.
- Findings from the STEM International Recruitment Programme, including interviews with school-led networks, interviews with schools who had recruited through the programme, and interviews and survey fieldwork with teachers who had been recruited through the programme.
- Findings from Spain's Visiting Teachers programme (SVTP), including interviews with schools who had recruited through the programme.
- Findings from the Undergraduate with Opt-In QTS programme, including interviews with participating universities, interviews with undergraduates on the programme, and an interview with a school that offered placements for the programme.
- Findings from the Teacher Subject Specialism Training (TSST) programme, including interviews and surveys with TSST course participants, interviews and survey fieldwork with lead schools, and interviews and survey fieldwork with schools who employed teachers that have been on TSST courses.
- A programme level summary highlighting key themes from across the strands.
- An appendix outlining a summary of all fieldwork undertaken as part of this evaluation, including respondent numbers, dates and methods.

2. Paid Internships Findings

2.1. Introduction

This chapter presents findings from evaluation activities undertaken for the Paid Internship programme between August 2017 – March 2018. The aim of the Paid Internship programme is to allow undergraduates to experience the realities of teaching in the classroom, to help them to decide whether teaching is a suitable career for them. The programme is developed and delivered by schools; it comprises four-week school internships for maths and physics undergraduates at the end of their penultimate year at university. Undergraduate students experience and engage in activities such as teaching, practical demonstrations, classroom support and planning lessons, and are able to shadow teachers and receive support from mentors. The programme is marketed to undergraduate students by the lead schools, usually in collaboration with their local universities.

The findings include:

- Survey responses from 88 undergraduate students who undertook a Paid Internship during June and July 2017 and 10 respondents who had responsibility for hosting Paid Interns within their respective schools (referred to as placement schools throughout).
- Interviews with two senior leaders from lead schools, four staff from university partners, and five undergraduate students who undertook a Paid Internship during June and July 2017.

2.2. Key messages

Overall, the findings were positive; respondents from universities, lead schools, schools hosting interns and the interns felt that the programme was successful in providing interns with an insight into a career in teaching. In addition, stakeholders reported benefits for their own institutions, and could see the broader potential benefits for STEM teacher supply. Key findings are discussed below.

Motivations

- Pre-existing relationships were identified as a key motivation for lead schools' and universities' involvement in the programme. A number of stakeholders were also involved with other DfE teacher recruitment and supply initiatives (such as the FTS programme and TSST programme) which demonstrates a general motivation to address national teacher shortages in maths and physics, and alignment with the key purpose of the Paid Internships programme. The key motivation for interns' involvement with the programme was the opportunity to experience teaching before committing to it as a career.

Marketing of the programme

- Most of the interns first heard about the internship through their universities, and approaches such as targeted emails to students were reported to be most effective. Some of the interns felt the process could have been more competitive and selective.

Design and delivery of the programme

- Findings showed that the lead schools interviewed took responsibility for setting the overall programme framework; and partner schools were given flexibility in determining their approach to delivering internships. Both lead and partner schools felt this had worked well.
- Existing relationships between partner and lead schools were key in motivating schools to participate, and interview and survey respondents were very satisfied with their relationship with the lead school in terms of ongoing communications and support. This implies that positive relationships with lead schools had facilitated the smooth delivery of the programme.
- The length of the internship (four weeks) was generally reported to be appropriate by all stakeholders. Some partner university interviewees felt that the timing of internships posed challenges in terms of student accommodation; it may be easier to recruit students for internships if placements were not run over the university summer break.

Support offered to interns

- All interns interviewed valued the support they received from their placement school. Interns reported that they had ample opportunity to receive professional feedback and have discussions with staff, including heads of department.

Improvements to the programme

- Overall, the suggested improvements to the programme reflected the positive attitudes towards the internships from all audiences. Interviewees from universities identified a number of areas that they felt would help further the development of the programme, including increasing the number of available internships, and widening and expanding marketing and recruitment activities. Overall, interns made few recommendations for how the internship itself could be improved.

Impact of the programme

- Most intern respondents reported that they found all the activities covered in their internships useful, and this was supported by responses from hosting schools. Students' motivations for undertaking internships (i.e. to gain practical experience of teaching) was met well by the practical activities they undertook during their placements. This is reinforced by interns finding the hands-on, practical aspects of internships to be the most useful.
- The survey findings show that most Paid Intern respondents were unsure about teaching as a career prior to the internship, but subsequently most intended to pursue teacher training. Internships were, therefore, successful in their aim of providing an opportunity for individuals who were unsure about pursuing teaching as a career to try

it out and make a firm decision. This is supported by universities and schools involved in delivering the programme who reported an increased number of students seeking to pursue a career in teaching and increased numbers of applications for ITT courses.

- All four universities interviewed planned to continue to promote the programme to their undergraduates in the future. Survey findings showed that nearly all of the respondents said their schools intended to host interns during 2018/19 (with one school stating that they were yet to make a decision), implying that these positive effects would continue further down the line.

2.3. Methodology

This chapter outlines the key findings from:

- a survey completed by 88 undergraduate students⁴ who undertook a Paid Internship during June and July 2017;
- five follow-up, semi-structured interviews with undergraduates who undertook a Paid Internship;
- two interviews with senior leaders from lead schools responsible for developing and running the Paid Internships programme;
- four interviews with staff from university partners who were involved in publicising the Paid Internships programme to their undergraduates; and
- a survey completed by 10 respondents who had responsibility for hosting Paid Interns within their respective schools (referred to as placement schools throughout).

The evidence presented in this chapter highlights the strengths and weaknesses of the Paid Internships programme from the perspective of schools offering placements for the interns, university partners and participants of the programme. Note that, for the survey with schools offering Paid Internships, care should be taken when drawing conclusions due to the small sample size.⁵ Additional methodological information can be found in Appendix 1. Note that, due to rounding, some percentage totals detailed in the graphs may not add up to 100.

⁴ Of the 88 respondents who completed the survey, 44 (46%) were studying maths, 26 (30%) were studying physics and five (6%) were studying a combination of both. The subjects represented in the “other” (6%) category include computer science, accounting and finance, and psychology.

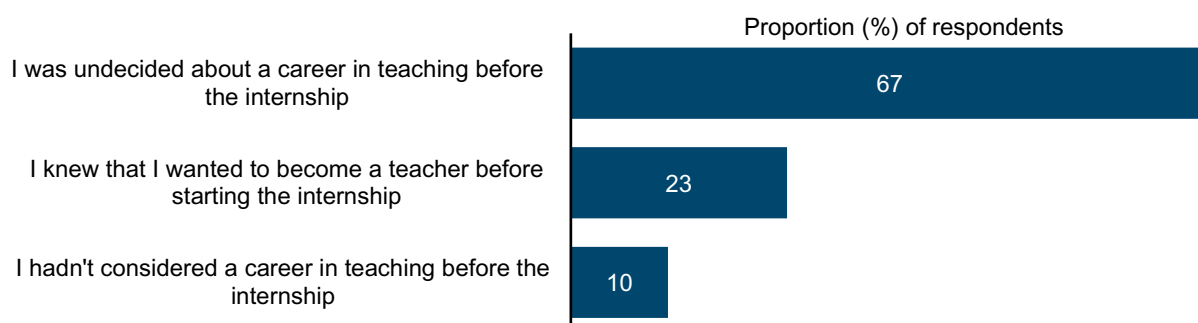
⁵ Low response rates were partly due to the small population size and, as noted in the appendix, because the sample information was collected indirectly from lead schools.

2.4. Findings from the survey and semi-structured interviews with interns on the programme

Initial views on teaching as a career

Survey respondents were asked about their views on pursuing a teaching career prior to them applying for the internship. Figure 1 shows that just over two thirds (67%, n=59) reported that they had been undecided about a career in teaching before the internship. A small proportion indicated that they had not considered a career in teaching before the internship (10%, n=9).

Figure 1: Which of the following best describes your views about teaching as a potential career before applying for your internship? (n=88)

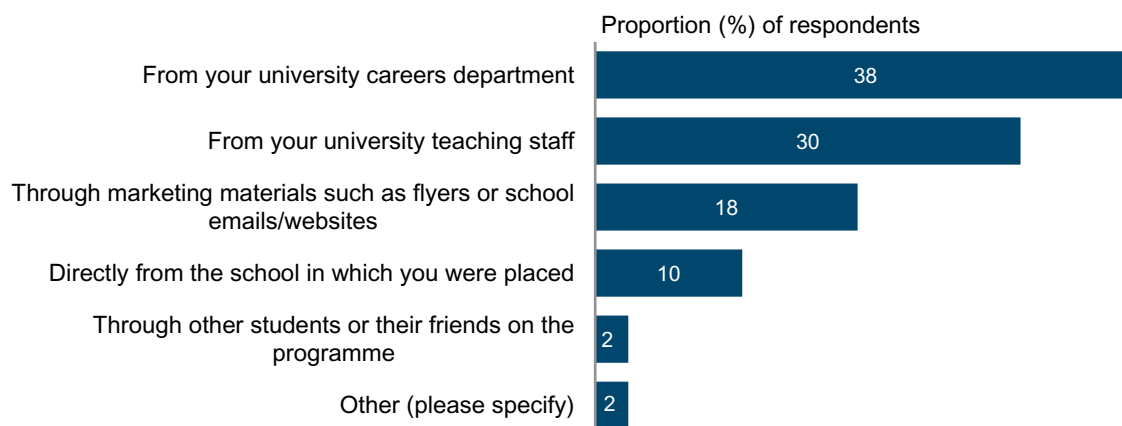


Attraction to the internship

The majority of survey respondents reported that they first heard about the internship through their university. Over two-thirds (67%, n=59)⁶ indicated that they first heard about the internship through their university careers department or from staff. Of these, university careers departments were the most common method for hearing about the internship (Figure 2). Similarly, all interview respondents found out about the Paid Internships programme via their university, either through a careers event, direct email from a lecturer, email from a careers department, via social media, or from a member of staff from the lead school who visited the university.

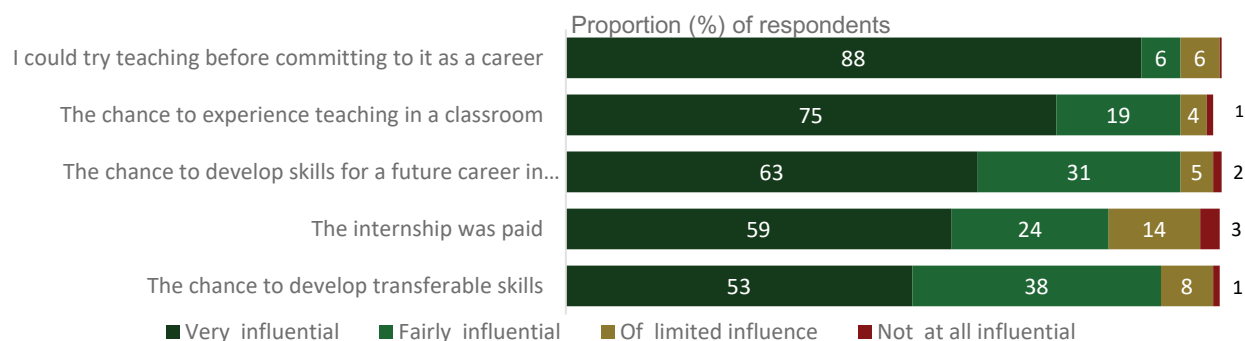
⁶ The figures for 'from your university careers department' (37.5%) and 'from your university teaching staff' (29.5%) have been rounded up. Without rounding the total is 67%.

Figure 2: How did you first hear about the teaching internship? (n=88)



As can be seen from Figure 3, the most influential factors (i.e. those chosen as ‘very influential’ by respondents) that motivated respondents to apply for an internship included: the opportunity to try teaching before committing to it as a career (88%, n=77), the opportunity to gain experience in classroom teaching (75%, n=66) and the chance to develop skills for a future career in teaching (63%, n=55). The incentive payment was ‘very influential’ for just over half the respondents (59%, n=52), suggesting that although the payment is an incentive, the experience of teaching may be a more significant motivating factor for respondents.

Figure 3: How influential, if at all, were the following in your decision to apply for an internship? (n=88)



Both survey and interview responses illustrated that, for interns, a valuable aspect of the opportunity to ‘try’ teaching before committing was the chance to gain insights and answers to their questions from existing teachers. This suggests that interns were particularly interested in hearing about the experiences of other teachers, as well as gaining direct teaching experience themselves.

“[I applied] to experience teaching and ask teachers and trainee teachers questions on [sic.] whether they liked being a teacher and the challenges they faced.”

(Maths student)

Respondents (both survey and interview) also reported that they specifically chose to undertake this teaching internship as it was considerably different to other opportunities to experience teaching, such as the Teach First programme⁷, as the Paid Internships programme allows for participants to experience teaching before committing to a longer training programme. Interviewees were generally attracted to the distinctive features that the Paid Internship offered, including that it was perceived to be more hands-on than other non-teaching internships and provided practical classroom experience.

“It was different [from other non-teaching internships] in that it wasn't corporate, it was vocational so I felt like I'd be doing and learning more than if I was in an office somewhere. And I'd always been vehemently opposed to teaching as a potential career so I wanted to see if my aversion was justified.”

(Physics student)

The majority of survey respondents indicated that they had previously not applied for, or undertaken, any other internship (77%, n=68). Only three respondents who had already applied for, or undertaken, another internship said it had been directly related to teaching. Other internships mentioned by respondents were undertaken in accountancy firms or university departments.

Experience of the internship

Survey respondents were asked to state how useful they found various activities throughout the duration of their internship. As is evident from Figure 4, most respondents reported that they found all the internship activities useful. For those who undertook the following activities, all respondents found them either very or fairly useful:

- face-to-face teaching of pupils (very useful: 81% n=71; fairly useful 19% n=17);
- mentoring from other teachers or trainers (very useful: 75% n=66; fairly useful 24% n=21);
- working with other teachers in the school (very useful: 74% n=65; fairly useful 24% n=21); and
- preparing and planning lessons (very useful: 67% n=59; fairly useful 32% n=28).

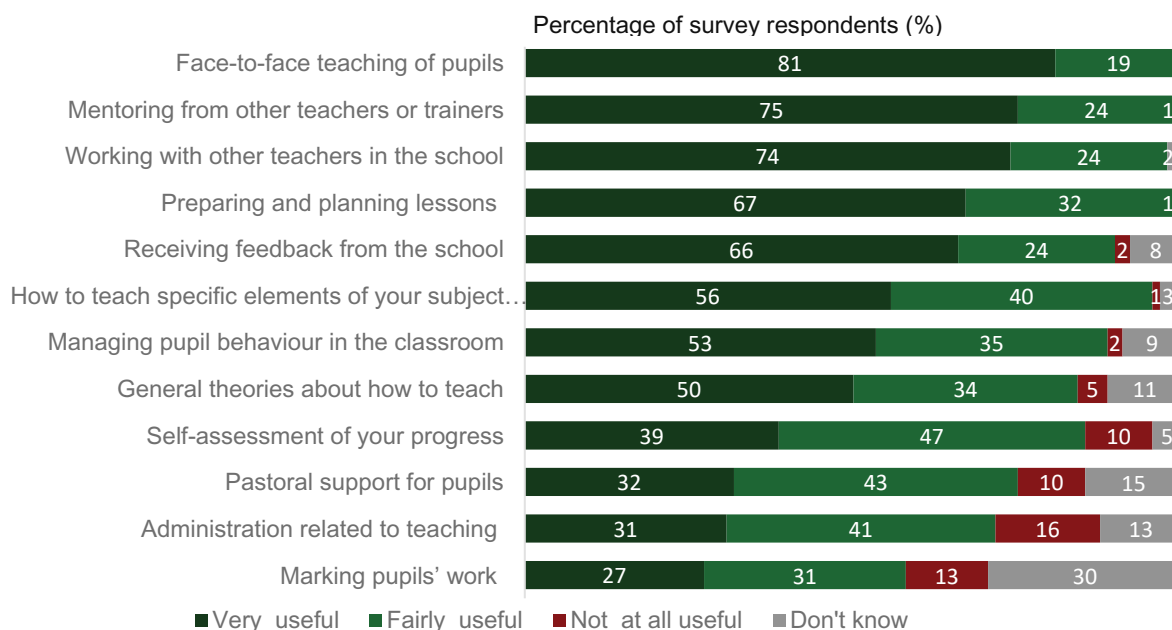
Interviews with interns indicated that the overall positive experience of the internship was due to undertaking activities that gave them the opportunity to feel like teachers. Interviewees felt welcomed, supported and integrated into their placement schools.

⁷ Teach First offers a Taster programme, designed for undergraduates in their early years of study which comprised of a two-day programme which includes interactive skills-based workshops and the opportunity to plan and teach a mini-lesson. Teach First also offers an Insight programme for science, technology, engineering and maths students to gain leadership training and classroom experience.

“I had far more than I ever could have expected from the experience. I never expected to be teaching full lessons, I didn’t expect to be incorporated into the school as a member of staff to the extent that I felt like I was.”

(Physics undergraduate)

Figure 4: How useful did you find the following activities during your internship? (n=88)



Of those surveyed interns who engaged in activities such as learning how to teach specific elements of subjects, managing pupil behaviour and learning about general theories on how to teach, small numbers (between 1%-5% for each) reported that they were not useful at all. However, all interviewees reported that it was useful to gain greater understanding of the skills that are needed to be a teacher, beyond specialist subject knowledge.

“[I had to] get in there, observe, take some notes, try and view the classroom from a teacher’s perspective, and try and gain some insight into the sorts of things that a teacher would do to prepare their lessons or how they manage behaviour in classes ... What stood out for me was the huge range of things that teachers have to cover in order to put those lessons together. It’s easy as a student to sit back and think all they have to do is stand there ... What I did find useful was the insight into the amount that really goes into teaching and how much there is to learn, far beyond your own subject knowledge.”

(Physics undergraduate)

All interviewees were able to observe, assist and deliver some teaching (at the least, a lesson starter or activity) in their specialist subject, and in different subjects. All interviewees noted that observing and assisting in a range of classes and subjects was useful as it provided an opportunity to observe different teachers, teaching styles and groups of pupils.

In addition, one interviewee was given the opportunity to deliver full lessons in biology, outside of their specialism (physics), an experience that they highly valued. It prompted them to “*go back steps and remember stuff that I didn’t necessarily remember and reteach myself*” (physics undergraduate) and as noted by the interviewee, if they were a science teacher teaching across biology, chemistry and physics, they would be required to teach two thirds of their lessons outside their specialist subject.

Survey findings also showed that the majority of respondents (92%, n=81) received feedback from the school in which they undertook the internship, which nearly all found to be useful or very useful (98%, n=79). Similarly, all five interviewees reported that they had ample opportunity to receive feedback and have discussions with staff, including teachers and heads of department, and reported that these were highly valued, informative and supportive. All interviewees received a combination of verbal and written feedback from teaching staff. They were required to critically reflect on their own teaching and experiences and this, as well as feedback received, formed the basis of informal and formal weekly discussions with staff about their progress. This feedback supported interviewees’ lesson planning and reflections on their teaching as teachers would have “*picked up on things that maybe I didn’t*” (physics undergraduate).

“At every step we were self-reflecting and getting feedback... When planning my lesson, I’d submit the draft plan to the teacher, we sat down, went through it; she said other things I could do to improve the lesson plan to make it clearer. ... After the lessons, when we taught, the teachers were more than happy to sit down with us straight after the lesson, or in lunchtime, mentoring us on what we did well, could improve on, what to think about next time ... they’d also give us some written feedback ... on the lesson plans.”

(Physics undergraduate)

When asked about the length of the internship (four weeks), over two thirds of survey respondents reported that the duration was about right (71%, n=62). Around a fifth felt the internship was too short (28%, n=25), while none of the respondents felt it was too long. Qualitative findings illustrate similar attitudes. All interviewees felt that the length of the internship was sufficient to become integrated into a placement school, and gain insight and understanding into the ‘reality’ of teaching. Two interviewees commented that they would have liked the internship to be slightly longer, six weeks instead of four, in order to be able to teach more full lessons.

“I think it was quite a good amount of time because it gave us a chance to get integrated, understand what’s going on and build up our confidence to get to the point where we can teach a whole lesson.”

(Maths undergraduate)

None of the interviewees had any recommendations for how the internship itself could be improved. However, one interviewee did comment that the application process should

remain 'selective', so that only undergraduates who are at least considering teaching as a potential career are awarded places.

"I think the scheme needs to remain quite selective. ... It's an invaluable experience for people that want to go into teaching and it's important you avoid giving places to people who don't necessarily care about it as much and are there as they don't know what to do."

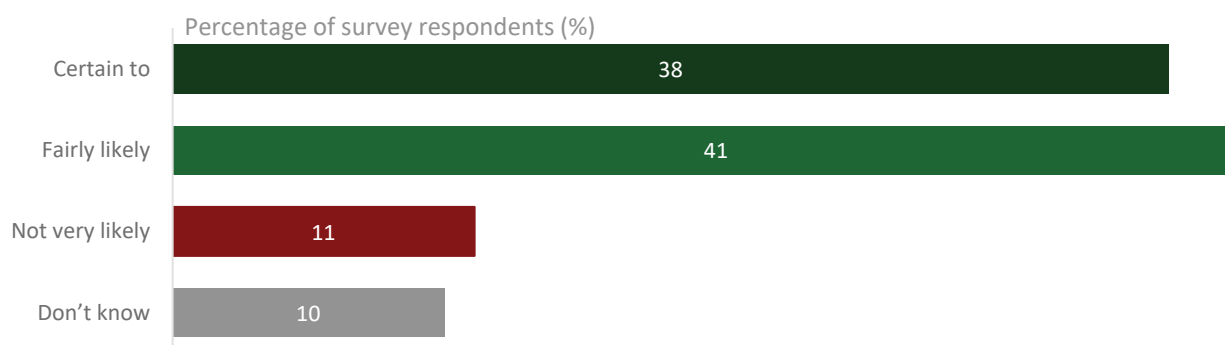
(Maths undergraduate)

Impact of the programme on interns' desires to teach

The survey findings indicate that the teaching internship had a positive impact on respondents' desire to teach. Nine-tenths of respondents (90%, n=79) felt more positive about pursuing a career in teaching after their internship. A minority of respondents were a little less positive about a career in teaching (5%, n=4), while none of the respondents felt a lot less positive. Nearly all respondents indicated that they felt more informed about a career in teaching (99%, n=87) as a result of the internship.

As seen from Figure 5, most respondents reported positive responses about their desire to pursue a career in teaching. Nearly two in five (38%, n=33) indicated that they were certain to continue to train to become a teacher, with a similar proportion of respondents (41%, n=36) stating that they were fairly likely to train as a teacher. Just over one in five (22%, n=19)⁸ said they were either not very likely or unsure if they were going to pursue teacher training.

Figure 5: How likely, if at all, are you to train further to become a teacher? (n=88)



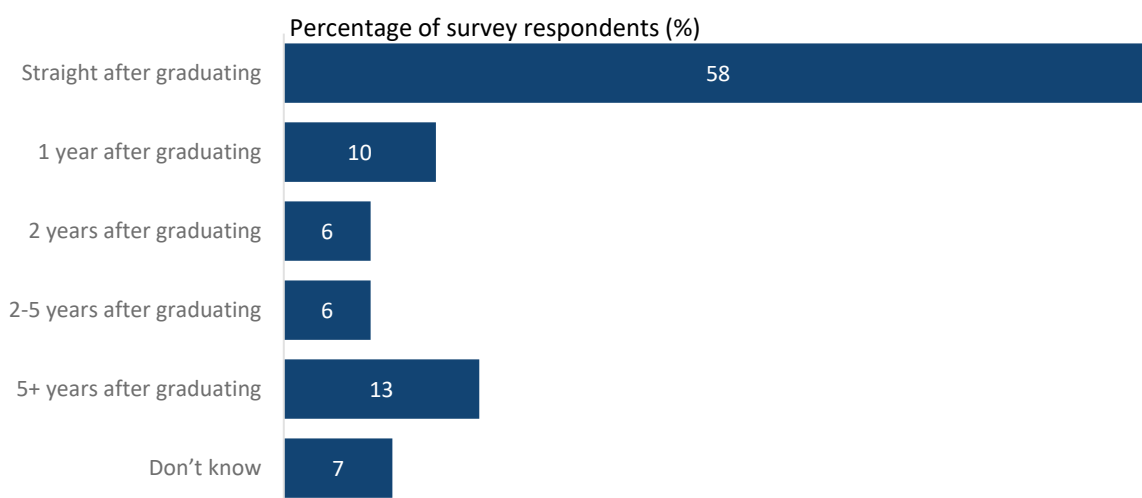
Analysis of interns' responses about their attitudes *prior* to the internship show that, of those who reported to be undecided about a career in teaching before the internship (67%, n=59), the majority (75%, n=44) were fairly likely or certain to train further to become a teacher after the internship. All bar one of the "certain to" become a teacher cohort said they knew they wanted to be a teacher before starting an internship. Most of those who said they were "fairly likely" to become a teacher were undecided before their internship. Some of the originally undecided group reported that they have decided to go into

⁸ Due to rounding, this percentage total differs from the total shown in Figure 5.

teaching as a result of their internship, although there were changes in views in both directions: 12 interns said they were now certain to become a teacher but nine said it was not very likely.

As depicted in Figure 6, of those respondents who indicated that they were fairly likely or certain to train further to become a teacher (79%, n=69), over half of respondents reported that they were likely to begin the training *straight after graduating* (58%, n=40). A fifth of respondents (22%, n=15) indicated that they were likely to begin the training *between 1 – 5 years after graduating* and a tenth of respondents stated that they were likely to do so *after 5+ years* (13%, n=9).

Figure 6: When are you likely to apply for further training to become a teacher? (n=69)



Qualitative findings also illustrate that while the overall experience of the internship was highly positive and interviewees felt more informed about a career in teaching, the impact on the desire to teach varied. For one interviewee, the experience of undertaking the internship had a significant impact on their views and directly resulted in their decision to pursue teacher training. They believed that the process was very informative and would help others to decide whether they should pursue a career in teaching.

“That internship was the entire spark that lit the fire that set me on this path. Without overhearing that conversation [about the internship], applying for the internship, conducting it, it’s unlikely that I would have gone on to teach.”

(Physics undergraduate)

This interviewee further commented on how the internship had helped to remove prejudgements about a career in teaching. For example, that teaching is primarily standing in front of a class delivering information, or that all pupils are the same, equipped with the same ability and capacity to engage in learning. As such, the internship increased this interviewee’s awareness and understanding of the wider factors teachers need to consider that impact pupils’ learning.

“There could be language barriers or there might be more social issues that affect their ability in class, problems at home, with friends. I naively went into that internship without considering any of those things, not to the extent that I now realise it’s absolutely critical in order to provide a good teaching experience for those students.”

(Physics undergraduate)

The internship similarly had an impact on the other four interviewees’ attitudes towards teaching. One interviewee commented in particular on the impact on their confidence, and how the internship had helped them to realise that they have the ability to be a teacher and that they would enjoy it.

“The main problem for me with teaching was thinking: ‘Is it something I can actually do? Is it something I have the skill set to do?’ Going into the school, I was a little bit nervous about it, but my confidence got a lot better during my time there. I realised it was definitely something that I would enjoy doing and something that I could do.”

(Maths undergraduate)

For two interviewees, the internship influenced their views on their readiness to enter the teaching profession immediately after university. One interviewee felt that as a recent graduate, they would be too young and too close in age to their pupils, which would make aspects of teaching, such as behaviour management, more challenging. In addition, this interviewee felt that they would have insufficient wider ‘life experience’ to support their teaching.

“What I realised is that I’m a little bit young. Going straight into teaching straight out of university.... There’s an issue with the kids respecting young teachers, they can sense someone’s a lot closer to their age. There was one guy in the department who just finished uni [sic.] and was in his first year of teaching. I think he definitely found it a lot harder to control his class than other teachers did. I don’t think I’d be the best teacher until I’ve gone out and got some of my own life experience anyway.”

(Maths undergraduate)

The second similarly felt that they would have insufficient ‘real-world’ experience, and in particular, industry (research and development) knowledge and experience, that they believed would be beneficial to support their teaching.

“It’s made me think that I want to go into industry first, and then go into teaching later, not necessarily go into teaching straight after university because I feel that for students who are finishing off at sixth form, it’d be more valuable for them if I had some real-world knowledge. I feel that going into industry would be more beneficial to myself because it would give me

more of a real world understanding of what my degree is capable of. When I'm advising students I can say, 'I've done this, I've done that.'"

(Physics undergraduate)

The final interviewee reported that despite enjoying the experience of the internship, they had decided to pursue a career in the financial sector. However, the interviewee had not ruled out teaching as an option for the future.

"I decided that I'm going to pursue a different career, but instead of me just dismissing it I've put it on the maybe for the future, one day, if I decide to pick a different path."

(Maths undergraduate)

2.5. Findings from semi-structured interviews with lead school senior leaders

Programme purpose and school partnership role

Both interviewees from lead schools responsible for developing and running the Paid Internships programme described the purpose of the programme as to increase recruitment of high-calibre maths and physics teachers and to promote awareness of, and insight into, careers in teaching. They also mentioned working in conjunction with other DfE teacher recruitment and supply initiatives (such as the FTS programme and TSST programme) to address the shortage of STEM teachers.

One interviewee explained that a core aspect of their role was to lead on CPD and training, in particular for teacher trainees, and Newly Qualified Teachers (NQT). The interviewee was also involved in the delivery of the FTS programme, and described the Paid Internships programme as '*another one of those [...] prongs of trying to get more maths and physics teachers in, that we definitely want to be a part of*' (Teaching School Assistant Director). As such, the Paid Internships programme aligned with this school's recruitment objectives and training activity.

In describing how the Paid Internships programme works together with other DfE teacher recruitment and supply initiatives, they also stated:

"FTS targets eighteen-year-olds, this programme [Paid Internships] was targeting penultimate [year] university [students], then through the work of our teaching school, we're targeting people applying normally to the school direct programme. We saw it as another way we could target that desperate recruitment need that we're facing. I think all of those programmes go side by side, they don't pull against each other. We're always looking to be involved with as many different ways to get people involved as possible".

(Teaching School Assistant Director)

Both interviewees described their role as leading and directing the Paid Internships programme across their respective regional teaching school alliances⁹. One interviewee, describing their role within the lead school, stated that the school was responsible for recruiting, interviewing and processing interns (e.g. DBS checks), and delivering a small number of training days (four of 24 days). While the lead school took responsibility for setting the overall programme framework, partner schools were given a certain amount of flexibility in determining their approach to delivering internships. One interviewee stated that:

“We had very different partner schools so... it would make no sense to be too prescriptive... we set a baseline expectation of what had to be covered and then we let the schools be completely flexible in how they approach that.”

(Teaching School Assistant Director)

Recruitment of interns

Interviewees from both schools stated that they and their partner schools undertook marketing and recruitment activities. Both interviewees felt their marketing and recruitment activities were effective, and both had filled all their available places. The findings show that both schools took a varied approach to advertising the programme and recruiting interns.

One interviewee stated that partner schools emailed eligible alumni, while the lead school used social media and worked with a local university to advertise the internships programme via their careers page. University lecturers also emailed prospective interns directly, signposting them to the programme. The interviewee noted that a direct email from a lecturer was found to be the most effective means of recruiting. From all recruitment streams, the interviewee reported that they had received over 100 applications for 40 places.

The second interviewee described how each of their partner schools advertised the internship programme in their local area, and that they, as a lead school and a School-Centred Initial Teacher Training (SCITT) provider, held teacher training recruitment events in their area. Although these were broader recruitment events for the SCITT and covered the various programmes offered, the Paid Internships programme was integral to their recruitment strategy. The lead school also worked with a local university to advertise the programme and delivered a presentation to students in a joint maths/physics lecture. They also liaised with the STEM careers support department at the university to advertise the internships programme further. The interviewee stated that they would like to produce a

⁹ A teaching school alliance is led by a teaching school and includes schools that are benefiting from support, as well as alliance deliverers who lead some aspects of training and development.

video for subsequent presentations at the university demonstrating what an internship looks like, along with testimonies from students who have completed an internship.

Programme content and delivery

Programme content was designed by the lead school, although partner schools have a degree of flexibility in how the programme is designed and delivered in their school. Both interviewees described designing an overarching framework for the programme that would ensure that interns gained experience of a range of activities including: practice of teaching, observing and working with pupils, training and learning about school administration, safeguarding, pedagogy, insight into a career as a teacher, and information on 'next steps' (i.e. routes into teaching, and how to apply for teacher training). In addition, both programmes required interns to prepare a presentation to deliver in the final week of the programme. One interviewee stated that the interns produced individual and group presentations to demonstrate what they had learned. The other interviewee explained that interns were given an opportunity to research and select their own presentation topic with guidance, to focus on an aspect of 'how teachers have an impact on student outcomes'. Beyond this overarching structure, partner schools were free to fit delivery around their own school operations and timetables.

Both lead schools prescribed similar activities for interns; they stated that their programme content provided an introduction to general school administration, teaching, the Paid Internships programme, school culture and safeguarding. Interns were provided with opportunities to observe lessons and, as interns moved through the internship, they became more involved in supporting and delivering lessons. One interviewee reported that they encouraged interns to get as involved as they were comfortable with, and that some interns progressed further than others.

“As the weeks build, we encourage them to have more involvement, but only if they want to and think they can. By the end of the programme, some of them will have led parts of lessons. The very brave ones have actually delivered full lessons. They're with a member of staff the whole time when they're in class. The member of staff might have acted as a TA [Teaching Assistant] for them, or just observed them and provided feedback.”

(Programme Lead)

Both interviewees reported that interns received a handbook for the programme and a school-based mentor.

“[Interns received] a handbook that was very detailed and took them through every week what the expectations would be, and they had to do a very detailed [reflective] journal, which was modelled on the Teach First journal. [This was] weekly, reflecting on different aspects, how they made an impact

in the classroom, what they'd done, what they wanted their challenges to be for next week, with feedback from the school-based mentors.”

(Teaching School Assistant Director)

Interns were supported throughout by a mentor in the partner school in which they were based. One interviewee stated that as well as day-to-day support, interns had weekly one-to-one meetings with their mentor to discuss the programme, their progress and to receive and provide feedback. Interns were also able to access support from the lead school at any time, either by email or when they were in the lead school for training. This reflects the findings from the interviews with the Paid Interns, who spoke positively about the frequency and quality of the feedback they received during the internship.

Further, both interviewees stated that interns were provided with feedback on their presentations during the final week, and guidance about the next steps. One interviewee reported that they offered interns sessions on improving numeracy and literacy skills, UCAS¹⁰ applications, writing personal statements, ongoing support with any questions, and a guaranteed interview for teacher training if they completed the Paid Internships programme.

Overall experience and future plans

Both interviewees reported a highly positive experience in delivering the programme and spoke of its perceived impact.

Both reported that they received positive feedback from interns, informally and through their own internal evaluations, which included written feedback on the programme as a whole and on the training days in which they participated. Overall, both interviewees felt that the internship programme was successful in providing interns with an insight into a career in teaching. One interviewee stated:

“They [interns] came to see, by the end of it, that teaching is much more enriching than just this stereotype that maybe they had of what it was. I think it really opened their eyes to seeing it as a skill and a whole professional world.”

(Teaching School Assistant Director)

Interviewees also spoke about the wider impact of the programme, both for the interns and for the school, and about the progression interns made in their knowledge and understanding of teaching as a career (which had been greater than they had expected).

¹⁰ The Universities and Colleges Admissions Service (UCAS) is a UK-based organisation whose main role is to operate the application process for British universities.

“It’s surprising how much they learn in such a small period [of] time. When you see the presentations they produce at the end of the four weeks, you realise they’ve learnt so much. That’s amazing.”

(Programme Lead)

One interviewee noted that the internships had been especially useful in providing interns with an understanding of the pedagogical aspects of teaching, and the need for teachers to adhere to, and maintain, a high standard of teaching.

“It can be a point of real challenge for teacher-trainees where they love their subject, but they don't see the pedagogy side of it as a skill that they need to develop and value. So where we were getting trainees who are like, 'maths is great, but why are we doing a workshop on how you build high expectations in school culture?' Actually, getting them to see that those things are as much a part of the teacher standards and that that's what teaching is and how you think about all those other things, was really powerful for us in terms of an outcome.”

(Teaching School Assistant Director)

Interviewees commented that the interns were of the calibre and quality that you would expect of those who were considering teaching as a career.

“... the quality of the individuals on the programme don't often walk through the doors of schools. The people who signed up to do the internship were exactly who you would want applying for teacher training; very bright, really interested in developing themselves, being able to make a difference, working at a high level of performance, at great universities, doing pure maths or physics qualifications and coming into the schools. The feedback we got about all of them was just fantastic, nobody had a bad thing to say about any of them.”

(Teaching School Assistant Director)

When asked about whether the schools were planning to host the Paid Internships programme for future cohorts, both interviewees stated that their schools planned to continue to run the programme and wanted to increase the number of internships they were able to offer, both given the demand and interest from students and because of the success of the first year’s programme. One interviewee stated:

“I think it's an incredibly positive programme... the entire movement that we saw in our evaluations was towards, 'Now I am thinking more positively about teacher training.’”

(Teaching School Assistant Director)

Interviewees had few suggestions for improvements to the Paid Internships programme overall. However, one mentioned that interns would have liked a little more clarity on some of the wording on the paperwork that they needed to complete, but did not specify further.

One interviewee reported that they had a great deal of difficulty with the payment for interns, and suggested DfE guidance on this would be useful. The interviewee described how the lack of guidance on this had implications for paying the interns.

“When we went to the meeting at the DfE, the DfE said it was up to individual people [schools]. We were advised that they needed to be put on the payroll and paid through that [...] we had to put 40 people on payroll for a month, then they all got taxed the wrong amount because they'd all been put on the wrong tax code [...] I know other places just gave them a cheque.”

(Teaching School Assistant Director)

2.6. Findings from semi-structured interviews with university partners

Interviewees' roles in delivering the Paid Internships

Interviewees were employed in a variety of roles within each university. One worked in the careers department and was responsible for working in collaboration with the lead school responsible for developing and running the Paid Internships programme. This interviewee played a central role in working with schools within the lead school's teaching school alliance to secure placement schools for the programme, and also in advertising and raising the profile of the Paid Internships programme with undergraduate students (and within the university more generally). Another interviewee was the Employability Manager for a school within their university. This interviewee also played a central role as the link between the university and the lead school. The remaining two interviewees were in senior management positions within their respective universities, and had minimal involvement with the Paid Internships programme; however, they had both liaised with their local lead school in formalising the partnership for the Paid Internships programme.

Programme purpose and motivations

The purpose of the Paid Internship programme was understood by all university interviewees to be to provide STEM undergraduates with a realistic experience of what a career in teaching would be like; and to encourage more undergraduates in STEM subjects to consider and pursue a career in teaching (ultimately increasing the number of teachers in these subjects). The following extract is typical of the responses given by all four interviewees.

“I think [the purpose of the programme is] to give students a realistic taster of what’s involved if they are to go into teaching as a career. It gives them that classroom experience, experience working alongside experienced teachers, working with pupils in the school. It’s to give them a realistic taster, and hopefully with a number of them, inspire them to make applications to go on and develop a teaching career.”

(Employability Manager)

In delivering against this objective, the university interviewees felt that the Paid Internship programme served an important purpose, both in terms of offering guidance and support to young adults in developing their career choices, and in terms of addressing the recruitment challenges faced by schools in filling STEM teaching positions. For those interviewed, these were also the key reasons behind the decision for their universities to become involved with the programme, to provide ‘*work experience opportunities*’ for their student body, and to encourage more STEM students to become teachers.

“I think it is very important. I think students, if they are considering teaching as a career, need a realistic overview of what’s actually involved, and also to gain the confidence [to make informed career choices].”

(Employability Manager)

“[We] found it to be a very worthwhile opportunity, in terms of our students getting some relevant experience. Also, hopefully, the overriding objective of encouraging more students to become maths and physics teachers, where there’s a shortage across the UK.”

(Acting Head of Department for Teacher Education)

All four interviewees reported that their respective universities had been involved in delivering the Paid Internships programme for at least two years. Two of the interviewees’ universities became involved with the programme through an existing relationship with their lead school. The remainder heard about the programme through a teaching school alliance. One was approached by a teaching school alliance they had previously worked in collaboration with, to provide students with work experience opportunities in schools.

In addition to the Paid Internships programme, two of the four interviewees indicated that there were ongoing internal efforts within their universities to promote opportunities for students to pursue careers in teaching (although not necessarily into STEM subjects). These included marketing different routes into teaching, or providing opportunities for students to gain practical experience in a classroom environment. In the quote below, one interviewee described the programme the university offers as part of the university’s outreach and widening participation remit for undergraduates, to experience teaching in primary and secondary schools.

“[Students] get partnered up with a particular school, and it allows the students, once they’ve been vetted, to go into that school. So they’re acting as teaching assistants initially, and if they progress and their confidence grows then they can get involved in delivery of special projects as well. It’s a way for the students to get a little bit of realistic classroom experience. That experience helps them if they go on to make an application.”

(Employability Manager)

However, there was limited awareness among those interviewed of other activities that target teacher supply and recruitment in STEM subjects. One mentioned the availability of bursaries for maths and physics students, intended to increase the number of teachers in those subjects, while another was vaguely aware of some recruitment activity co-ordinated by the physics department, but could not provide specific information.

Universities’ relationship with lead schools

All of the four interviewees made reference to multiple school partnerships, and stated that lead schools who managed the Paid Internships programme worked with a number of universities, as well as their own, to market and attract undergraduate students to the programme.

For two of the universities, interviewees reported that these were new partnerships. Interviewees’ involvement was typically facilitated via the lead school who managed the programme. In contrast, for the other two universities, paid interns were placed in schools with which the universities had pre-existing relationships.

“Our students have applied, many have been selected, then [the teaching school alliance] and [college] arranged the internships. I’m aware that we have relationships with many schools that are involved for our widening participation activity.”

(Faculty Associate Pro Vice-Chancellor for Learning and Teaching)

University involvement in initial application

All interviewees’ universities had some involvement with the regional applications that lead schools had submitted to the DfE to host the Paid Internships programme, although for most this was not extensive. Applications were managed by the lead school. All four universities provided background information, identified costs and outlined how they planned to recruit students for the programme. All four universities consulted with their careers departments to develop this supporting information. Only one university, with an existing long-standing relationship with the lead school, said that they had worked extensively with the lead school in developing the application.

“I was involved in the application but I can’t remember the detail. We looked at it and felt we could and should support it. The application was written by

[the lead school], we voiced our support. We said that we would help to facilitate our students applying for the internships if their application was successful.”

(Faculty Associate Pro Vice-Chancellor for Learning and Teaching)

Communication with the lead school

Since the lead school was typically responsible for ongoing management and delivery of the programme, university involvement was generally limited to marketing and recruitment activities, and facilitating the process of accepting students’ applications. Beyond this, regular contact between the universities and lead schools was ensured through a combination of planning milestones/formal deadlines, ongoing programme evaluation and informal updates on undergraduates who had been successful in securing an internship.

“I meet [the lead school] every week, because I’m involved with teacher training, so I have informal chats about internships on a weekly to monthly basis, depending on the time of year. This time of year, it’s planning time, in terms of getting those students recruited.”

(Senior Lecturer and Programme Leader)

Planning sessions included meetings prior to the interview process, meetings following the interviews to allocate students to schools, and debrief sessions on completion of the programme. As demonstrated in the quote below, interviewees reported positive experiences when reflecting on their working relationships with lead schools.

“I don’t think there were any major issues which came out of the process. We haven’t really made very many alterations to our plans going forward for this year, so the applications have gone in, I’ve had face-to-face meetings with each of the schools. We planned the timelines of student talks, applications, etc. so it’s a very similar model to which we used last time.”

(Employability Manager)

Marketing and recruitment strategies

While lead schools typically took responsibility for content and delivery, universities had responsibility for marketing and recruiting undergraduates for the Paid Internships programme. One interviewee said they had played a substantive role in the marketing, recruitment and selection processes, hosting talks to promote the programme among maths and physics students and facilitating a shortlisting event attended by all three lead schools.

“We were involved with the application, we supported the recruitment process. We hosted a series of talks at the university, when teachers [from lead schools] came in to talk to the maths and physics students, and we managed the application process. The applications all came into our

employability service, and then we had a shortlisting event at the university with all three schools present. Then we hosted the interview day and we hosted a celebration event at the end of the internship.”

(Employability Manager)

Marketing activities mentioned by other interviewees were predominantly focused on online activity via university careers websites, social media (Twitter and Facebook), or bulletins on the students’ intranet. All four universities also sent targeted emails to students who met the recruitment criteria, or facilitated promotional email contact directly from lead schools.

“They [the teaching school alliance] provide us with some sort of collateral and a link to the application form. What I’ve generally done is sent that out to relevant students, so second-year students on maths, physics, [...] astrophysics and engineering courses. I’ve gone into the classroom to talk about the scheme with students. I’ve done that the last couple of years but not this year, I asked the programme leaders to do it due to time pressures.”

(Faculty Associate Pro Vice-Chancellor for Learning and Teaching)

Offline promotion was also important, and included:

- posters displayed in university employability centres;
- promotional slides/talks delivered during maths and physics lectures by the careers service and lead schools/teaching school alliances; and
- end-of-year showcase events, with speakers and past interns presenting on their experiences.

The application process was facilitated by the universities. However, responsibility for facilitating this process was undertaken by different departments within the four universities, including the careers service, employability service and by a department who had responsibility for widening participation and outreach. Generally, all universities required students who were interested in applying for internships to submit an application form along with a cover letter detailing the reasons they were interested in undertaking an internship. Three interviewees reported that interviews with applicants were typically conducted by the schools offering placements. However, in one case, for logistical reasons, interviews were facilitated and hosted by the university.

“I was in several planning meetings where we were agreeing about how the recruiting was going to happen, what was involved in terms of the students writing a letter and application. [The] Careers [department] ran an event online, and then hosted an event where I know the local [teaching school alliance] came in and spoke to people about it who wanted to be involved in the internship. There was a deadline for applying. Following that, they conducted interviews with potential applicants and shortlisted.”

(Senior Lecturer and Programme Leader)

In summary, all interviewees felt that marketing activities had been effective, based on the number of applications received. One interviewee noted that directly targeting students that met the recruitment criteria by email had been the most effective approach to promoting the internship programme. Another interviewee mentioned the importance of providing potential applicants with information about the placement schools.

Considerations that were reportedly cited by potential applicants included geographical location, quality of school, size of science department, and opportunities to experience teaching both GCSE and A-Level curricula.

Design and delivery of the internships programme

Design of internships

Universities who partnered directly with a teaching school alliance (rather than an individual lead school), had little or no involvement in the design of the programme, although one interviewee reported having some input into the initial programme induction:

“It’s managed by the [teaching school alliance], so the university are not managing it. The four-week programme starts off with a university input, which is, you know, sort of, a contextual day, really, setting the scene in terms of what teaching looks like, what we’d be expecting them to do, etc. The rest of the programme they’re in the school.”

(Acting Head of Department for Teacher Education)

The two universities who partnered with an individual school reported more involvement in the design of the programme. One university provided input into the design by incorporating guidance from their university’s School of Education colleagues, who offered and managed school placements for the ITT courses they offered.

“It was new to everybody, so that programme was put together with the school and their previous experience of trainee teachers. It was done with guidance from our [education department], and then [we undertook] a little bit of profiling about the backgrounds of our students.”

(Employability Manager)

In another case, university involvement with the design of the programme included discussion around the observational and shadowing activities that students could undertake on their placement. The university shared their experiences of what has worked with other student placements, and the types of activities that would serve as good preparation for teacher training programmes.

Delivery of internships

The length of the internship (four weeks) was felt to be an appropriate length of time by the universities. Several interviewees commented that any less time would not be sufficient to immerse students in the school environment, and allow them to contribute to teaching, and that any more would be too much of a commitment for students at that stage.

“If it was one or two weeks, they probably wouldn’t feel that they’d developed a real understanding or made a contribution to teaching. I think doing four weeks allows them to get a taste without it dominating the whole period of time.”

(Faculty Associate Pro Vice-Chancellor for Learning and Teaching)

Two interviewees felt that the timing of internships worked well. Interns undertook their internships towards the end of the academic year, after university assessments had taken place. One interviewee raised an issue around the fact that some student tenancy agreements only run until the end of June, while the internships run into July, meaning there could be challenges around accommodation. They also suggested it may be easier to recruit students for internships if the placements did not run over the summer break, when many students prefer to go home or pursue other placement opportunities.

Support for paid interns

One of the four universities interviewed provided a briefing session for interns, prior to their internship, on how to behave in a professional environment.

“We do a briefing session [for interns]. We go through briefings on professional attitude, the importance of their dress standards, punctuality, what to do if they do encounter any problems.”

(Employability Manager)

This university also offered support to those interns who, on completion of the internship, wished to pursue further teacher training; the university’s employability team helped students complete application forms for ITT courses and conducted mock interviews as preparation for the interviews with ITT providers.

The remaining three interviewees reported that support for interns was provided via the lead school / teaching school alliance, and that their universities, therefore, did not provide support. Interns were also able to access generic support via the university career services.

“The university doesn’t [offer support] but that’s led by the school. I know the school offer further school experience, and I know that they’ve written references for applications. They’ve obviously got that contact there in the

school if they need extra support, so the university has not followed up, but the school has, because it's really the school's project, not the university's."

(Acting Head of Department for Teacher Education)

Evaluation

University interviewees reported that formal evaluation of the internship was managed by lead schools / teaching school alliances (typically through surveys administered to students on completion), and feedback was shared with the universities. One interviewee reported that the lead school and university had used this feedback to inform refinements to the future delivery of the programme.

They cited positive feedback given informally by returning students following the internship. However, only one university actively sought feedback (through its employability service), from interns through feedback forms.

"We get them to evaluate the interview and, sort of, the recruitment process, the preparation work we do with them and the schools do with them prior to going into the internship [and] their experiences during the internship. Then we look at how they're looking to build on that going forward."

(Employability Manager)

Another interviewee acknowledged that the university would ideally like to collect feedback from its students, rather than relying on information provided by the partner school, but did not yet have formal mechanisms in place, although they planned to do so.

Overall experience and future plans

Overall, all four interviewees spoke positively about the programme, which was felt to benefit their universities, in addition to the schools and students. Interviewees did, however, articulate a number of areas where improvements could be made, largely related to marketing and applications. For instance, one interviewee felt that it would be beneficial for the programme if the application stage was to be brought forward to earlier in the academic year, when students may be less burdened with course commitments.

"I think from the university's perspective, looking at the academic year, it would be nice if we could have had the applications brought forward. The greatest level of student interest is in that first term of the academic year, that's when you can get them hooked on lots of different schemes. As they get into their second term, the level of expectation in terms of coursework increases, so they get more focused on their studies, rather than other opportunities. This would lead to a greater number of applicants."

(Employability Manager)

Generating enough student interest to secure the engagement of schools, and to ensure momentum for the programme was sustained, was important for some interviewees. For instance, one spoke about how they planned to counter the low number of applicants, which in the university's experience resulted from small numbers of maths and physics students to target internships at. The interviewee felt that extending the parameters of recruitment to include students on degree programmes still with a sufficient focus on maths or physics (e.g. combined subject degrees), might increase the number of potential applicants. Another interviewee spoke about how they planned to implement changes to their marketing events to include presentations from former interns and to allow potential applicants to speak both with teachers from the placement schools and former interns. A third interviewee said that the cap on the numbers of internships on offer was a hindrance to extending the programme¹¹.

“The cap on numbers is the limiting factor, really, in terms of extending the programme and including more schools across [the locality]. It would be good to get the students out further afield in more remote schools across [the locality].”

(Senior Lecturer and Programme Leader)

Interviewees were not able to draw on any formal evidence of the impact of the programme, but all felt that the internship had increased the number of students seeking to pursue a career in teaching. Interviewees cited anecdotal evidence of interns going on to make applications for teacher training. The programme was also felt to increase applications among those who had not previously considered a career in teaching, and that it generally helped raise the profile of teaching as a potential career option to maths and physics students.

“I think probably quite a lot of our students wouldn't have thought of a teaching career. So, yes. Even those that were unsuccessful in getting the internship, I think it's still maybe raised the prospect of being a teacher with some of the students.”

(Faculty Associate Pro Vice-Chancellor for Learning and Teaching)

Interviewees also articulated a number of potential wider impacts resulting from the internship programme, beyond the increase in teaching applications, which included strengthening students' CVs and vocational skills. They also perceived an impact with regard to developing and sustaining relationships between universities and local schools.

“All of the students who have taken part in the scheme have boosted their CVs, I think they've gained lots of confidence, I think they've broadened their skill base. From the university's perspective, it's a very positive outcome, it

¹¹ Note that the DfE has subsequently increased the number of internship places available.

strengthens our relationships with the schools in the local area, so we see it as a win-win.”

(Employability Manager)

2.7. Findings from a survey with schools offering internships

Motivations to participate in the programme

At the point of participation in the survey¹², three of the respondents’ schools had employed five or more interns and seven of the respondents’ schools had employed fewer than five interns during the 2017/18 academic year. The majority of the respondents’ schools had previously worked with their lead schools through various teaching alliances¹³.

As displayed in Figure 7, most of the respondents first heard about the Paid Internships programme from a staff member at the lead school, and three first heard about the programme through communication from the DfE. One respondent heard about the programme from another higher education institution (HEI).

Figure 7: How did you first hear about the Paid Internships programme? (n=10)

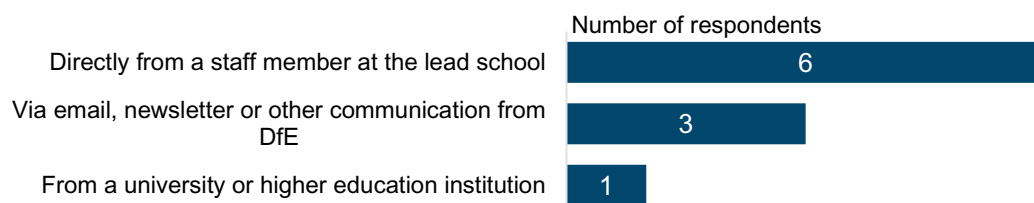


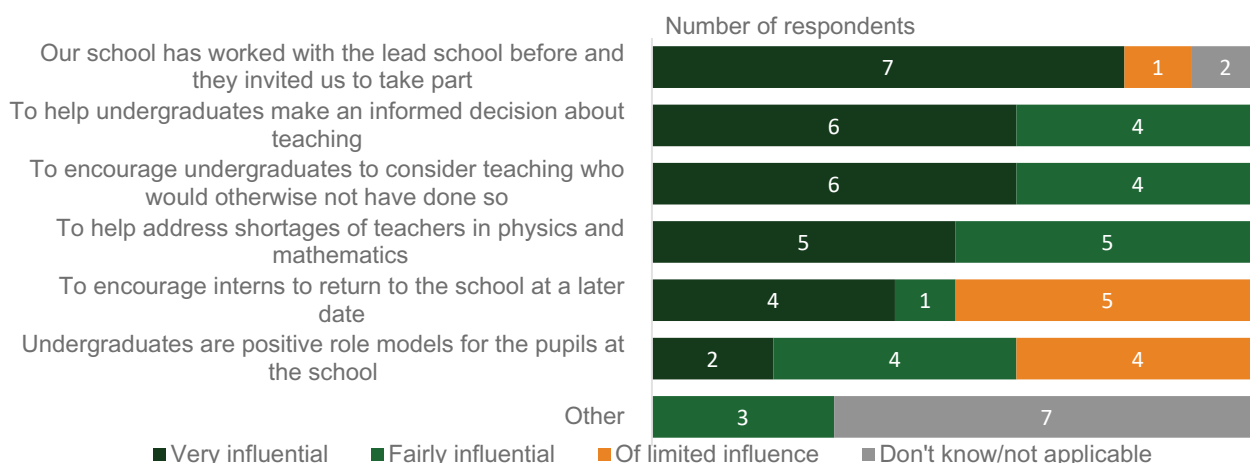
Figure 8 shows how influential certain reasons were in motivating the surveyed schools to participate in the Paid Internships programme. In summary, most schools were motivated by all of the reasons offered to some extent. Some of the most common reasons included:

- That the *school has worked with the lead school before* and they had invited their school to take part (‘very influential’ = seven);
- To *help undergraduates make an informed decision about teaching* (‘very influential’ = six, ‘fairly influential’ = four); and
- To *encourage undergraduates to consider teaching who would otherwise not have done so* (‘very influential’ = six, ‘fairly influential’ = four).

¹² Note that only ten respondents participated in this survey meaning the results are indicative, but should not be taken as representative of all participating schools. More details on the methodology are available in the annex.

¹³ One respondent was unsure whether their university had previously worked with the lead school.

Figure 8: How influential, if at all, were the following in your school's decision to participate in the Paid Internships programme? (n=10)



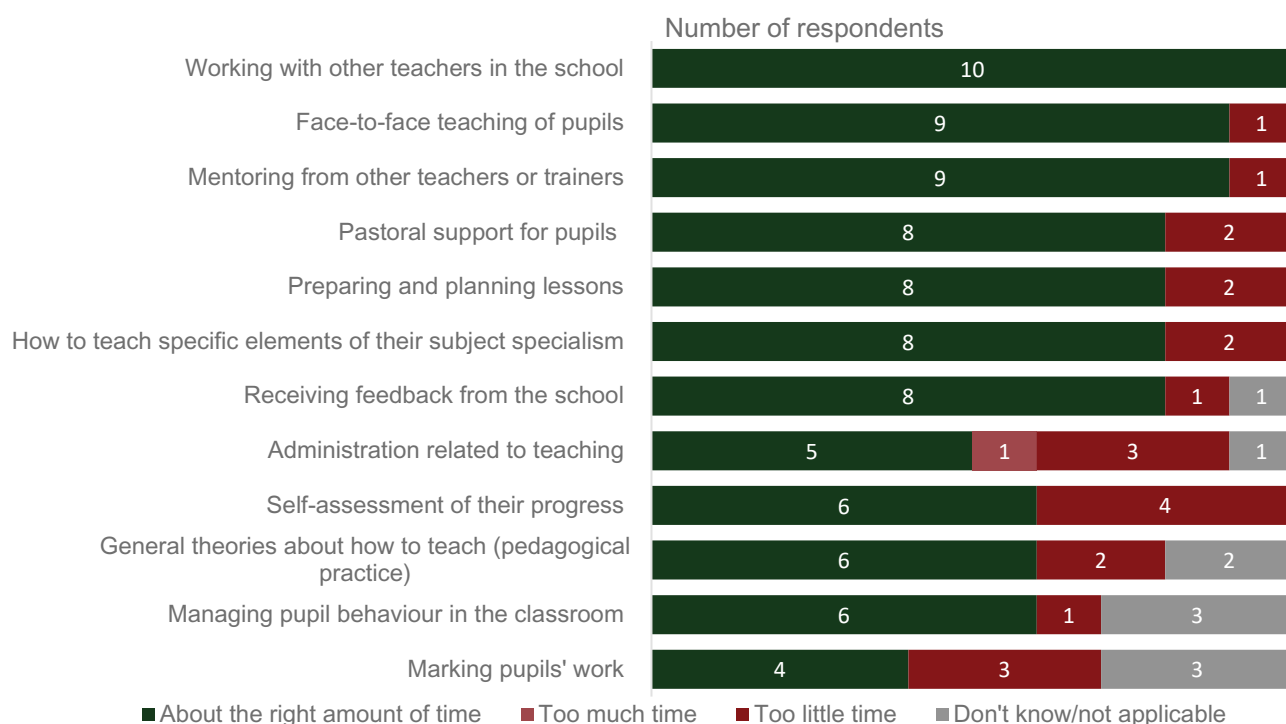
Three respondents also mentioned ‘other’ reasons’, all related to a pre-existing relationship between the school and the university advertising the internships to their undergraduates. The least motivating reasons for the respondents included *undergraduates being a positive role model for pupils* and *encouraging interns to return to their school at a later date*. This suggests that respondents’ schools were generally motivated by their relationship with the lead school and the overarching aims of the programme.

Experience of hosting interns

Respondents were asked about the internship activities and length of the internship. Overall, nine of the ten respondents felt that four weeks was the right length of time; only one school stated that the length of the internship was too short. This reflects the findings from other stakeholders and the interns, who largely felt the internship was an appropriate length.

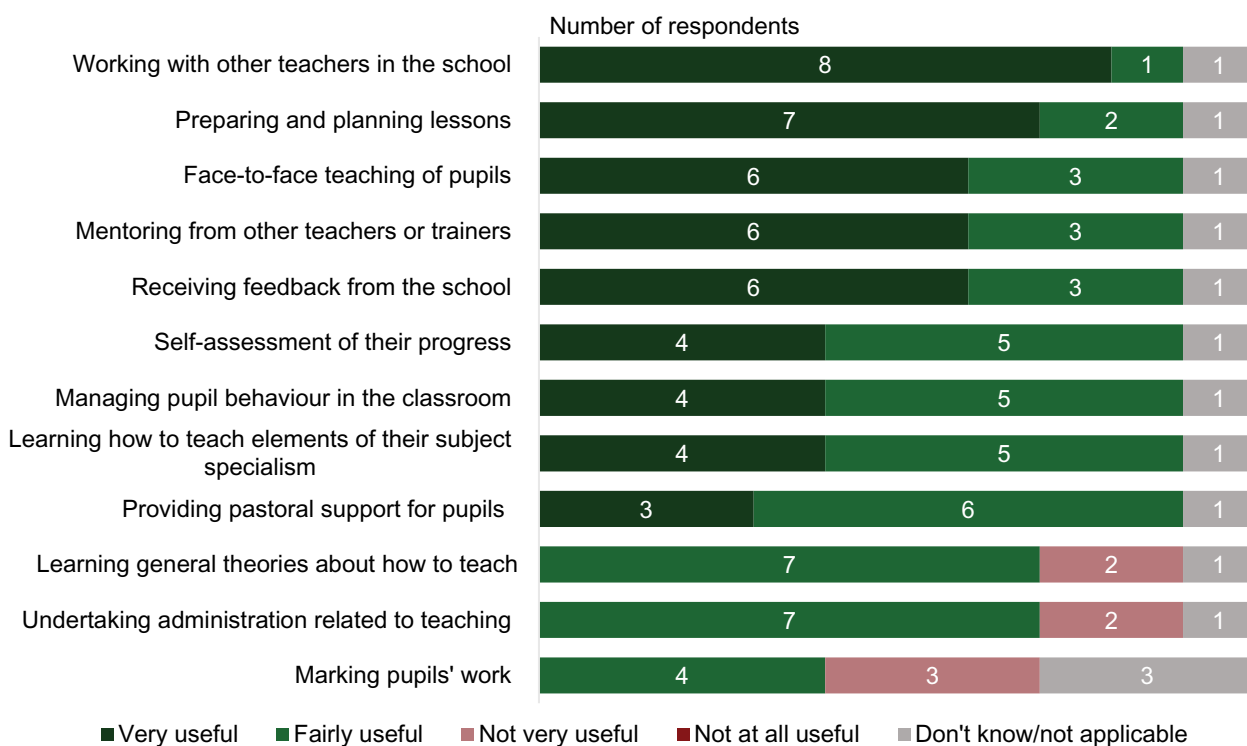
Figure 9 shows that all ten respondents felt that interns had spent the right amount of time working with other teachers. Almost all respondents reported that interns had spent the right amount of time teaching pupils (nine), and had received the right amount of mentoring from other teachers or trainers (nine). However, four respondents felt that too little time was spent by interns on self-reflection of their progress, with three saying not enough time was spent on administration related to teaching and marking pupils’ work.

Figure 9: Do you think the intern/s in your school spent too much, too little, or the right amount of time on the following activities during their internship? (n=10)



Respondents were also asked their views on the extent to which they felt that certain activities covered in the internships were useful in helping interns make decisions about pursuing a teaching career. These included learning about different teaching methods, self-assessment and managing pupil behaviour (see Figure 10). Most activities were rated as useful by respondents (either fairly useful or very useful). In particular, *working with other teachers* and *preparing and planning lessons* were both rated as very useful by most respondents (eight and seven respectively). There was less consensus for *marking pupils' work*, which was rated as not very useful by three respondents. Similarly, *learning general theories about how to teach* and *undertaking administration related to teaching* were each rated as not very useful by two respondents, although both were found to be fairly useful by the majority of respondents.

Figure 10: Based on your work with interns, how useful are following activities in helping interns make decisions about a teaching career? (n=10) ¹⁴

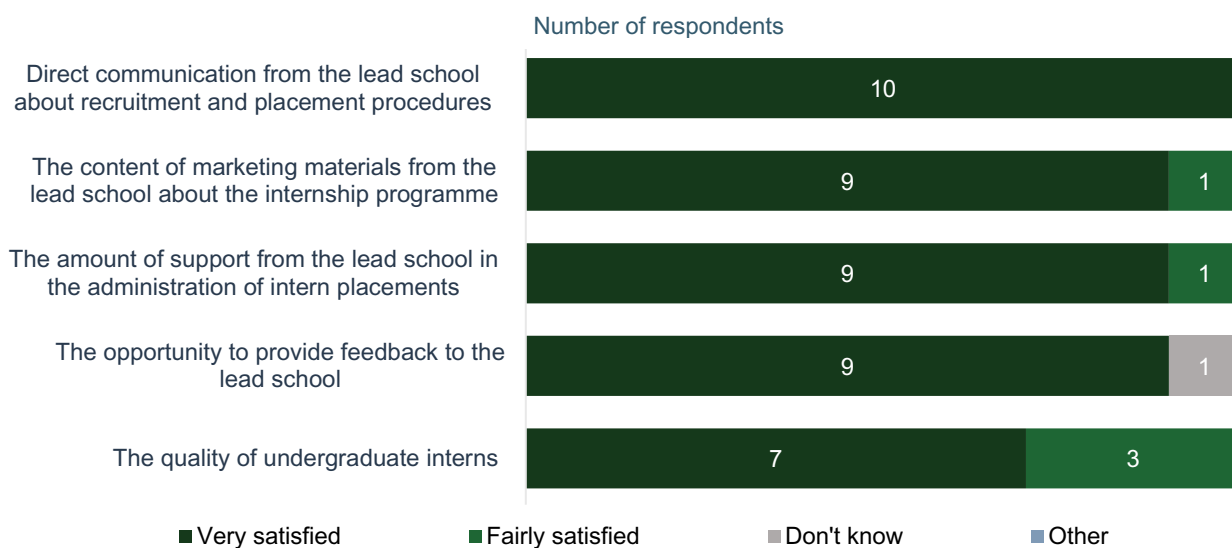


Attitudes towards the Paid Internships programme

Respondents were asked to state how satisfied they were with various aspects of their working relationship with the lead school managing the Paid Internships programme. Overall, findings in Figure 11 show that almost all of the respondents were 'very satisfied' with their working relationship with the lead school. Specifically, all - or the majority of - respondents were very satisfied with the *communication they received from the lead school about recruitment and marketing materials* (ten), *marketing materials about the internship programme* (nine) and the *amount of support they received from the lead school in the administration of intern placements* (nine). All but one of the respondents were satisfied with the *opportunity to provide feedback to the lead school*. All respondents also reported they were satisfied with the quality of interns (very satisfied = seven; fairly satisfied = three).

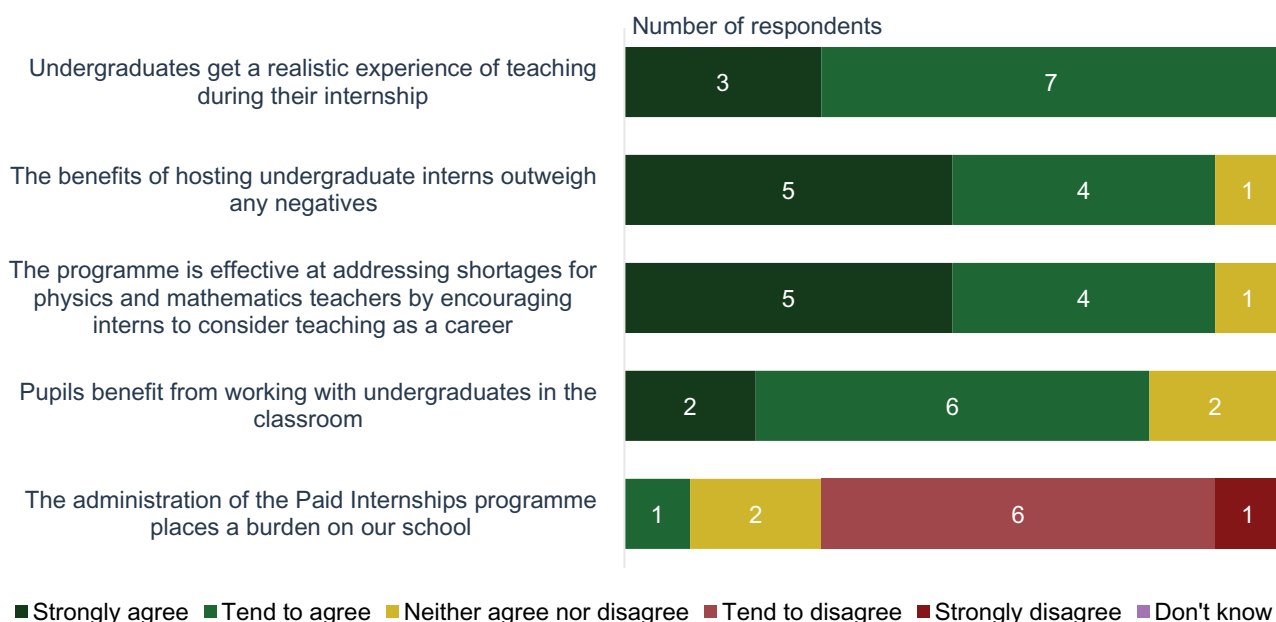
¹⁴ Note that one respondent answered 'Don't know/not applicable' to all statements.

Figure 11: How satisfied, if at all, are you in working with the lead school on the following aspects? (n=10)



As Figure 12 shows, over half of respondents (seven) did not believe that the administration of the Paid Internships programme placed a burden on their school. However, one respondent reported programme administration to be burdensome. All agreed that the programme provided undergraduates with a realistic experience of teaching.

Figure 12: Based on your experiences of hosting interns through the Paid Internships programme, to what extent do you agree or disagree with the following statements? (n=10)



Furthermore, half of the respondents strongly agreed that the benefits of hosting undergraduates outweighed any negatives (five), and a further four respondents ‘tended to agree’ with this statement. The same pattern of responses was seen when respondents

were asked about the effectiveness of the programme in addressing shortages in maths and physics teachers by encouraging interns to consider teaching as a career.

Moreover, seven of the ten respondents said that they would speak highly of the programme to teachers in other schools without being asked, and three would speak highly of the programme if asked. Overall, these findings show that the Paid Internships programme was highly regarded by the schools that were surveyed.

3. Future Teaching Scholars Findings

3.1. Introduction

This chapter presents findings from evaluation activities undertaken for the Future Teaching Scholars (FTS) programme between April 2017 and March 2018. The FTS programme is a six-year programme for high-calibre A Level students. The programme offers financial support and extra training during the student's maths or physics degree, followed by specialist teacher training. The main objective is to increase the number of maths and physics graduates pursuing teacher training, thereby increasing the number of maths and physics teachers in state schools in England.

The FTS programme offers a grant of £15,000 to scholars during their undergraduate study. The grant is provided in three instalments of £5,000 at the beginning of each year of study. On graduation, the scholar benefits from a pre-ITT training course, and is then assured a guaranteed place on a salaried ITT programme. The scholar receives professional development support over six years, including help in finding their first teaching position. To incentivise retention, some or all of the grant can be recovered if the scholar decides to withdraw from the programme within the six-year period. The FTS programme is managed by the Education Development Trust (EDT)¹⁵ and was delivered by seven Regional Training Centres (RTCs) at the time of the interviews. RTCs are teaching schools that co-ordinate all activities, events and support for the Future Teaching Scholars programme.

The findings include five interviews with scholars from cohort one of the programme (those who began in the academic year 2016/17) and four interviews with individuals from RTCs delivering the programme.

3.2. Key messages

Overall, the findings reflect positively on the FTS programme. Key findings from the interviews with scholars and RTCs delivering the programme (at the time of the interviews) showed that the programme had been successful in attracting those who already intended to pursue teaching as a career and that it had the scope to attract and secure prospective teachers earlier than other routes, because of the commitment required to complete the six-year programme.

¹⁵ The EDT (formerly CfBT Education Trust) are a registered UK charity that provide education research, consultancy and support services in the UK and internationally and have been running the FTS programme on behalf of the DfE since 2015.

Motivations

- Undergraduates interviewed were attracted to the FTS programme primarily because they were attracted to pursuing a career in teaching. Other motivations included the opportunity to gain practical training and real-world experience, the support available, improved employment prospects following the programme. Undergraduates suggested that the grant was an incentive, but not the primary attraction.

The Future Teaching Scholars National Conference

- The FTS National Conference¹⁶ was useful for enhancing interns' and RTC employees' understanding of the programme. It also provided the scholars with an opportunity to have their questions answered as well as the opportunity to network with other scholars.

Delivery of FTS courses

- Immersion days were highly regarded by undergraduates; they valued the opportunity to get to know the staff and the school environment, work with both teachers and students, and gain some teaching experience.
- The programme would benefit from further consultation between RTCs and scholars about the value and content of online modules, to help to align modules delivered face-to-face with online content. Scholar respondents held the view that modules and assignments were repetitive. However, the RTC interviewees reported that the online modules worked well.
- Greater dialogue between universities and RTCs to understand how the demands of the FTS programme align with scholars' degree commitments (e.g. exams and assignment deadlines) would be beneficial for FTS scholars, some of whom reported that the timing of assignment deadlines had been problematic.
- The RTC interviewees reported that most scholars were committed, capable and of a high quality. However, some issues were identified with some of the scholars, including their availability, confidence, maturity and professionalism; a workshop on professional etiquette for scholars prior to the programme starting was suggested by RTC interviewees.

Impact

- The RTC interviewees reported struggling to recruit and fill vacancies in STEM subjects, so they are highly motivated to address the shortfall and recruit high-quality teachers. The FTS programme aligns well with these objectives. It is too early to assess the long-term impact of the FTS programme, although most RTC interviewees were positive about the potential benefits of the programme, primarily that it will:

¹⁶ The Future Teaching Scholars conference for this cohort was held in Nottingham, in September 2016. The conference was attended by RTC representatives, STEM experts, and other scholars. More information is available here: <https://www.futureteachingscholars.com/about/latest-news/FirstConference>.

- attract prospective teachers with high-quality subject knowledge relatively early on in their academic careers; and
- provide an opportunity for future teachers to be more skilled and experienced in the profession when they enter the workforce, compared to those who come to teaching via other routes.

3.3. Methodology

This chapter outlines the key findings from:

- five semi-structured interviews¹⁷ conducted with cohort one participants on the FTS programme (those who began in the academic year 2016/17); and
- four semi-structured interviews conducted with RTCs delivering the FTS programme.¹⁸

Additional methodological information can be found in Appendix 1.

3.4. Findings from semi-structured interviews with FTS scholars

Motivations for applying to the programme

FTS undergraduate interviewees became aware of the FTS programme via teachers in their schools or UCAS communications promoting the programme. Most had support from teachers or parents to complete the application, but found it straightforward and simple to understand.

All interviewees reported they were already interested in teaching before applying. However, they all had intended to pursue a subject degree as opposed to a teaching degree, to 'keep their options open', give themselves more opportunities, or because they did not want to restrict themselves to a career in teaching. As such the FTS programme provided them with the opportunity to explore their interest in teaching without making a firm commitment to pursuing it. Interviewees were attracted to the FTS programme for a number of reasons including gaining real-world training and experience, the support available, improved employment prospects following the programme and the incentive payment (the grant).

The following comment was typical of the views of all interviewees:

¹⁷ Four of the respondents interviewed were studying maths and one was studying physics.

¹⁸ Two were directors of teaching schools, and two were RTC (programme) coordinators.

“I wouldn’t have changed my degree for the programme. It was just that the programme matched up with what I was doing, so it was a good thing for me.”

(Physics student)

Funding deed and grant

Responses about the process of applying for and receiving the grant were mostly positive, with only a few minor problems reported (e.g. being unsure about how to confirm attendance at university). Interviewees believed the repayment conditions were fair and, although it is an incentive, the grant was not the *main* attraction of FTS for most (four out of five) interviewees. The main incentive for these interviewees was the opportunity to gain practical training and teaching experience. The grant was primarily used to pay for accommodation and supplement living costs, and to pay for travel to and from schools for the programme.

The Future Teaching Scholars National Conference

Four out of the five interviewees attended the FTS National Conference, which was held in September 2016 and was attended by RTC representatives, STEM experts, and other scholars. All four who had been reported it as a positive experience. Interviewees commented that the conference was useful for enhancing their understanding of the programme, provided an opportunity to get their questions answered, as well as allowing them to network with other scholars and teachers. Interviewees also reported that attending the conference was a useful professional development experience. The respondent who was unable to attend was also positive as they received:

“...a satchel with all the information. I really appreciated that, so I missed out on actually being there, [but] I didn’t miss out on all the things that were given to you. They even sent me videos.”

(Mathematics student)

Support and benefits of the FTS programme

All interviewees stated that they felt supported throughout the duration of the programme, highlighting that schools were responsive, understanding and flexible around university commitments, and that they were made to feel included. Interviewees were also very positive about immersion days; they valued the opportunity to get to know the staff and school environment and got ‘*a really good sense of how schools work*’ (physics student), the opportunity to work with both teachers and students, and also to gain some teaching experience. One respondent said that observing the same teacher with different classes was a helpful learning experience:

“... just to see that the same teacher can really change their persona and the way they act around a class depending on their level and depending on the year group.”

(Mathematics student)

Interviewees were less positive in their reflections about the online modules. They said that modules, and thus assignments, were repetitive. One respondent commented that the content was not always relevant for them (e.g. working with children with speech impairments). The timing of assignment deadlines was sometimes problematic (e.g. during exams) and that there appeared to be ‘*no schedule as to when modules are released*’ (physics student).

This made balancing the demands of the FTS programme and their degree challenging at times. For example, one respondent described a situation where they:

“...hadn’t had a module released for three months, and then as soon as they released one, I also had a lab report due.”

(Physics student)

However, all interviewees said that the modules were useful, particularly those that focused on behaviour management techniques, and helped them to reflect on their experiences. Most interviewees reported that they received informal peer support from fellow scholars, either those from the same university or training centre, or from contacts made at the conference. For example, one respondent described how they created a group conversation on a social media platform, and used this to talk, share ideas and experiences, and ask questions about assignments or course content. In addition, interviewees reported very good support from RTCs in terms of receiving feedback, reflecting on their experiences, and providing flexibility around university demands. There were no negative findings reported about the support offered from RTCs.

Overall experience and future plans

Overall, interviewees reported that their FTS programme experience was extremely positive. They recognised the benefits of participation to be: gaining practical experience in a school/classroom, learning about teaching techniques and building connections and professional relationships with schools, teachers and other scholars. Four interviewees stated that they expected to be in a teaching role in five years’ time, while one plans to complete an MA before pursuing further teacher training. Of those that expect to be teaching within five years, all interviewees stated that the FTS had helped them decide to pursue teaching as a career.

“It’s really helped with me deciding that I definitely want to do this, and this is something that I know I can do, it’s something that is going to be rewarding

enough for me, emotionally, and that I'm willing to put in the effort it's going to require.”

(Mathematics student)

One interviewee said that they were unsure about how and where they could go for their two-year teacher training, and would have liked to receive more information about this earlier on in the programme.

3.5. Findings from the semi-structured interviews with Regional Training Centres

RTC objectives and approach to FTS

The FTS programme is closely aligned with the reported aims and objectives of RTCs, and with their wider medium to long-term recruitment strategies. As such, FTS aligns with the work that RTCs are already undertaking to recruit high-quality STEM teachers. The RTC interviewees reported struggling to recruit and fill vacancies in STEM subjects, and so they were highly motivated to engage in programmes that aim to address the shortfall of STEM teachers. One interviewee noted that they were recruiting on behalf of over 50 primary and secondary schools in their alliance and the shortage of STEM teachers in these schools is apparent; as such they welcome involvement in programmes such as FTS.

Another interviewee noted that their SCITT already hosts a number of ITT programmes and the FTS programme aligns with their objective of providing a range of provisions which aim to increase the supply and quality of teachers. By doing so, the SCITT hopes that FTS participants will return to the SCITT to complete their ITT.

“It's in our interest to give them some good experience, accelerate them towards the future standards [...] so that after their maths or physics degree is finished, they will come on to do their ITT course with our SCITT.”

(Director of Institute)

In delivering the FTS programme, RTCs stated that they followed the learning experience maps¹⁹ set out by the EDT including training and immersion days with scholars.

All four RTCs interviewed reported that the primary objectives of the programme had generally been well met and that scholars had reported positive experiences in their evaluations.²⁰ The four RTCs had been able to be flexible around the needs of the

¹⁹ The EDT requires RTCs to complete learning experience maps for each of the scholars. Learning experience maps detail an outline of training for each of the scholars, to ensure there is consistency in delivery of programme.

²⁰ Programme evaluation included collating feedback from evaluation forms completed by scholars including informal feedback. For example, one RTC asked scholars to complete a short evaluation form each time they attended a training/immersion day. Another RTC mentioned they used evaluation forms but did not

scholars and provide one-to-one support. However, some struggled with arranging placements for scholars due to scholars' degree commitments. The RTC interviewees noted that they would value greater dialogue with universities to understand how the demands of the FTS programme align with scholars' degree commitments (e.g. exams) in order to identify optimal times for training and immersion days throughout the year.

Programme objectives and impact

Although the four RTC interviewees reported that both the FTS programme and the individual scholars were meeting their objectives, it is too early to establish what the long-term impact would be. All four acknowledged that although multiple STEM recruitment schemes exist, the FTS programme is different in its approach as it is targeting potential teachers prior to attending university. However, the interviewees did not think the programme would attract scholars who would not already have been aware of, or already interested in, pursuing a STEM teaching career. Instead, they think the FTS programme will attract and secure prospective teachers *earlier* because of the length of commitment required to complete the programme:

“I think it pulls in people earlier, who have always wanted to be teachers. I think if you've got any doubt in your mind, you wouldn't sign up for the six-year programme”.

(RTC Coordinator)

One RTC interviewee was especially positive about the potential impact of the FTS programme on schools and STEM skills gaps, stating that:

“...there are so many gaps in schools and there are so many non-specialists teaching in those areas, because there are shortages. So, to have people like the scholars who have got really strong subject knowledge is a big pull.”

(RTC Coordinator)

Furthermore, they see the FTS programme as altering the negative STEM education, training and recruitment cycle into a positive one. One interviewee noted that high-quality teachers in these subjects would result in more pupils taking these subjects at university, and thus create another generation of potential specialist teachers.

“... if you don't have the highest-calibre teachers and people who are passionate about their subject, you're never going to get children then taking those subjects at university. So, it becomes a self-fulfilling prophecy, if you don't have the best in front of the children, the children are less likely to then carry on with those subjects. Equally, if you do have the best, then you're

specify when or how frequently. The other two RTCs were not specific about their evaluation methods but noted that they had received positive feedback from scholars.

going to have a wave of additional maths, physics and associated subjects being taken at university.”

(RTC Coordinator)

Programme development and delivery

All four RTC interviewees reported that they contributed to the design of their FTS programmes. One noted that they contributed suggestions relating to the content of the training days, assignments and modules, and the way in which the year three and four programme is mapped. Another commented that they made recommendations regarding the timing of paperwork and processing of scholars (like conducting DBS checks earlier), and that these recommendations were subsequently integrated into the programme. Another interviewee noted that the RTC, along with the Dean of the teaching school, undertook brainstorming sessions with schools to develop ideas for delivery, which were subsequently implemented.

“...next year we've got lesson study days, that was something that we discussed on those days, and something that [...] people really pushed for.”

(RTC Coordinator)

Only one of the four RTC interviewees reported having sought explicit feedback from scholars on programme delivery, which was relayed back to the EDT. Another RTC interviewee noted that some scholars had given positive feedback on the programme, which was also relayed to EDT. Of the remaining two RTCs who did not explicitly collect feedback from scholars, one interviewee noted that they planned to get feedback from future cohorts, while noting that the EDT could be “more organised in giving the scholars a voice”.

Three interviewees reported that most scholars were committed, capable and of a high quality. However, issues were identified with some of the scholars, including their availability, confidence, maturity and professionalism:

“We have had a challenge with them being quite inflexible ... they were [school] students themselves a few months before, so they've got very little idea of how to behave in a professional environment.”

(Director of Teaching School)

One expressed that scholars' expectations need to be managed, and guidelines set so that the scholars know what is expected of them, particularly in terms of availability, maturity and professionalism. Of the four RTCs in which someone was interviewed, three RTCs had a total of four scholar withdrawals. Three of these were due to the competing demands of the scholars' degree courses. The other withdrawal was because the scholar chose to change degree, but still intends to become a teacher.

RTC interviewees were positive about the quality of the online modules, structure of the programme of work (i.e. reading, research, activities) and assignments. However, they found that many schools did not understand how the FTS programme aligned with other DfE teacher recruitment and supply initiatives (e.g. Paid Internships, opt-in QTS degrees etc.). Two interviewees felt that the programme should be rolled out for additional subjects including languages, computer science and geography.

Links with other RTCs and the EDT

The interviewees were very positive about the EDT. They reported that training and briefings were excellent, and that the materials were highly professional and helpful. Not all interviewees had contact with other RTCs during the year. However, all had attended the conference and reported that it enhanced their understanding and commitment to the programme, and was a good opportunity to meet individuals from other RTCs and the scholars. A workshop hosted by the EDT on professional etiquette was suggested for scholars to undertake prior to commencing the programme.

Data collection and management

RTCs reported using a combination of their own systems, the EDT online 'VLE' (Virtual Learning Environment) system, and 'ZoHo'²¹ to collect and share monitoring data. Three interviewees reported that ZoHo was easy to use. Two interviewees reported that the online VLE system was difficult in the beginning, particularly to mark assignments, but changes made by the EDT had improved it over time.

²¹ ZoHo is a reporting software used by RTCs to report information about the scholars' programme attendance and assessment marks to the EDT.

4. STEM International Recruitment Findings

4.1. Introduction

This chapter presents findings from evaluation activities undertaken for the STEM International Recruitment programme between December 2017 and March 2018. The aim of the programme is to increase the supply of qualified science and maths teachers in schools in England by recruiting internationally. Recruitment agencies are responsible for marketing and communication activity, used to attract teachers to England. These teachers are recruited through countries that have requisite QTS-equivalent teacher training programmes, namely Canada, USA, Australia and New Zealand. Two pilot school networks – Practicum and Quantum – were funded to support the design of, and deliver, an international recruitment programme. Each of the school networks worked closely with a recruitment agency, with the agencies also providing support to teachers recruited through the programme, albeit to varied degrees, as will be discussed further.²²

The findings include:

- Interviews with three senior leaders from the two school-led networks who were delivering STEM International Recruitment programme activities at the time of the interviews; two senior leaders from schools employing teachers recruited through the programme; and five international teachers placed in schools through the programme (from cohorts 1 and 2).
- Survey findings from 21 (of the 58) international teachers who had been recruited through the programme during academic years 2016/17 and 2017/18.

4.2. Key messages

Overall, the findings suggest that the International Recruitment programme has had a positive impact on the recruitment of international STEM teachers, but long-term impact could be limited by poor retention. Emerging key findings are discussed below.

Motivations

- The programme has recognised benefits, both for placement schools and for international applicants. School-led networks and school senior leaders alike articulated the importance of international recruitment in addressing the shortage of

²² In April 2018 the programme was expanded, taking on board lessons learned from the network pilot delivery, to ensure national coverage across the eight regions. The regions have school-led networks (teaching schools and maths hubs), which each work alongside DfE contracted recruitment agencies. These school-led networks are responsible for delivering an acclimatisation package, including an on-arrival training event and ongoing professional development, in order to support teachers with the transition to teaching in England. In addition, schools which recruit through the programme are expected to appoint an in-school mentor to support the international teacher.

maths and science teachers in England, and this was the primary motivation for recruiting international teachers through the programme.

- Many of the international teachers were driven to apply to the programme to take advantage of the opportunity to experience teaching in a different country. Many of them were already actively seeking opportunities to teach abroad and the programme provided an opportunity to do so.

Recruitment of international teachers

- Recruitment agencies were highly valued by all stakeholders, and there was a consensus among interviewed teachers that using a recruitment agency made the process of seeking employment in England more straightforward.
- Although senior leaders from the two school-led networks (delivering the programme) were mostly pragmatic about the remote recruitment approach, some commented that face-to-face contact would have made the process more rigorous (for example, by allowing for lesson observations).
- A small number of international teachers reported feeling dissatisfied with the recruitment agencies' handling of the interview process.
- Schools reported that the challenges associated with recruiting international teachers included practical issues associated with securing sponsorship, once a position had been offered. Interviews with teachers recruited via the programme and senior school leaders alike identified administration associated with sponsorship and acquiring a visa to be the most challenging aspects of the application stage, reporting that this was both time-consuming and difficult.

Support for international teachers

- The school leaders interviewed felt that employing international teachers required them to provide far more support than if they had recruited domestically; including assistance with securing accommodation, provision of information regarding employment contracts, CPD and pastoral support. However, the additional effort was considered to be offset by the benefits of the programme in terms of filling STEM vacancies.
- The availability of support from the schools who employed international teachers was central to the positive experience described by programme recruits who reported satisfaction with their placement.

International teachers' experiences of their placements

- Around a quarter of teachers recruited through the programme who completed the survey were dissatisfied with their placement, attributing their negative experience to poor student behaviour or heavy workload. This was reflected in the interviews with recruited teachers who described difficulties with adapting to teaching in England compared to teaching in their home countries, and who cited specific challenges around workload and poor pupil behaviour.

Financial challenges of international recruitment

- Financial challenges were identified through the interviews with school-led networks, school senior leaders and international teachers. Practicum network-led respondents felt that increasing the budget would enable more overseas visits, making the interview process more rigorous. Financial support was found to be important in allowing schools to pursue the recruitment of maths and physics teachers and to allow them to be supported by the school once in post.²³

Impact

- Although neither school-led network had met their recruitment target, respondents felt their partner recruitment agencies had established strong relationships in international markets. They felt this would facilitate increased numbers of international candidates in the future.
- Just five of the 21 international teachers surveyed considered it likely that they would have pursued a position teaching in England in the absence of the programme, suggesting that the programme had facilitated recruitment of these respondents into teaching positions in England.
- However, the long-term impact of the programme may be limited since over half of those interviewed and surveyed were considering leaving England to teach in their home country.
- School-led network respondents felt that retention of international teachers should be a key consideration in ensuring candidates are matched to suitable schools, and offering support mechanisms to assist candidates' retention in England. Improved acclimatisation courses, designed to familiarise international teachers with English teaching practices, may also be beneficial. Only six international teachers surveyed attended such a course and three were dissatisfied with its quality.

4.3. Methods

This chapter outlines the key findings from:

- semi-structured interviews conducted with three senior leaders from the two school-led networks who were delivering STEM International Recruitment programme activities at the time of the interviews;
- semi-structured interviews conducted with two senior leaders from schools employing teachers recruited through the programme²⁴;

²³ It is important to note that both networks used the financial support offered by DfE differently. One network used the monies primarily for the CPD and support of international teachers, while the other used some of their funding to provide opportunities for recruiting schools to visit Canada.

²⁴ Both of the interviewees had direct responsibility for the recruitment of overseas teachers for their respective Multi Academy Trusts (MATs). Both MATs act on behalf of a number of schools within their locality. Both interviewees undertook similar roles on the programme; they managed the selection and

- a survey completed by 21 of the 58 international teachers²⁵ who had been recruited through the programme in the academic years 2016/2017 and 2017/2018, and who were teaching in a school in England (at the time that fieldwork took place); and
- semi-structured interviews with five respondents who had agreed to be contacted again after the survey they had completed on their experiences of the programme.²⁶

Additional methodological information can be found in Appendix 1. As noted earlier in the report, due to the small number of respondents who completed the surveys in this section, it is important to note that the findings presented may not be representative of all international teachers recruited through the programme. However, the findings do highlight the key themes and messages arising from the survey.

4.4. Findings from interviews with school-led networks

Of the three individuals from the school-led networks who took part in the interviews, two were part of the Quantum Scholars Network (one was the Network Lead and the other a Maths Hub Lead). The third interviewee was part of the Practicum Network. Further details of the two networks are provided in Table 2 below.

Table 2: School-led network details

	Quantum Network	Practicum Network
First year of operation	2016	2016
Number of partners ²⁷	6	3
Targeted recruitment activities	USA, Australia and New Zealand	Canada
Subjects	Maths and physics	Maths and physics

recruitment process for schools within their Trust. Each MAT had recruited more than one teacher through the STEM International Recruitment programme and interviewees had direct responsibility for the recruitment of overseas teachers.

²⁵ Of the individuals who completed the survey, there was an even split in terms of affiliation to each of the networks. Eighteen of the interviewees were recruited to teach maths, and three were recruited to teach physics.

²⁶ Note that one of the interviewees was offered a place in a school in England through the programme, but did not accept it (however, they participated in the application process); this is discussed further in the findings.

²⁷ School-led networks were comprised of a number of partners, including teaching schools, maths hubs and a recruitment agency.

Aims and objectives of the school-led networks

All three interviewees agreed that the main objective of their networks was to recruit international teachers to meet the demand for maths and physics teachers in England, and that international recruitment was important for this reason. Network leads recognised that STEM International Recruitment activities would have an impact on both the quantity and quality of maths and science teachers in schools. One commented:

“The main aims and objectives [of the programme] are to bring in recruits, teachers from overseas, to fill the shortage of maths and physics teachers that we have in this country. That’s the purpose of it, to try and tap into another market.”

(Quantum Network, Maths Hub Lead)

Organisation and management of networks

All three interviewees reported similar organisational methods of their school-led networks. Both Quantum and Practicum Networks worked collaboratively with an external recruitment organisation. Leads from both networks outlined that the recruitment agencies were predominantly responsible for the initial screening of applicants and the early selection process. The networks were primarily responsible for interviewing those deemed suitable by the recruitment agencies, and then if successful at interview stage, the recruitment agencies matched and placed teachers into schools.

One interviewee (Quantum Network, Network Lead) detailed the processes involved in their teacher recruitment. The recruitment agency advertised vacancies in target countries (Australia, New Zealand and USA). Initial screening interviews were then conducted with applicants by the agency. Maths leads from the network then conducted Skype interviews with those who cleared the initial screening process. Details of successful applicants were then passed onto schools within the Network and the schools conducted their own Skype interviews.

A similar approach was adopted by the Practicum Network, which recruits teachers from Canada. Their Network Lead explained that the network collaborated with a recruitment agency, which screened and conducted background checks on potential applicants. Colleagues from the network then conducted (mostly face-to-face) interviews with applicants. Successful applicants were then matched and placed in schools.

For the Practicum Network, management and distribution of workload was shared equally among the three schools in the network. The interviewee indicated that the majority of decisions were made jointly across the network and responsibility for delivering activities regarding the programme were shared collaboratively.

“[Partner] holds the budget. So, they look after all of the elements relating to the budget. But, in terms of decision making, they happen jointly at the meetings where we all come together or we’re speaking on the phone. Often, it would be us and [partner] that are having the phone meetings with external organisations such as the National College [for Teaching and Learning²⁸]. “

(Practicum Network, Network Lead)

In addition, a network representative noted that the three schools within the network regularly discussed programme activities via face-to-face meetings or conference calls. Each of the schools jointly contributed to the management of the programme and mutually agreed future actions, following monthly consultations. For the Quantum Network, although the management of the network was the responsibility of a few people, decision-making was undertaken by all schools in the network, with most decisions being made via email and through telephone conversations. An interviewee from the Quantum Network described how they had originally intended to undertake all recruitment activities themselves, but had not anticipated the level of resource and breadth of skills required to manage this process in-house.

“I think we started off quite, in a way, quite naively. We thought that we could probably do the recruitment ourselvesIt became quite clear ... that actually, we didn’t have the skills or the resources to do this and I think that’s an important learning point, really.”

(Quantum Network, Network Lead)

The network, therefore, made the decision to appoint a recruitment agency. Benefits were identified in the use of a recruitment agency. Schools in the network had good working relationships with the agency, who worked closely with schools to identify their needs, and had been able to recruit suitable candidates.

“Yes, schools do work very closely with the agency actually. It’s a great-, well I think it’s worked really well and I think that we’ve got just such an easy system going now. They’re very good at finding the right people, and in fact when they rank them, they’re very similar to us.”

(Quantum Network, Network Lead)

Promotion and recruitment targeting

International promotion of the programme was generally undertaken by the recruitment agencies for the networks. While the agencies did the international promotion activities (i.e. sending out e-flyers, running Google adverts), both networks promoted the

²⁸ Note that the National College for Teaching and Leadership (NCTL) has since been repurposed and the DfE now manages prior NCTL functions.

programme locally among headteachers and schools. The Quantum Network Lead spoke of the benefits of using a recruitment agency to promote the programme:

“They help to build up a brand and make personal contacts with partners overseas and also with business managers in schools in [England].”

(Quantum Network, Network Lead)

“Well, we work with a group called [name removed], who do a lot of the background work on the selection and processes that go on behind the scenes, but the network then does the interviewing and [supports the] placement of teachers in schools.”

(Practicum Network, Network Lead)

The recruitment agencies targeted countries where English tended to be the primary spoken language and qualifications were comparable to teaching qualifications in England. Although only the Practicum Network recruited teachers from Canada, all three interviewees spoke about the advantages of recruiting from this country. There appeared to be several advantages. Firstly, Canadian teachers tended to have extensive experience in schools; secondly their qualifications were directly comparable to those needed to teach in England; and finally English was often their first language.

Outcomes and Impact

All three interviewees felt they had met the overall outcome of the programme in terms of recruiting international teachers and placing them in schools in England. Although neither of the school networks had met their recruitment targets for the 2016/17 and 2017/18 academic years (50 teachers per annum for each of the networks), all three interviewees felt positive about their progress in the recruitment of teachers so far:

“It’s gone pretty well, given the timing was totally wrong for Australia and we had been limited for where we could recruit from. We’ve got 25 [teachers] to date.”

(Quantum Network, Maths Hub Lead)

“... we’re pretty happy that we’ve got as close as we possibly can to the target.”

(Practicum Network, Network Lead)

Interviewees indicated that they were less concerned with reaching targets at the time of interview²⁹; building successful relationships in new international markets and ensuring that the programme was seen to be attractive were their main priorities. The Maths Hub Lead from the Quantum Network noted that their ability to engage and communicate with

²⁹ December 2017 to March 2018 i.e. the 2017/18 academic year

international universities successfully, had resulted in the development of positive working relationships with them, and allowed the network to establish suitable mechanisms for targeting teachers.

There was a consensus among interviewees that recruitment activity would increase the number of STEM teachers in schools in England, increase the subject knowledge of teachers, and improve the pupil attainment at GCSE level. However, it is important to note that the interviewees felt that the ability of the networks to increase the quality of STEM teachers in schools was dependent upon the extent to which the recruitment process was rigorous in selecting high-quality teachers. There was also an agreement that networks would not directly impact on the retention of teachers once they had been placed in schools, as this was seen to be dependent on external factors, such as the mechanisms in place to support teachers.

Concerns were raised by the Quantum Network about the numbers of teachers recruited but who had dropped out of the programme, either before being appointed to a school or after a contract had been signed and their arrival in England. Network Leads suggested that there were probably a number of reasons for this, and the issue required further investigation. Nevertheless, the two Quantum interviewees were optimistic that even with these drop outs, they would be able to reach their targets in subsequent years.

“Now, there is often a drop-out rate, and that’s normal, we’re doing everything we can to help those people when they get here, give them a good start, bring them all together, help them to bond with others, meet other people in their areas, so, hopefully, our drop-out rate will be low.”

(Quantum Network, Maths Hub Lead)

Although interviewees were pleased with their progress in recruiting teachers from abroad, several factors resulted in them not being able to reach their targets. One of these was the financial assistance available to the networks. The overall programme budget was identified as a major concern by all three interviewees. The interviewee associated with the Practicum Network felt that increasing the budget would enable headteachers and leaders to make more international visits to the countries they were targeting which, in turn, would make the interview process more rigorous. The Practicum Network interviewee felt that an increased budget would allow for more face-to face opportunities, so applicants would be able to meet with headteachers and leaders from England as part of the recruitment and interviewing process.

Interviewees commented on the impact of any changes in migration policy and associated uncertainty as potential barriers to networks’ abilities to achieve their aims and objectives. One interviewee spoke explicitly about the potential impact that visa restrictions would have; it was perceived that schools may be deterred from recruiting from abroad due to the rigorous processes involved in sponsor licenses, especially in a climate where school-level budgets are already stretched.

Some additional expected impacts of international recruitment were also identified, including broadening the diversity of the teacher workforce and providing role models for young pupils:

“[A benefit is] schools generally just to have that breadth of diversity. So, role modelling for young people, broadening horizons. Particularly in schools where aspirations can be low, having somebody who has travelled and has made, sort of, a bold step to work abroad for a fixed period of time is really great role modelling for young people. So, in areas where children don’t have that, sort of, role modelling and have very limited horizons, being taught by somebody with that level of experience is really helpful.”

(Practicum Network, Network Lead)

Support and benefits for recruited teachers

It was evident from the interviews that although all interviewees agreed it was important to provide support for internationally recruited teachers, the nature of that support differed between the two networks. The Quantum Network placed significant emphasis on the CPD support. One Quantum interviewee noted that international recruitment was seen as a two-way exchange process, whereby international teachers are not only recruited to fill gaps, but are also given opportunities to develop their own pedagogical knowledge. It was clear that the Quantum Network placed particular emphasis on ensuring that recruited teachers also benefited from their appointment at a school in England.

“Ours is a good model, because if we’re recruiting from overseas, the people coming to join us must gain something from the experience. So, it’s not just the bums on seats, because we happen to be desperately short here. It’s more of an exchange than it is, you know, just come over here and teach because we’re desperate.”

(Quantum Network, Maths Hub Lead)

Teachers placed in a school within the Quantum Network are provided with the opportunity to work towards Masters credits, which are funded by the network:

“We’re funding the first three Masters credits so that when people get here, they actually do some training. They learn about what we’re doing in England, there’s a chance at a Masters qualification, which they can complete when they get home [...] and it’s online, so we feel they’re getting something from the experience.”

(Quantum Network, Network Lead)

Teachers recruited through the Quantum Network undertake a residential week when they first arrive in England, to familiarise them with the educational system in England and to ensure that they are “classroom ready” before they begin their new role. During the week, the international recruits are involved in CPD sessions. The session topics range from

safeguarding to planning and assessment. Alongside those sessions, new recruits listen to talks given by experts from organisations such as OFSTED, the National Council of Teachers of Mathematics (NCTM) and the Institute of Physics.

“We’ve got, you know, various other speakers. We’ve got someone doing a session on mastery. We’ve got [name removed] down from the Enrich programme coming in talking about enrichment in maths education so I think it’s a really good programme and if you knew anything about maths CPD, those names, you’d be gasping at me, to be honest. [...] we’ve got those people coming in to do a really good, upbeat [...] programme with them”.

(Quantum Network, Network Lead)

It was perceived that additional CPD opportunities offered by the network made the prospect of teaching in England more attractive to international teachers.

“It’s certainly been, when I’ve interviewed them, attractive to them; the fact that they are going to get specialist CPD and the fact that there is the option of the master’s course. They see that they are getting something for it, rather than just getting a job here. So, certainly, that’s been quite attractive when I’ve interviewed teachers.”

(Quantum Network, Maths Hub Lead)

The Practicum Network placed greater emphasis on supporting teachers in their move to England and ensuring that practical, financial and social support was available to them. Those recruited through the Practicum Network received £1,000 to assist them in their move to England. Additionally, the placement school also received a financial contribution to support teachers’ CPD during their employment.

“Being able to offer the money to the teachers has definitely made a difference. Given the changes in currency and exchange rates, it isn’t a cheap option to come and work over here. So, being able to give them some money towards that relocation, I think, has been really helpful... and that’s come from the grant money that we’ve had.”

(Practicum Network, Network Lead)

The Practicum Network has also established networks of support for recruits to draw upon. The Network Lead explained how they believe in placing teachers among people from their home country, to help reduce isolation and to help them integrate into the community.

“They’re not left on their own. They’re not, kind of, dumped in a school and left to get on with it. They’re placed in groups, where they’ve got a community around them, and that has proved to be very successful [...] So, again, there is that feeling of community and support which has a significant impact on retention, because no school wants a teacher that comes for a term and then just disappears. That’s not good for consistency. So, having a

teacher that stays for a year or, even better, two, is really good for the school and it's a good amount of experience for the teachers as well."

(Practicum Network, Network Lead)

Those responsible for delivering continued support for international recruits differed between the networks. One interviewee explained that ongoing pastoral support was provided by their recruitment agency, which:

".... checks in, making sure that everything's alright, being that, sort of, go-to person for questions and queries, supporting with trying to find accommodation and making sure that they understand what they would need in order to set themselves up. So, they're really well looked after."

(Practicum Network, Network Lead)

On the other hand, the Quantum Network Lead stated that they were responsible for keeping in touch with the recruits themselves:

"The idea is that we will continue to keep in touch with them. The Maths Hub know the locations of these people, where they're going and which schools, and they will continue to support them over the first year or so."

(Quantum Network, Network Lead)

Lessons learned

Some common areas of what has worked well were identified. In particular, all three interviewees spoke of the importance of developing good working relationships with the recruitment agency and developing appropriate mechanisms for advertising, sifting and interviewing applicants to the programme. As noted earlier, although both networks differed in terms of how they delivered these activities, they had suitable mechanisms in place, which were deemed to be successful in recruiting international teachers.

Additionally, all three interviewees spoke about the importance of retaining teachers for the duration of the visas. A number of factors that would affect retention rates were identified. These included ensuring that appropriate support mechanisms were in place for teachers and ensuring that teachers and schools were suitably matched. This was seen to be achievable by developing in-depth knowledge of the needs of the placement schools and understanding the strengths and needs of recruited teachers.

"A lot of the success of the placements come down to making sure you know your schools and you've interviewed well and effectively. So, you understand the strengths and needs of the teachers that you're recruiting and then you can match them correctly to the schools that you've got. So, that face-to-face time is really important and, obviously, with tight budgets, that can be limited."

(Quantum Network, Maths Hub Lead)

For the Practicum Network, particular emphasis was placed on the need to have appropriate and sustained relationships with universities in countries they were targeting. The Network Lead felt that the opportunity to communicate efficiently with universities in Canada and, in particular, to meet face-to-face, had allowed the network to access and attract international teachers. However as noted previously, limited financial resource had had an impact on the extent to which network members could visit Canada to establish relationships with universities.

“It’s been around the network and communication with the universities in Canada that have been the most successful element of it, and having close working relationships with the different universities that’s allowed us access to the graduating teachers. That’s what’s given us the thought, if you like. There is never enough money in the pot, is there? And with such a limited budget, it does mean, you know, that things can be difficult, because it restricts the number of visits you can do and the number of face-to-face things that you can do.”

(Practicum Network, Network Lead)

Incentivising international teachers, in particular those from Australia, was felt to have limited the success of the Quantum Network in recruiting teachers from that country. From interviews with both Quantum interviewees it was evident that teachers in Australia were in receipt of higher salaries, and this may disincentivise teachers from coming to England.

“Where there are young teachers in Australia, we can get them, but we’ve had interest from teachers who have been teaching three or four years and the salaries in England are such that we just can’t recruit them. Our salaries aren’t good enough. Because cost of living and everything are different, but that’s certainly something. Our agency has interviewed a few and they’ve asked for [a higher] salary. I mean, I think there’s one who said, ‘Can you get it closer to £60,000?’ I laughed and said, ‘God, that’s more than I earn as Assistant Head’. So actually we’ve got a problem on salaries to entice them in.”

(Quantum Network, Network Lead)

Interviewees from the Quantum Network said some of their partnerships had not worked well and may have impacted on their ability to develop appropriate mechanisms for recruitment. However, the interviewees reported that communication had improved with partners and envisaged working relationships would improve in the future.

Finally, all three interviewees noted that in order for the STEM International Recruitment programme to continue and be successful, then it would be vital for schools to understand the benefits of recruiting international teachers. Without this awareness, the interviewees felt that the successes of the programme would be limited. Therefore, investment in

educating schools as to the benefits of recruiting international teachers could help the programme's objectives.

4.5. Findings from semi-structured interviews with school senior leaders

Motivations for recruiting teachers internationally

Both interviewees from schools that had recruited through the programme identified similar motivations to doing so, primarily that it helped meet the shortage of teachers in STEM subjects. Both interviewees said their schools had advertised positions domestically, but had struggled to recruit teachers for the vacancies. One stated:

“Maths and physics are subject areas [that we struggle to recruit for] and I don't see any sign of that changing. We struggle with maths, physics and chemistry, because of the shortage, so sometimes we do have to go to [an] agency. We've offered sponsorship for teachers of this subject area.”

(Multi Academy Trust (MAT), Practicum Network)

Both respondents articulated concerns with recruiting overseas teachers, including their potential lack of knowledge of the curriculum and the educational system in England, cultural and language differences, differences in class sizes from other countries, as well as differences in pedagogical practice. In the quote below, one respondent spoke specifically about differences in the pedagogical practice of overseas teachers, in particular teachers from Spain³⁰, and the implications for learning support provided to pupils.

“We do typically find that if ... a teacher's been teaching in Spain ...the onus is typically on the pupil and the parents to support them with their learning, whereas here the onus is entirely on the teaching shift. So, that's something they can struggle with. That literally affects everything.”

(MAT, Practicum Network)

One interviewee noted that their MAT had recruited international teachers previously, but in fewer numbers than their subsequent recruitment through the STEM International Recruitment programme. The interviewee reported finding the former process challenging, especially in working with recruitment agencies who specialised in international recruitment. As noted in the quotation below, the interviewee recalled a situation where the

³⁰ The interviewee used Spain as an example of international recruitment more generally, though note that the STEM International Recruitment programme does not recruit teachers from this country.

agency had been unrealistic in their commitment to recruit physics teachers, which resulted in wasted time and resources.

“The reason it can be quite difficult is usually entirely dependent on the agency. Sometimes agencies have told us yes, they can [recruit] physics [teachers], but they’ve never taught physics before. We had this last academic year, we came to try to apply for a sponsorship [of a] physics [teacher], the lady had never taught it, so we weren’t able to progress with that.”

(MAT, Practicum Network)

Despite identifying a number of challenges to the recruitment of international teachers, both interviewees voiced a number of benefits too. They recognised the importance of employing teachers from diverse backgrounds, representing varied cultures, and providing pupils with alternative role models. Additionally, despite noting it as a challenge to international recruitment, differences in pedagogical practice were also identified as a benefit to pupils by one interviewee.

“Obviously, the international aspect, students get to see and hear, and be taught by people with a different cultural background and a different way of working that perhaps would benefit the student, because we don’t all learn in the same way.”

(MAT, Quantum Network)

The other interviewee made reference to the collective influence of teachers from a particular country in adding to the cultural diversity of a school. In the extract below, the interviewee provided an example of one of their partner schools hosting a ‘Canadian day’ for pupils. They felt that such events helped to improve pupils’ cultural awareness.

“At a school they had a number of Canadian teachers...The canteen put on Canadian food, they’d given them recipes. In all of the lessons they were teaching that day, in history they did Canadian history, in sociology they brought in a few things. ... Having a real mix of teachers within a classroom gives the students exposure. Otherwise the students don’t get that cultural diversity.”

(MAT, Practicum Network)

Recruitment of international teachers

Both interviewees spoke about the collaborative nature of their partnerships with the schools in their MATs and that their role, in the main, was to identify schools’ recruitment needs and to understand their requirements. In essence, the interviewees acted as the ‘middle men’ between their schools and the recruitment agencies.

Both interviewees noted that vacancies were first advertised domestically for three to four weeks, and if little interest was generated - or the quality of the candidates was not of the required standard - then schools' recruitment needs were discussed with the recruitment agencies affiliated with the networks. Suitable candidates were then put forward for consideration. All candidates had been vetted and interviewed by the recruitment agencies prior to consideration by schools.

Candidates were selected for interview on the basis of their CVs and were interviewed via video conferencing software by school representatives, after which successful candidates were offered employment. Pursuing and securing sponsorship for teachers was the individual school's responsibility, in addition to assisting in organising initial accommodation for teachers.

"I had to register with the Home Office, get the sponsorship, wait for that, and then do each stage as it went along, constantly keeping in touch with all parties. We got to certain stages with getting our licence, they [the overseas teachers] then had to get their visas. We also helped them [the overseas teachers] out with their accommodation. We were able to get some sort of accommodation for them so that when they first came here, they had somewhere [to live]."

(MAT, Quantum Network)

Both MATs successfully recruited for all advertised vacancies in the academic years 2016/17 and 2017/18 and both placed teachers in schools affiliated to their MATs. Generally speaking, both interviewees were content with the processes in place to recruit international teachers. However, one interviewee noted that although vacancies were filled, the process of doing so was considerably time consuming. The other interviewee noted that the method of video conferencing interviews was restrictive. For instance, video conferencing does not allow for prospective teachers to experience the school, nor does it allow school representatives to witness the interviewee teaching. The interviewee noted that although it would be useful for applicants to experience the school and vice versa at the interview stage, they understood that this would not be feasible.

Both schools had established good working relationships with their recruitment agency. Interviewees spoke about how much time and resource the agencies had dedicated to their MATs to ensure the right teachers were selected for consideration, and that adequate support was provided. As one interviewee noted in the quotation below, international recruitment would be difficult without the support of the recruitment agency. The other interviewee expressed a desire for the school to take on more activities currently undertaken by the recruitment agency. However they also recognised that managing the logistics of this may be difficult, for example, because teachers start at different times during the academic year and teachers are placed in different locations. Overall, both interviewees felt that recruiting teachers from abroad was worth the effort.

“It is, it’s quite time consuming. The more time you spend, the more you can assess the candidates for the position. I don’t think we’d do much overseas if it wasn’t for this one agency.”

(MAT, Quantum Network)

Support for international teachers

Both interviewees recognised that employing international teachers required schools to provide far more support than if they were to have recruited domestically. The schools provided international teachers with assistance in securing accommodation, provision of information regarding employment contracts (e.g. probation periods, notice periods, pay dates, salary information), access to CPD opportunities and pastoral support.

Responsibility for offering pastoral support to international teachers differed between the two MATs. As discussed in the findings from interviews with network leads, ongoing pastoral support was provided by the recruitment agency for schools affiliated to the Practicum Network. In doing so, the recruitment agency maintained regular contact with international teachers, and provided support on a range of issues including accommodation. The agency also facilitated a social support network for international teachers, including a buddy support system. The interviewee whose MAT was affiliated to the Practicum Network did note that they would like to provide more pastoral support to their international teachers, but recognised the difficulties in doing so for such a small cohort of teachers, who may have differing needs.

“They [the recruitment agency] do social events before they even start, a lot of them are grouped by rental agreements for properties. We could do more of what the agency are doing on our own, but ...if we’ve got a cohort of four, who are starting at the same point, it’s quite difficult, if all of their start dates are different, they’re living in different locations in the UK, it’s difficult to offer that.”

(MAT, Practicum Network)

By contrast, schools associated with the Quantum Network had more responsibility for supporting international teachers. As such, it was apparent that the MAT affiliated to the Quantum Network was more involved in the provision of pastoral support for its international teachers. In addition to a buddy system, one MAT (attached to the Quantum Network) offered their newly-recruited international teachers a reduced timetable for one term, to allow them to participate in the school’s new starter programme, observe lessons, and engage in extra training and access peer support. This was done in an effort to provide them with the space and time to integrate and become accustomed to the teaching practices in schools in England.

“They [overseas teachers] had shorter timetables when they first started, they might still be on the shorter timetable, so that they had extra time, they

could go and watch lessons. Our CPD coordinator set up a programme for them, as well as what we would call our normal new starter programme... then, they had extra stuff so that they could integrate well into, let's say, UK teaching methods and the way things happen in the UK, and [in addition to] the normal [induction course], that every other member of staff would have."

(MAT, Quantum Network)

The MAT also ensured that the recruited teachers were put in touch with one another before they left their home countries, so they knew of each other once they arrived. The interviewee noted that this resulted in teachers interacting with one another on a regular basis, providing a community of support. The interviewee felt that these measures would impact positively on the retention of international teachers. Additionally, having a named 'go-to' contact within the MAT was felt to be important.

"I'm hoping we embrace them [international teachers] so well that my door is always open, they can always come and discuss things, and we can sort something out for them."

(MAT, Quantum Network)

Both MATs provided CPD opportunities for their international teachers, and these were on a par with those accessible for other teachers within the schools. Both interviewees noted that CPD opportunities were based on the needs of teachers, identified through observations and meetings with line managers, as contextualised by the quotation below.

"It's dependent on the number and the need. The teachers this year have said their main challenge is assessment for learning, whereas this time last year a different cohort said it was behaviour management. It depends on what the consensus is that year."

(MAT, Practicum Network)

Overall experience

Both interviewees reported recruiting international teachers through the STEM International Recruitment programme as a positive experience. One interviewee noted that the success of the programme resulted from a good relationship with the recruitment agency. Developing a trusting relationship, along with an in-depth understanding of schools' recruitment needs and teachers' support needs, had made the process of recruiting international teachers easier.

"If that relationship's right, they're representing you and the trust and the schools well, and they are representing the teachers fairly to us, as well. I know there are large agencies, we wouldn't work with them, because they don't offer that pastoral support, the fees are extortionate and we don't get the best quality candidates from it. They want to get the commission and ... they'll take on everyone and anyone. This agency [is] so selective in who

they take on, they make sure they've got all their qualifications, so that's so important."

(MAT, Practicum Network)

The second interviewee, despite reporting a positive experience overall, felt that the process of recruiting international teachers through the programme had been challenging, particularly in terms of the administration required to sponsor international teachers. They noted that although essential immigration checks for sponsorship were necessary, the length of time it took to gain formal sponsorship approval had been frustrating. This was particularly true for the schools in which teachers were to be placed, since they were not able to finalise arrangements for the arrival of international teachers.

"It's been positive. I'm not going to say it's been easy. The actual admin process... I found really long, and getting all the [the international teachers] certificates, etc. It took a lot longer than normal because we'd have to wait a month ... make sure you hit the right date, apply for everything, then just waiting for all of that to come through. You have to visit the website every day to see if it's come through, once you know the date of it happening. I do understand the necessity of it, but I just thought, you know, considering that we're doing everything through the Internet and everything else, it was slightly elongated."

(MAT, Quantum Network)

The same interviewee noted that they had received support from the Home Office, which helped them to understand how to navigate the sponsorship process. As they were an ex-civil servant, they also had knowledge of where to access relevant information and which Government departments to contact. The interviewee also stated that DfE guidance would have been useful for their MAT and other schools wishing to recruit teachers from abroad. Additionally, they felt it would have been useful if the MAT was put in touch with another school who had gone through the process of recruiting and placing international teachers, to seek guidance and support.

Impacts of the programme

Both interviewees recognised that teachers had only been in post for a short period of time and that it was too early to ascertain the overall impact international teachers had had on their schools. However, one interviewee noted, although anecdotally, that the international teachers placed in the school (along with other international teachers in the school) had had an impact on pupil attainment. They felt this was reflected in better attainment rates for the school since the international teachers had joined them.

Both interviewees also discussed the wider perceived impact of schools employing international teachers and felt that international teachers provided alternative role models for pupils. One noted that alternative role models are especially important for inner-city

schools, where pupil aspirations may be low. The other interviewee spoke about how the placement of international teachers in schools may motivate some pupils to seek employment abroad. Both interviewees also felt that the recruitment of international teachers would also increase the supply of STEM teachers to schools in England, and consequently reduce the shortage of physics and maths teachers.

Financial support for schools

As noted in the previous section, networks were allowed flexibility in how they used financial support for international recruitment activities, and each used it for different purposes. For example, the Quantum network used the monies primarily for CPD and support for international teachers, while the Practicum network used some of their funding to provide opportunities for recruiting schools to visit Canada to interview and observe candidates.

Both interviewees noted that recruiting and employing international teachers through the programme was an expensive process, and required considerable time and effort from schools. Both will receive financial support from their associated networks for recruiting and employing international teachers, however only one had received it at the time of the interview. For the MAT affiliated to the Practicum Network, the financial support was paid once international teachers had been employed for a specified length of time. For the MAT affiliated with the Quantum Network, the financial support had not yet been received, but they stated that they would use it for sponsorship and CPD for international teachers.

“We’ve been told that we could have some money. We have to do it through our, sort of, like, liaison [the Network Lead], so they are doing it, and then it’s coming to us. In the meantime, we have paid the recruitment agency their money, then the lady who deals with Quantum [Network] is getting it for us. We’ll use it on the sponsorship because the cost of the sponsorship certificates was quite pricey. Then, anything else, we’ll use for them for CPD.”

(MAT, Quantum Network)

Both MATs noted that they would be unlikely to recruit international teachers were it not for the financial support offered by the networks. One interviewee noted that, despite one of their international teachers leaving and the expense of recruiting international teachers, they did feel that they were getting a return on their investment.

“We’ve only had one instance where it [recruitment of a teacher] hasn’t worked out this academic year, and that’s [for] health reasons. Otherwise we do feel the return in investment, the more support we give them, the better they feel in their role, the more support that they get. So, yes, it’s definitely worth it.”

(MAT, Practicum Network)

Plans for the future

Both interviewees stated that their MATs would continue to recruit teachers from overseas. One interviewee was confident that it would be easier to do next time as they had acquired the knowledge of the processes needed to recruit teachers from abroad.

“Once you’ve been through the process and you know what you’re doing, if we decide to do it again, it’ll be easier having done the process. I’m trying to persuade other people, ‘It’s fine, there’s nothing in it. I’ll help you out.’ Other people aren’t interested in it, because of the process, of how long it takes.”

(MAT, Quantum Network)

The other interviewee stated that although they will continue to recruit from abroad, the cost of doing so was an inhibiting factor. However, they would continue to do so if suitable recruits were not identified from within England.

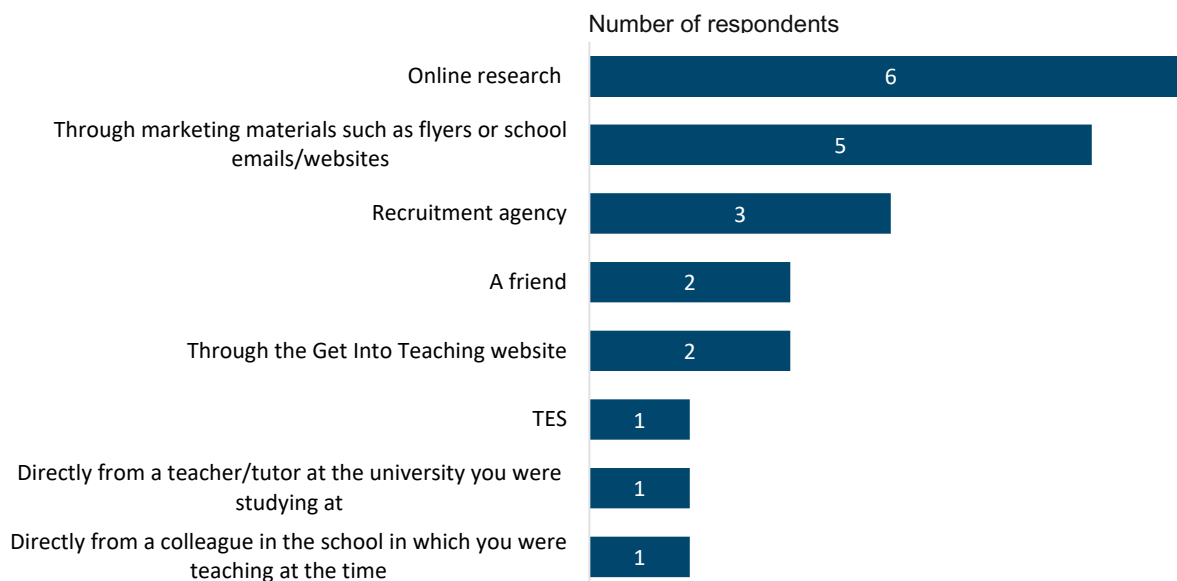
4.6. Findings from a survey and in-depth interviews with international teachers recruited through the programme

Motivations to teach in England

All five international teachers who were interviewed had already considered a teaching career in England, prior to hearing about the STEM International Recruitment programme and reported that they would have been unlikely to pursue teaching in England without the programme. The majority of the survey respondents (15 out of 21) had also considered a teaching career in England, prior to hearing about the STEM International Recruitment programme. As shown in Figure 13 below, five of the 21 respondents first came across the programme through marketing materials, such as flyers and school emails/websites. A further two respondents first heard of the programme through visiting the Get into Teaching website.

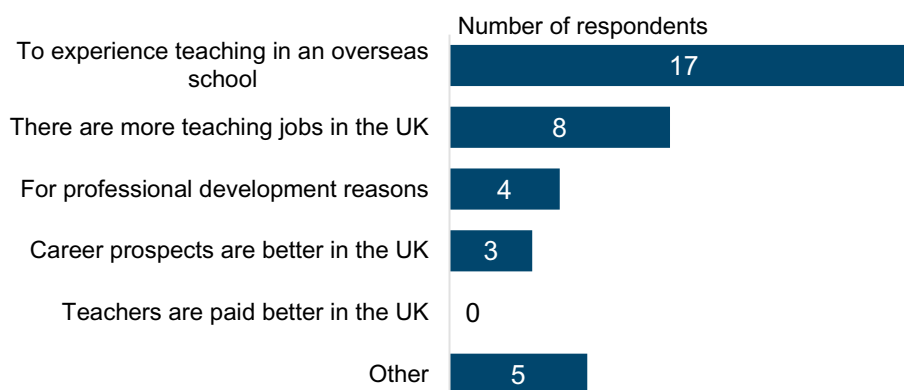
However, over half (12) of the survey respondents first came across the programme through another source, rather than directly through marketing activities associated with the programme. Six of those respondents who cited other sources had found out about the programme through their own online research, three through a recruitment agency, two through word of mouth among friends and one through the TES network.

Figure 13: How did you first hear about the International Recruitment programme? (n=21)



The majority of survey respondents (17) applied for a teaching post in England in order to experience teaching in an overseas school, as reflected in Figure 14. For these 17 respondents, five also stated the availability of teaching roles in England as a reason for applying, with four also specifying the opportunity to travel as a key motivation.

Figure 14: Why did you decide to apply for a teaching post in England? (n=21)



These findings are reinforced through the findings from the interviews with teachers recruited through the programme; the experience of both teaching and living in a different country motivated all five interviewees to apply to the programme. The lack of available teaching posts in two interviewees' home countries resulted in them being more open to the prospect of pursuing a teaching career abroad. Teaching in England was particularly attractive due to similarities in language and culture with their home country. One interviewee had previously taught in England, so was familiar with the school system and had a pre-existing support network. As such, this interviewee reported feeling fewer pressures and concerns associated with moving and living abroad.

“My mum’s from [town in England], my dad’s from [city in England]. So, I have lots happening there. I’ve got cousins in England and all around. So ...

I'm going to a place where I have people. Socially, I would have been fine. I would have been around family."

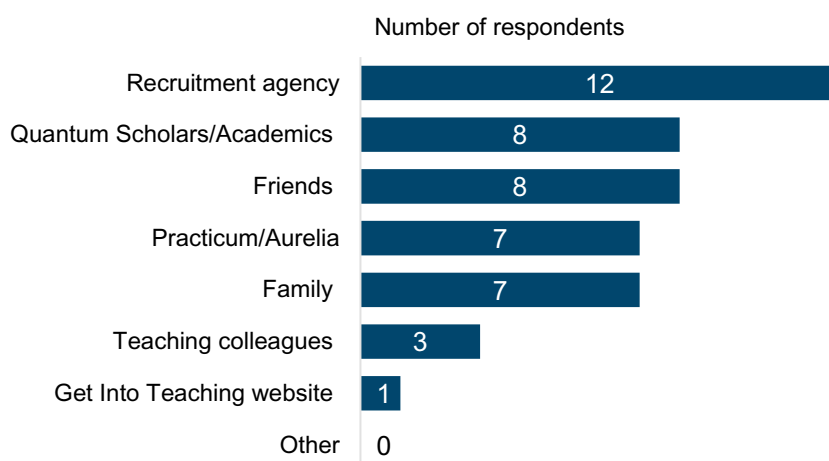
(International teacher, Quantum Network)

From the survey, the second most popular reason for applying was the availability of a teaching role, with eight respondents stating that there were more teaching jobs in England than in their home country. However, none of the survey respondents said that they applied to the programme, because a teaching role in England would pay better than the same role in their home country.

Experiences of the recruitment process

Survey respondents were asked to give their views on the recruitment process in terms of the sources of support they accessed, and how useful they were. As shown in Figure 15 below, the majority (12) of respondents used a recruitment agency as a form of support through the recruitment process. Over a third (eight) accessed support from the Quantum Network, and a third (seven) accessed support via the Practicum Network. Respondents also accessed support from family and/or friends (15).

Figure 15: Which of the following sources did you use throughout the recruitment process? (n=21)

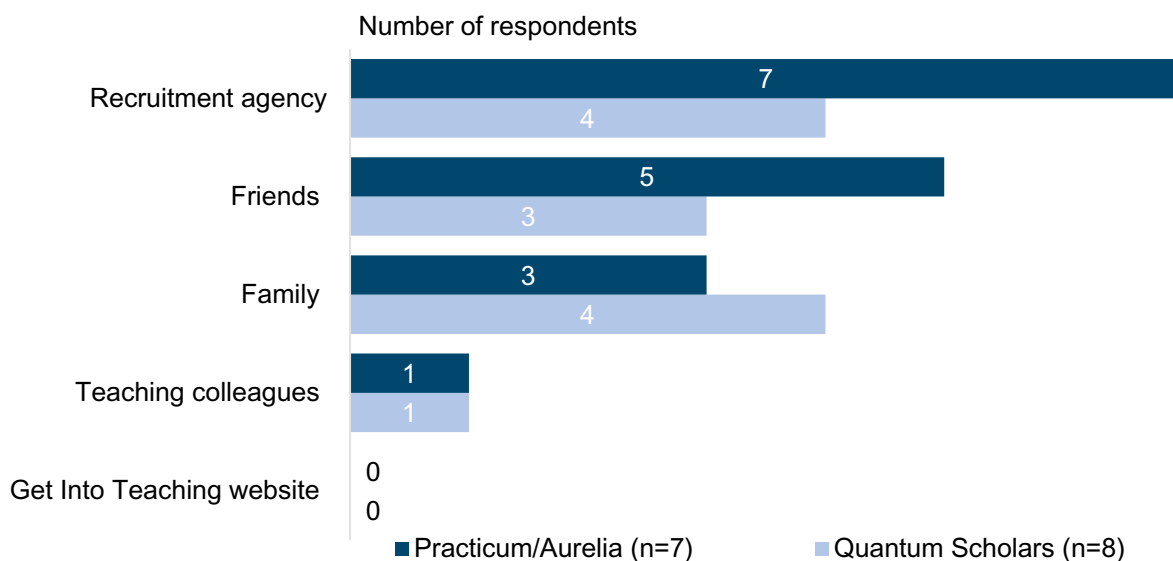


Over half (12) of the respondents used multiple sources of support to help them navigate the recruitment process, the majority of whom cited their network as the main source of support. Of those respondents who accessed more than one form of support, half (six) utilised Practicum/Aurelia as their main form of support and a third (four) reported Quantum as being their main source of support.

Figure 16 displays the breakdown of support sources accessed, split by the network respondents were affiliated to. Practicum-affiliated recruits were more likely to access additional support from a recruitment agency, although this should be interpreted carefully given that this finding reflects very small numbers of respondents. Five of the seven respondents affiliated to the Practicum Network also used a recruitment agency for

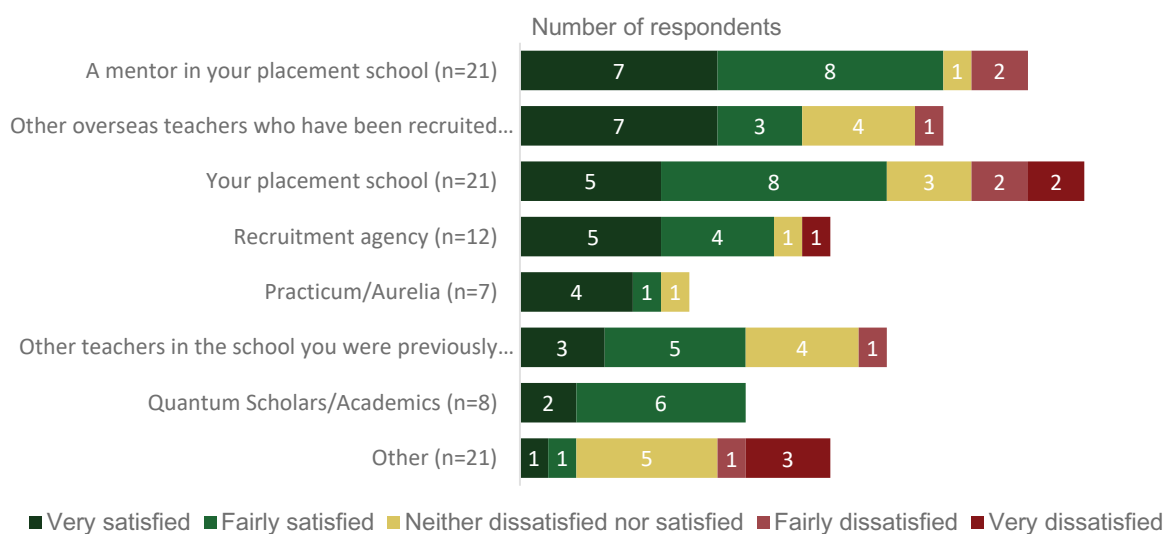
support, compared with two of the eight Quantum-affiliated recruits, who also utilised the help of a recruitment agency.

Figure 16: Which of the following sources did you use throughout the recruitment process? (Split by network)



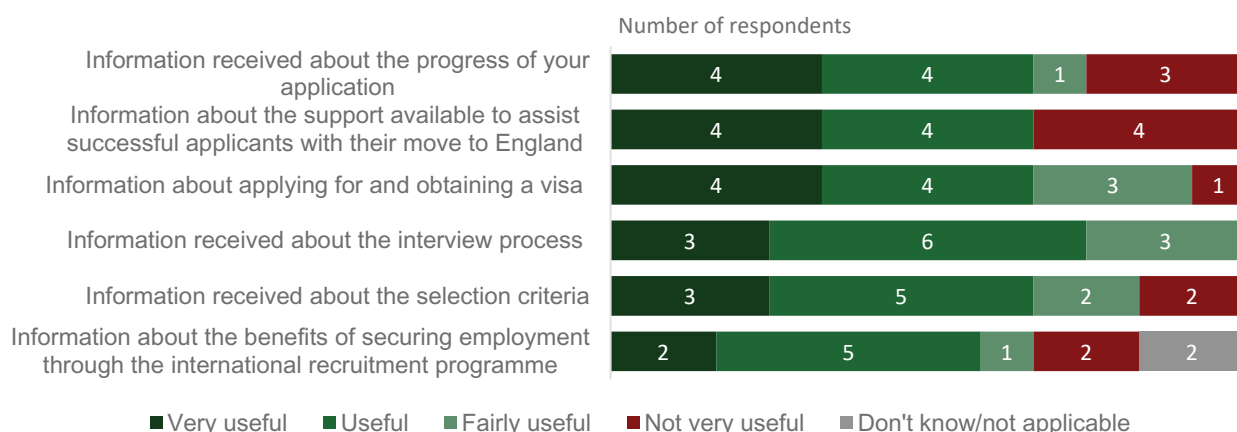
Of the 12 respondents who accessed support from a recruitment agency during the recruitment process, three quarters (nine) were either 'fairly satisfied' or 'very satisfied' with the level of support they received (see Figure 17). There was consensus among all five interviewees that using a recruitment agency made the process of seeking employment in England straightforward, and all five interviewees also reported that the application process was easy. All interviewees spoke positively about the recruitment agencies affiliated to the school-led networks, specifically the support they received throughout the recruitment process, which included regular updates and clear and concise information about the programme and the application process. Interviewees also valued recruitment agencies' efforts in responding to their questions in a timely manner.

Figure 17: In relation to your overall experience of the international recruitment programme, how satisfied or dissatisfied were you with the support received from the following? (n = variable³¹)



Those survey respondents who used a recruitment agency for support were asked how useful they found the various different aspects of support (see Figure 18).

Figure 18: How useful, if at all, was the information supplied by the recruitment agency about the recruitment process and placement? (n=12)



Information directly relating to the selection process and the formal visa application was found to be most useful by survey respondents, with ‘softer’ aspects (like information on moving to England and benefits of securing employment) rated as slightly less useful overall.

Despite this, three of the five interviewees had experienced difficulties with the visa application and reported this to be the most challenging aspect of the application process. All three interviewees described the process as time-consuming and difficult, as it required them to prepare supporting documents and “complete lots of forms”. One interviewee

³¹ Base size is variable as ‘not applicable’ responses have been removed from the analysis.

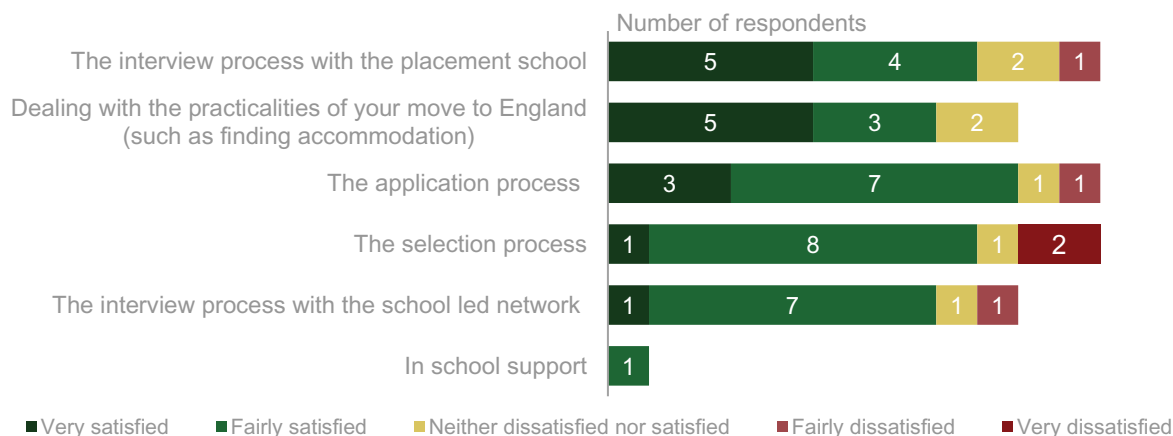
stated that they did not receive any financial support from the school or the Network and subsequently had to pay around \$1,600 to have their visa application processed. As noted by one interviewee below, they felt the application process was unclear and the guidance was open to interpretation. Information issued by the recruitment agency was felt by this interviewee to lack definitive guidance as to what was required of the interviewee. The other two interviewees who found the visa application process challenging felt that the recruitment agency had provided a sufficient amount of support.

“The visa application is not as clear in all aspects as one would hope it to be. If you have questions, there’s like no one that can answer them unless you want to pay people. I was like, ‘I’ll take a stab at this and hope that I’m interpreting their instructions correctly. They [recruitment agency] sent out some information that they had compiled by someone who specialises in visas or something like that. It had FAQs and some general instructions, ‘Do this then it will ask for this, this is what it wants.’ Yes, but at the same time, I’m not sure, because isn’t it, like, you can’t advise on visa stuff unless you’re a visa lawyer.”

(International teacher, Quantum network)

As well as rating the usefulness of information, survey respondents were asked to state their satisfaction with the support they received from the recruitment agency on certain aspects, such as the selection and interview process (see Figure 19).

Figure 19: How satisfied or dissatisfied were you with the support provided by the recruitment agency for the following aspects of recruitment and placement activity? (n=12)³²



Overall, satisfaction levels with the recruitment agencies were high (with only small numbers expressing dissatisfaction), particularly for aspects relating to the initial application process. One respondent also described themselves as 'fairly satisfied' with the in-school support provided by the recruitment agency (captured through the survey data as an 'other' response).

³² Base size is variable as 'not applicable' responses have been removed from the analysis.

Similarly, all interviewees reported a positive experience of the interview process. However, two said it would have been useful for the recruitment agency to provide more information about the school system in England, to allow them to better prepare for the interviews. For instance, both interviewees reported that they were puzzled when the interviewer referred to particular school terminology from England such as 'GCSE's' and 'sixth form' throughout the interview. This suggests that some applicants may require better assistance from recruitment agencies in the latter stages of their application, such as in preparing for interview. One interviewee said that additional support could take the form of an initial Skype interview, which would allow applicants to discuss issues relating to teaching in England, or allowing applicants to observe a lesson (through video conferencing or pre-recorded lessons).

Experience of the placement

Twelve survey respondents reported that they were either 'very' or 'fairly' satisfied with their placement, citing the support structures in place (particularly from colleagues at their placement school) as contributing to this satisfaction. One respondent stated:

"The school has a very supportive community. Training for teachers [was] of high quality. There were other colleagues that also went through the same process and they were a good supportive community to have around. Teaching within my specialism and teaching all year groups was a great opportunity. [There is] lots of room for professional development within the school."

However, five survey respondents expressed dissatisfaction with their placement school, often due to poor student behaviour and heavy teacher workload. These factors were also evident in interviewees' experiences of their placement school: three spoke about student behaviour in schools in England, with one describing student behaviour as poor. All three agreed that managing student behaviour was the most challenging aspect of their placement.

Two interviewees also highlighted how teaching methods and timetabling differed from their home countries. Both said it would have been useful had they been made more aware of some of the differences they could face at the application/interview stage. For instance, one interviewee felt transparency was needed in terms of timetabling and teaching commitments, since they had been surprised to find that they would be responsible for teaching more classes than they had envisaged. The same interviewee expressed concern that the school had required them to teach subjects they were not qualified to teach, and did not feel confident about. Another interviewee noted that it would be useful if more resources and training were provided to help recruits adapt better into schools in England, including information on pupil behaviour policies. This interviewee also suggested that video tutorials (with an explanation of Ofsted and attainment testing at Key Stage 4 and 5) would also have been useful.

“Here in [home country] I teach two subjects, physics and chemistry. I teach the same class three times, the same three physics classes, then I teach two classes of chemistry, exact same class. I get over there and suddenly they tell me I’m teaching eight different classes including biology and maths, which I am not qualified to teach. I have never taught those, it was like drinking from a fire hose.”

(International teacher, Practicum Network)

“Had I known how the school was, if we had been able to see what a teaching day in the school was like before we started teaching that would have provided a good insight. It would have changed how well it started. I think things are going good now, but before Christmas things were just very critical, just having to learn how to adapt, how everything is. We weren’t offered a lot of support with anything, it was just expected that we would know what all these things are, but we truthfully had no clue.”

(International teacher, Quantum Network)

There were distinct differences in the support offered to interviewees, based on the networks to which placement schools were affiliated. Findings reported earlier in the chapter on interviews with school leaders³³ show that schools affiliated to the Practicum Network were more likely to rely on the recruitment agency to provide ongoing support to their international teachers, while schools affiliated to the Quantum Network were more likely to provide ongoing support to international teachers themselves. This finding is reinforced by the interviews with teachers placed through the programme. All interviewees who were recruited through the Quantum Network (three) indicated that their school was the sole provider of the support they received, with interviewees being assigned department mentors to help them integrate. They also spoke positively about the support they received from these mentors (normally other teachers within the school) as they particularly valued the opportunity to meet regularly with an experienced colleague.

“Both my mentors have been really good, the staff [have] been really good. I don’t have to take the bus every morning, they give me a lift to and from [school]. They help me out with any problems, it’s just very supportive.”

(International teacher, Quantum Network)

The interviewee who was placed in a school affiliated to the Practicum Network was provided with ongoing support by the recruitment agency. This included access to a support network of international teachers recruited through the programme. As part of this, international teachers recruited through the programme met regularly to share good practice and to socialise. The interviewee spoke highly of this support, because it helped

³³ See Chapter 4: Findings from interviews with school senior leaders, Support for overseas teachers.

to alleviate some of the isolation associated with moving to a new country and job, and also helped them adapt to their new work and social environment.

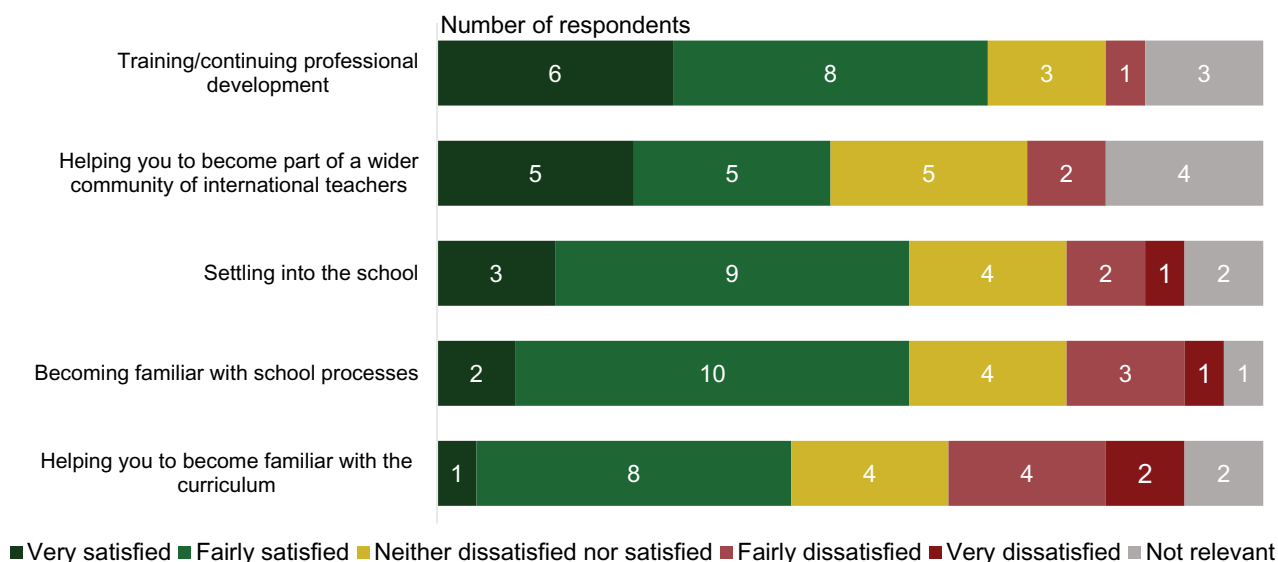
“Having other people there to talk to help[ed] with settling into a new country and alleviated any concerns. It’s very helpful to be involved within a community and not just be stranded on your own. Coming from where I was, if you’re all by yourself, it can be very difficult, not really knowing your way. Having Canadians or having anyone, really, that is going through the same situation helps with the process.”

(International teacher, Practicum Network)

Survey respondents were also asked to state their level of satisfaction with various types of support provided by the placement school (see

Figure 20). These factors included how supportive the school was in helping the respondent settle into the school, and how helpful the school was in helping the respondent integrate into the wider community of international teachers. Satisfaction levels were highest for the training and CPD offered to respondents by their placement school, with two thirds of respondents reporting that they were ‘very’ (six) or ‘fairly’ satisfied (eight). Of those who reported satisfaction with the training offered by their placement school, five attended training related to school teaching practices such as around behaviour management. Five respondents also attended a training course intended to consolidate their subject-specific knowledge, in line with the curriculum.

Figure 20: How satisfied or dissatisfied were you with the support provided by the school on the following aspects of your placement at the school? (n=21)



Just over half of survey respondents were satisfied with the support provided by the school in terms of settling into the school, and becoming familiar with school processes (12 respondents reporting satisfaction for each). However, some were dissatisfied with the level of support provided by the school to support respondents beyond ways of working

within the school, for example in terms of familiarising themselves with the curriculum (six were dissatisfied), or helping them to become part of a wider community of international teachers (two were dissatisfied). There was also some dissatisfaction with the support provided by the school to help respondents become familiar with administration duties.

Of those who participated in the survey, 17 applied for QTS, with 16 stating that they found the application process easy³⁴. Only one respondent found the process 'fairly difficult', due to issues surrounding the recognition of their teaching qualification within the online application system. Eighteen respondents were also required to apply for a visa before coming to England to teach, with over half (10) finding the level of support they received throughout the application process satisfactory. However, five respondents were 'fairly dissatisfied' with the support provided to them during the process, reflecting the interview findings discussed earlier around difficulties with visa applications.

Only six respondents had attended an acclimatisation course designed to familiarise them with English teaching practices, and half of these were dissatisfied with the quality of the course. Only one respondent was satisfied with the course, with two respondents stating that they were neither satisfied nor dissatisfied. Of the 15 respondents who did not attend a course, 12 stated that during the recruitment process or throughout the duration of their school placement, they had received information on safeguarding. The same number of respondents had received information about behaviour management, while 11 respondents had received information relating to OFSTED.

Outcomes of the STEM International Recruitment programme

The majority (12) of survey respondents stated that they were not likely to have pursued a teaching career in England had it not been for the programme. Five respondents would likely have still considered teaching in England regardless of the programme (but only one of these said it was 'very likely'). This suggests that the programme has potential in terms of additionality, i.e. encouraging teachers to come to England who would not otherwise have done so.

Most survey respondents (10) felt more positive about their teaching career as a result of participating in the programme (with four of these feeling 'a lot' more positive), while only three respondents felt a little less positive. Of the remaining eight, most (six) reported no change in their feelings towards their career and two were unsure.

Of the 10 respondents who felt more positive about their career in teaching, seven stated that the programme had been 'fairly influential' on their positive perception (and only one said the programme had had no influence at all). Of the three respondents who felt more

³⁴ Two questions in the survey: "Did you apply for Qualified Teacher Status in England?" For those that did, the follow-up question was: "How easy or difficult did you find the process of applying for Qualified Teacher Status?"

negative about their teaching career, only one stated that the programme had been 'fairly influential' on their negative perception. The remaining two said the programme had been of limited influence on their negative perceptions, indicating that their experiences of the programme had not affected their general views on teaching as a career choice.

The survey findings indicate that almost half (10) of the respondents were satisfied with the programme overall, with three respondents stating that they were 'very satisfied'. Respondents were asked to specify why they were satisfied with the programme and, for most, satisfaction hinged around the usefulness of the support structures put in place by recruitment agencies.

One interviewee explained how the process of coming to teach in England was made much easier by the agency.

"The transition of coming from [home country] to England was a smooth one. I was able to secure a job, obtain a visa and accommodation with ease, which I don't think would have been very easy otherwise without an agency. They were very supportive and connected us with other teachers who used the same agency and went through the same process. We received training to help us settle into [the school location] and give us opportunities to explore [the area]. This would not have been possible without the agency."

(International teacher, Quantum Network)

The opportunity to experience something different was also highlighted by interviewees as a reason for satisfaction with the programme, as they enjoyed the opportunity to teach abroad with support:

"I think it helps to provide opportunities, information and peace of mind for those looking to leave home and try a new experience."

(International teacher, Practicum Network)

Three survey respondents were dissatisfied with the programme, citing a perceived lack of clarity in terms of what was required of them as the key issue. All three dissatisfied respondents reported feeling "thrown in at the deep end" from the first day. Two respondents also voiced their dissatisfaction at feeling as though they had not been given clear information regarding refundable expenses and being left out of pocket for long periods of time.

Three of the five interviewees also reported less positive experiences of the programme. This was largely due to these interviewees feeling that there were some disparities between the position advertised and their actual experience at their placement school. One interviewee noted that issues such as pupil behaviour, workload and management expectations were key factors in contributing to their disappointment in the programme. All three interviewees agreed that if they were made aware of these differences at the

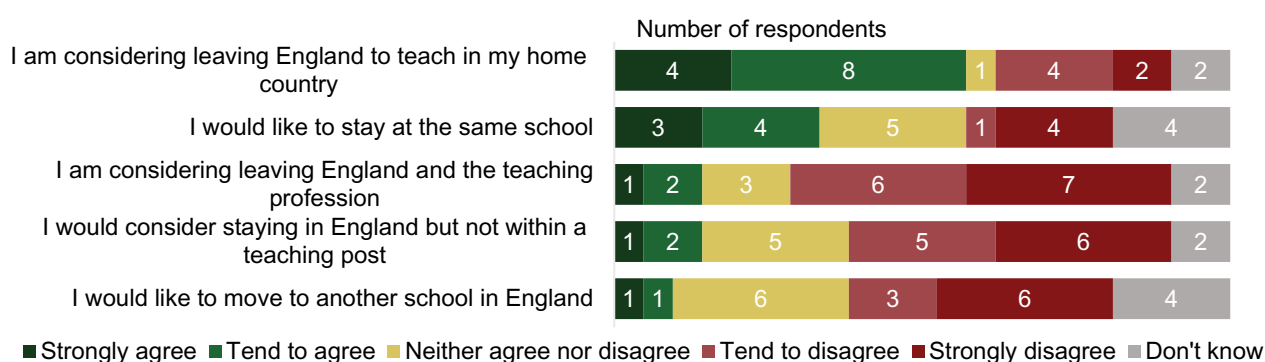
application stage or were provided with training, specifically on student behaviour and classroom management, then their experiences may have been different.

“I think, in some ways, it’s definitely not been what I expected... the recruitment and interview and all that was basically, yes, what I expected. Teaching here has been an adventure in figuring out what’s going on.”

(International teacher, Quantum network)

Figure 21 shows that of those teachers that took part in the survey, 12 were considering leaving England to teach in their home country, suggesting that low retention could limit the longer-term impact of the programme. Seven survey respondents wanted to stay at their current placement school, two wanted to move to another school in England, and three were considering leaving the teaching profession altogether (although the findings discussed above suggest this does not seem to be associated with dissatisfaction with the programme).

Figure 21: Do you agree or disagree with the following statements about your future teaching plans? (n=21)



Findings from the interviews showed that three (of the five interviewed) teachers had left the programme at the time of the interview (one did not take the position offered to them, another left part-way through the year and the third left at the end of the academic year), and were teaching in their home countries. Two of the respondents who left the programme valued aspects of their teaching experience in England, but both stated that they did not have any plans to teach abroad in the future. The two respondents who indicated that the programme had met all their expectations wished to continue teaching in a school in England. One of them said they would relish the opportunity to continue to work at their placement school and would consider applying for British citizenship, if they were able to work towards a leadership role. The other respondent also said they would like to continue to work for their placement school. However, they also said that they planned to resign from their current role and would reapply for the same role, so they would then be employed directly by the school. By doing so, they would be entitled to receive full employee benefits and would avoid paying monthly agency fees.

Only one survey respondent stated that they would be critical of the STEM International Recruitment programme if asked, while 11 respondents would speak highly of their experiences (four without being asked) and eight would speak neutrally about it.

Overall, these findings imply that – while the majority of the survey respondents valued their experience on the programme – this does not inherently mean they will remain in England (as may be expected given most had applied in order to have the experience of teaching abroad).

5. Spain's Visiting Teachers Programme Findings

5.1. Introduction

This chapter presents findings from evaluation activities undertaken for Spain's Visiting Teachers Programme (SVTP) between December 2017 and March 2018. The aim of SVTP is to increase the supply of MFL teachers in schools in England. Run in partnership with Spain's Ministry of Education and Vocational Training, this programme provides schools in England with access to a pool of qualified teachers from Spain. All these teachers are able to teach Spanish as a foreign language and some can also teach French and/or German. Those placed in schools are provided with acclimatisation support in order to assist with the transition to teaching in England. Note that these findings are from the pilot year of the programme, meaning the total number of recruits was small and the programme was still in development.³⁵

The findings include interviews with four senior leaders from schools who employed teachers recruited through SVTP.

5.2. Key messages

Motivations

- The main motivation for the interviewees' schools to recruit international teachers was to help schools to fill Spanish teacher vacancies. All interviewees recognised that they had found it difficult to recruit Spanish teachers from the pool of Spanish teachers in England. Interviewees recognised the potential benefits of employing teachers internationally, as they provide pupils with a greater depth of knowledge and awareness of other cultures. However, this was viewed as a last resort, due to concerns about recruiting internationally.

Recruitment of international teachers

- Interviewees reported largely positive experiences of the recruitment processes, including the use of the online portal and interviewing of potential candidates, and felt that these worked well.

³⁵ Note that a number of changes have been made since the pilot year. These include: contracting out delivery of recruitment and placement services to a specialist recruitment agency; revising the assessment criteria used when selecting candidates; moving forward the timing of the assessment and interview centre so that candidate details become available to schools during the spring term; and strengthening the acclimatisation support offered to teachers placed in schools in England. These changes to the acclimatisation package have included increased support in re-locating to England, a greater emphasis on behaviour management and MFL pedagogy during training, and a larger focus on the role of in-school mentors.

- The main reported drawbacks to the recruitment process included lack of information about prospective candidates, and the amount of time and resources needed to support international teachers.

Impact of the programme

- The interviewees recognised that, because teachers had only been in post for a short period of time, it was too early to ascertain the overall impact international teachers had on their schools. They felt that the recruited teachers had the potential to impact positively on schools and pupils in a number of ways.
- However, interviewees noted the high drop-out rate and risk of international teachers struggling to adjust to living and working in England, and the additional strain this placed on schools to support them when compared with teachers recruited domestically. Three interviewees expressed their intention to continue to recruit teachers from overseas, and provided two key recommendations for the programme that could reduce the issues they had experienced:
 - additional support and guidance should be provided to teachers about getting 'set up' to live and work in England as part of their induction; and
 - the recruitment process should start earlier in the academic year, to allow a greater lead-in time for schools to complete that process. This would also allow additional time for international teachers to organise and complete their move to England before beginning their teaching role.

5.3. Methodology

This chapter outlines the key findings from interviews with four senior leaders from schools employing teachers recruited through SVTP. Additional methodological information can be found in Appendix 1.

5.4. Findings from semi-structured interviews with school senior leaders

All of the interviewees had direct responsibility for the recruitment of international teachers through the programme for their respective schools. Interviewees undertook similar roles in managing the selection and recruitment process for their schools. Two interviewees' schools recruited two Spanish teachers through the programme, while the other two schools recruited one teacher each through the programme.

Motivations for recruiting teachers internationally

Interviewees said they were motivated to recruit international teachers through SVTP to help schools to fill Spanish teacher vacancies. All interviewees recognised that they had found it difficult to recruit Spanish teachers from the pool of Spanish teachers in England.

One interviewee reported that they were introducing Spanish as a new MFL subject in their school, while another reported that they were expanding their school's Spanish provision. As noted in the quote below, all interviewees stated that their schools had advertised positions nationally, but had struggled to recruit Spanish teachers, and MFL teachers more broadly, from England.

“We'd had difficulties recruiting, in particular, languages teachers. We became aware of the visiting teacher programme. We had tried to appoint a Spanish teacher previously and had not been successful, so decided to go down that [international] route.”

(Assistant Headteacher)

Two of the interviewees noted that they (or a colleague) had been involved in SVTP from its early stages, and were involved in the consultation and development of the programme, and/or the initial recruitment round in Spain. One interviewee said it was due to this involvement that they had chosen to utilise this recruitment route, and they did not have any concerns about recruiting international teachers, as they felt that the assessment and interviewing process was robust.

“If I hadn't gone over [to Spain] and I hadn't been involved in the process [of recruitment], I would have had to consider [...] the quality assurance, not being able to interview candidates prior to them coming over, all the risks associated with that. I've been involved with the programme and with how robust it is, in terms of making sure all the recruitment processes are followed through, that gave me that reassurance, which I was then able to share with other colleagues.”

(Executive Principal)

“Although the DfE reassured us that they had been out, vetted, and watched these teachers teach, and only selected appropriate people ... you're having to have faith in other people and their ability to decide whether or not someone is going to be successful within the UK. I would question, actually, from my experience, whether that has been done to a high enough standard.”

(Headteacher)

Three of the four interviewees articulated concerns over recruiting teachers through any international recruitment channels. These concerns reflected those reported by stakeholders for the STEM International Recruitment programme, and included: candidates' potential lack of knowledge of the curriculum and the English educational system; cultural and language differences; differences in pedagogical practice and pastoral care; larger class sizes than other countries; and different attitudes and behaviour of pupils in England. One interviewee noted that recruiting teachers internationally was 'a last resort' after not being able to successfully recruit Spanish teachers from within the UK.

“My absolute preferred choice would be teachers who are trained and experienced within the UK education system, because they understand the specification, the curriculum, culturally, they are aware of how it works in the UK, their familiarity with the school system ... Recruiting from overseas actually is a last resort.”

(Headteacher)

Despite identifying a number of concerns about the recruitment of international teachers, all interviewees voiced a number of benefits in doing so. Similarly to responses from stakeholders for the STEM International Recruitment programme, they recognised the importance of employing teachers from diverse backgrounds, representing varied cultures and providing pupils with a greater depth of knowledge and awareness of other cultures.

“Actually having people from Spain, coming from that country, having an understanding of the culture and the language, and those experiences that they could bring to the area [where we’re located]. The benefit to working with and recruiting international teachers is the fact that it helps with our whole, ‘There’s a wider world out there and there are opportunities beyond [town name],’ ... opening their [pupils’] minds to other parts of the world and people from different countries and cultures is a big part of the drive.”

(Director of ITT and Professional Learning)

Recruitment of international teachers

Three of the four interviewees reported a similar structure to the SVTP recruitment process, which included: reviewing candidate information using the portal, shortlisting, conducting interviews via video conferencing software and, finally, candidate selection and appointment. The fourth interviewee did not need to utilise the portal, as they were involved in the initial recruitment round in Spain itself, so they simply ‘recruited from the source’.

Interviewees reported quite different *experiences* of the recruitment process. Responses varied based on interviewees’ perceptions of the amount and quality of the information about candidates; the calibre of the candidates themselves; the ease of use of the portal and the support and information received from DfE. One interviewee said that the amount of information available about the candidates via the portal was ‘impressive’. They described how they were able to access videos of candidates teaching lessons, which was helpful in getting a ‘flavour’ of the candidates and supported selection of the candidates shortlisted to interview.

“One of the things that impressed us was just the sheer volume and amount of information that we were getting about the candidates. We weren’t expecting there to be videos of them actually teaching in Spain and in their classroom and

you could actually see those recorded lessons. So, you could see a bit of the flavour for that person as a teacher ... the background information that we had [about] the candidates and the fact that some of them had been in leadership positions, and the various things they'd done was really helpful to us in terms of building up a picture of that candidate and what they were like."

(Director of ITT and Professional Learning)

In contrast, one interviewee reported that the online portal was 'clunky' and not user-friendly, and that candidates' CVs were the only information available from which to select potential teachers.

"I don't remember it being very user-friendly ... I remember it being a slightly awkward format to actually open CVs and look at them. It was all a little bit bitty. I think you had to access them through a spreadsheet. I think it was a bit clunky. ... Unless you see people actually interacting with children, you can't do it. ... I felt that collecting people's CVs, to then broker out to schools in the UK; that is not, I think, acceptable. It's not fair on people here in this country."

(Headteacher)

One of the interviewees who had been involved in the early stages of the programme noted that they had received feedback that the online portal did not always work as intended for the candidates, meaning some candidates were unable to upload a video of themselves teaching a lesson. This may explain why one interviewee felt that there was an impressive amount of information on the portal while another felt it was insufficient.

One interviewee summarised the recruitment process as challenging, especially selecting and interviewing individuals with limited information and no opportunity to observe them teaching and interacting with pupils. Below the interviewee reflected on the difficulty of assessing candidates' suitability to teach in England.

"You're interviewing over Skype, you have no ability to actually watch these people, potential candidates, teaching in classrooms with your students. Therefore, it feels like a risky appointment. I certainly wouldn't ever wish to appoint somebody on a permanent contract in that way, absolutely no way. You're having to have faith in other people and their ability to decide whether or not someone is going to be successful within the UK."

(Headteacher)

Three of the four interviewees commented that the timescales for recruitment, and lead-in time for international teachers to arrive, settle and be ready to begin teaching in September were too tight.

“I think it [the recruitment process] was too late. We were in a position last year that we were struggling to recruit. We probably wouldn't have vacancies in April or May this year, so we'd be looking to go out between now and Easter to recruit, so I think earlier would be better. I think it would also give the visiting teachers a longer lead time to get their house in order.”

(Assistant Headteacher)

All four interviewees had successfully recruited for all vacancies; one interviewee said that they had recruited two teachers despite only initially seeking one. Across the four interviewees' schools, six teachers were recruited. Of those six, three remained in post at the time of interview, although two of these had already notified the school that they would be leaving at the end of the school year, and three had already left their posts. Of the two who notified their intention to leave at the end of the school year, both planned to return to Spain. One teacher had brought their family to the UK, but their spouse had struggled to adapt to life in England and had already returned to Spain. The teacher therefore wished to terminate their contract and return to Spain to re-join their family. For the other interviewee, the reason was not specified.

Of those who had already left, all three did so after one term (September - Christmas). One who had left family behind found it too difficult to be away and chose to return. The second initially left due to stress, and subsequently took up a sixth form teaching position in the UK, and the third left due to severe stress. All interviewees whose teachers had left or planned to leave, particularly for those who left due to stress, said that, despite receiving additional support and mentoring, these teachers had struggled to cope with the transition to teaching in England. This particularly related to pupil behaviour management, and also in adjusting to living in the UK, away from family and friends.

“They were struck by the differences of behaviour in the classroom, but they were grateful for the support they had and their mentors. I think they found it very difficult. In some ways it depends on the individual person, but I think they've both had issues with being homesick. Both of them are leaving at the end of the year. ”

(Assistant Headteacher)

“[They] came to see me the last week of term, very upset, very distressed, saying about [their] health. I said, 'Just go at Christmas, it's fine. Break the contract. Don't worry about it.' That was, by far, the best solution for everybody. I don't want to put somebody through a process where it is detrimental to their health. It was the best solution for the students, the school, and for [them] as an individual.”

(Headteacher)

Support for international teachers

Only one of the four interviewees' schools had previous experience of recruiting international teachers. However, from the outset, all four interviewees felt that employing international teachers would require their schools to provide far more support than if they were to have recruited domestically. All schools provided teachers with access to their own 'in-house' induction and/or NQT programmes, as well as ongoing CPD opportunities, and a subject-based mentor for teaching and pastoral support.

"As a matter of course, [the school] have a new staff induction programme ... we were also aware that they would need additional support in terms of how to assess according to UK systems ... the examination systems... what they needed to do. Also, the candidates came over to see the school before they took up the offer. That was useful to see them face-to-face, for them to get to see the school, to discuss any concerns."

(Executive Principal)

"We expected to have to provide a lot of support. Both our teachers were given a mentor, a senior member of staff that met with them for one hour each week. We mirrored our NQT programme. That senior member of staff would monitor their teaching and learning, their marking and making sure they're meeting our teaching standards. It was also an opportunity for the visiting teachers to ask questions and, by and large, it's worked really well."

(Assistant Headteacher)

Despite this support, all four interviewees expressed concern for the personal welfare of their visiting teachers, their ability to adapt to life and teaching in England, both from a teaching and personal perspective. Interviewees noted that the teachers struggled being away from family and friends and integrating into society. There were also issues with managing some of the practical elements of getting 'set up' to live and work in the UK such as finding and securing accommodation, opening bank accounts, navigating UK systems such as council tax, national insurance, registering with a GP, and enrolling their children in a school.

"They have found it very difficult to integrate into society, so things like bank accounts, housing, Council Tax, all of these kinds of things, they found it difficult to do ... They had quite a lot of personal issues, both of our visiting teachers, in terms of settling ... We have a human resources department, but we don't have a mini Citizens Advice Bureau in the school ... We certainly try to support them with housing and finding rented accommodation in the local area, but beyond putting them in touch with people who are renting houses in the local area, we wouldn't get involved beyond that."

(Assistant Headteacher)

One interviewee highlighted some of the specific challenges international teachers may face in relation to securing accommodation and enrolling children in school, and advised that schools be aware and ready to support international teachers with these.

“One of the key things for them was finding accommodation and not knowing where to look for accommodation or what would be a good area for them to move into. We provided all that information, but it would be useful for schools to be prepared for that, in terms of new candidates coming over, they may require support. If they’re renting accommodation, they’ll need references. Where we did have to go for an agreement from the governing body was our candidate travelling over with [their] family. Some candidates expected that your school would take on their children, but ... we have an admissions code and everything else to follow.”

(Executive Principal)

One interviewee whose school had previous experience of recruiting teachers from Canada³⁶ described their approach to the induction of international teachers, which included direct support in addressing some of the more practical elements of relocating to the UK.

“Something that the two colleagues that we took on found quite challenging is that the [DfE] induction covered the English education system but that there wasn’t as much on setting themselves up to live in the UK. So, on one of the [school] induction days, colleagues actually took them around and got them registered at a doctor, got them registered at the bank, and did all of those kinds of things. The two colleagues didn’t feel they had lots of support with that and we had to do a lot of that with them.”

(Director of ITT and Professional Learning)

Interviewees provided mixed responses about the programme induction and support provided by DfE for international teachers. Two interviewees commented positively, stating that teachers had been well supported throughout and that the information and communication was done ‘really well’.

“[Overall] they’ve had a very strong induction process and support process. This week or the week after half term, they’re going out on another training session. The candidates we had have been provided with a lot of support from the DfE, in terms of systems and processes, and developing their pedagogy in practice, so that’s been useful. Also, it was about supporting them with the induction in our own school, about our own ways.”

³⁶ Note that this wasn’t through the STEM International Recruitment programme.

(Executive Principal)

“There were frequent reminders about the training they were to receive when they arrived [in England]. There was [a] training book for them, an introduction to the English education system and various bits and pieces, and all of that was communicated really well. We knew where that [training] was happening, we knew who was delivering that, we were impressed with that information.”

(Director of ITT and Professional Learning)

In contrast, one interviewee stated that the provided induction had not prepared the teacher sufficiently to teach in England in terms of their understanding of the systems, processes, curriculum, pedagogies or pastoral care.

“Even though the DfE have an induction period before the start ... I worry that people are being put in schools under prepared. ... they are put in a teaching role where they have little understanding of the British system, little understanding of the curriculum involved, and little cultural awareness of how our systems work. [For example] in terms of the pastoral care that teachers give children in the UK, that is very, very different to how it is on the continent. ... This particular teacher really struggled with the fundamental pedagogies that are part of a normal teacher’s toolkit that they use every day, and seemed at a loss of how to teach the children so they made good progress and learnt.”

(Headteacher)

The final interviewee was unaware that teachers attended any acclimatisation course/induction, but stated that both teachers were invited to and undertook CPD provided by DfE (but they did not know the form or content of this). Similarly, despite speaking positively about the communication received, another interviewee said that they would have liked to have had more information about the *content* of the DfE induction/training, in order to support their own induction content.

“One of the key things that I was quite keen to get hold of was, what exactly would be covered at the induction when they arrived [...] It would’ve been good to have seen a programme of what was to be done, so we could then say, ‘Okay, well, they’ve had some of this, we’ll need to add to it with this or we’ll need to do this’.”

(Director of ITT and Professional Learning)

Impacts of the programme

Interviewees recognised that teachers (both those who remained in post and those who had already left) had only been in post for a short period of time and that it was too early to ascertain the overall impact of international teachers on their schools. However, despite

both of their school's SVTP teachers notifying their intentions to leave after one academic year, one interviewee spoke positively about their experience with the programme, and the impact that the two teachers had had on their pupils, both in terms of classroom culture and attainment.

“When I've observed the teachers, my impression is that Spanish classrooms are more orderly, less discussion and talking in the room. That's something our Spanish visiting teachers had to get to grips with, it's more democratic [in England]. The kids are allowed more licence to talk. Bringing some of that [Spanish culture] into our classrooms has helped our students as well, [in terms of] the discipline.”

(Assistant Headteacher)

In particular, this interviewee highlighted the impact of international teachers on the most able, older pupils. As fluent, native speakers, the international teachers were able to stretch pupils further than non-native teachers.

“One of the things that's great is, because they're fluent, they're highly qualified and we get them working with some of our A Level students, Year 13, who are about to go off to university. Sometimes we struggle to recruit teachers to be able to engage in languages at that high level, so although they haven't been teaching those groups, we've had them working with those students on an ad-hoc basis. ... I think in particular with some of our examination groups and with some of our most able students, because those teachers have really been able to push the most able Spanish speakers to stretch themselves and engage with the curriculum at a much higher level.”

(Assistant Headteacher)

In contrast, one interviewee reported that they had had a particularly negative experience with the programme, which resulted in additional workload for the school and missed learning for pupils.

“[It's] really disappointing, because, ideally, you'd have a great teacher who would then stay here and flourish, do really well. It caused a great deal of additional workload for other leaders across the school, in order to support [the teacher]. We have lost a term's learning for those classes who had [them] as their MFL teacher.”

(Headteacher)

In addition, this interviewee commented on the negative impact that this teacher had on pupils and the school.

“[They] had [Year 7] classes, teaching children who are new to the secondary school, who are bright, eager, and enthusiastic, and within half a term had lost that drive, buzz, and enthusiasm. We have a gap again. We are filling by hook and by crook, and it is not ideal because I now have unqualified members of staff who are plugging the gap as unqualified teachers. I have a head of department who now is teaching, pretty much, every single period during the week. It is not ideal.”

(Headteacher)

Overall experience and plans for the future

Overall, three of the four interviewees reported a positive experience of the programme and stated that their school would continue to recruit teachers from overseas through the programme. These interviewees offered two main suggestions for how the programme might be improved, involving both the school and DfE. They felt that:

- additional support and guidance should be provided to teachers about getting ‘set up’ to live and work in the UK as part of their induction; and
- the recruitment process should start earlier in the academic year, to allow a greater lead-in time for schools to complete the recruitment process.

This latter point would also allow additional time for international teachers to organise and complete their move to the UK before beginning their teaching role.

“I think [there is a need for] a slightly more in-depth induction programme when they first join us, to bring them up to speed quicker. ... I think we’d look to provide more support with the social things, housing, bank accounts, that type of stuff. I’m not sure what that would look like, but it’s something we’d need to address in the future.”

(Assistant Headteacher)

In addition, all interviewees highlighted that the difference between Spanish and English pupils, with regards to behaviour, proved to be a barrier to successful teaching, even for experienced international teachers. As such, one interviewee noted that international teachers may benefit from specific training in relation to classroom and behaviour management.

“How to actually deal with some of those youngsters, I think they found that particularly hard. I think that’s something that we would need to think much more carefully about, more bespoke training for international colleagues about how to deal with the behaviour of youngsters here compared to their experiences of youngsters in Spain.”

(Director of ITT and Professional Learning)

6. Undergraduate Opt-in QTS findings

6.1. Introduction

The undergraduate opt-in QTS programme³⁷ allows undergraduates to opt-in to an undergraduate initial teacher training pathway, partway through their degree course, commonly in year two or three, depending on the length of their degree. Successful students graduate with both a degree in their subject and the recommendation for Qualified Teacher Status (QTS). The main objective of the programme is to increase the number of maths, physics, computing and MFL graduates pursuing teacher training, thereby increasing the number of these teachers in state schools in England.

There are three types of degrees with opt-in QTS, all of which focus on secondary school teaching: Bachelor of Arts (BA), Bachelor of Science (BSc) and Integrated Masters (MA) degrees. The opt-in QTS undergraduate route into teaching is marketed to students locally by the participating universities. Some of these universities offer taster sessions to undergraduates in the first or second years of degree programmes to provide an opportunity to experience teaching, prior to them making a firm commitment to pursue the opt-in QTS route into teaching in the third year of the degree programme. Schools provide the taster sessions and placements for students who pursue opt-in QTS. A £9,000 bursary is available to students who pursue the opt-in QTS route, which is payable in the year in which the QTS element of the course takes place. Students taking a four-year undergraduate opt-in route that leads to the award of QTS in addition to a Master's degree receive a £9,000 bursary in both the third and fourth year of their course. Successful students graduate with both a degree in their subject and the recommendation for QTS.

These findings include evidence from in-depth interviews with: eight representatives from universities offering opt-in QTS courses; the Head of Department in a school that had offered a training placement to an undergraduate opt-in QTS student; and two final-year undergraduate students who had undertaken opt-in degrees.

6.2. Key messages

The potential benefits for those involved in the programme were acknowledged by all stakeholders, namely that schools could benefit through addressing shortages of teachers in STEM and MFL subjects and that students could benefit by qualifying as teachers earlier once they have made the choice to pursue a teaching career. Key findings from the fieldwork with stakeholders and students on the opt-in QTS degrees programme are summarised below.

³⁷ Referred to as 'opt-in QTS programme' throughout.

Motivations

- The participating universities were primarily motivated to offer opt-in QTS degrees to improve student recruitment. Some universities were also motivated to participate as they could use existing strengths in courses to extend their Initial Teacher Training (ITT) offers and provide students with the opportunity both to make informed decisions about their careers through practical teaching experience, and to incorporate ITT into their undergraduate degree and qualify earlier.
- The opportunity to acquire a teaching qualification by the end of their degree was motivating for both opt-in QTS degree student interviewees. The opt-in QTS programme represented a faster route into teaching and the opt-in element of the degrees gave interviewees time to decide if they wanted to pursue a career in teaching.

Development of opt-in QTS courses

- Universities adapted existing ITT courses to develop opt-in QTS degree courses. By doing so, partners benefited from expanding their course offers while limiting the resource and work required.
- Challenges in developing opt-in QTS courses that were identified by participating universities included the time it took to validate degrees, incorporating ITT with existing subject degrees and incorporating the required hours for teaching experience with existing degree commitments.
- University interviewees identified the need for additional guidance from the DfE and a mutual understanding of the processes universities have to undertake to develop, validate and implement new degree programmes.

Recruitment of students for opt-in degrees

- Interviewees from participating universities offered a number of reasons for the low levels of interest in opt-in QTS degrees, including that: students were generally not interested in pursuing a career in teaching, the additional workload required to complete an opt-in degree,³⁸ and the financial incentive offered to students pursuing opt-in QTS degrees (which is not on a par with what students receive on the PGCE route). Despite this, they also discussed the benefits of receiving QTS recognition earlier than they would do if they pursued the PGCE route, which would be an incentive for some.
- To enhance the recruitment of students on opt-in degrees, two solutions were suggested by interviewees: to raise the awareness of opt-in QTS courses among the general student population, and marketing opt-in QTS degrees more prominently through UCAS.

³⁸ This finding is only relevant for those universities who require opt-in students to undertake opt-in QTS modules in addition to a full degree programme.

Delivery of opt-in QTS courses

- Although slight variations existed in the delivery of opt-in QTS programmes by universities, they all entailed similar additional components to the subject-specific content covered. Both opt-in QTS student interviewees spoke positively about the module although, for both interviewees, while placement activity was beneficial, it was suggested that placements could have been better organised to follow from delivery of theoretical content to maximise opportunities available to students to apply what they had learned in the classroom.

Support for opt-in QTS students

- The findings suggest that students may require specific support – such as through mentoring and developing practical teaching skills – given opt-in QTS students can qualify earlier than students training through other routes, to ensure they gain the most out of the opt-in programme.

Impact

- All interviewees from participating universities emphasised that it was too early to identify the long-term impact of the opt-in QTS programme. However, half of the interviewees stressed that if recruitment numbers increase, then the programme has the potential to have a positive impact on addressing teacher supply shortages in STEM and MFL subjects.
- Of the two opt-in QTS students who were interviewed, one had secured employment at the school in which they had undertaken their placement, while the other had decided not to pursue teaching and cited exposure to overworked teachers as influencing their decision to not pursue a teaching career. Further support in terms of strategies for managing workloads could therefore be beneficial to counter some of these concerns.

6.3. Methodology

This chapter outlines findings from semi-structured telephone interviews conducted with:

- eight representatives from six universities offering opt-in QTS degree courses³⁹;
- the Head of Department in a school that had offered a training placement to an undergraduate opt-in QTS student; and
- two final-year undergraduate students who had undertaken opt-in QTS degrees.

Additional methodological information can be found in Appendix 1.

³⁹ Of the eight respondents interviewed, four of the respective universities were delivering STEM opt-in QTS courses, two were delivering MFL opt-in QTS courses and one was delivering both STEM and MFL opt-in QTS courses

6.4. Findings from semi-structured interviews with universities

Roles relating to the programme

Of the eight universities that participated in the interviews, four were delivering STEM opt-in QTS degrees, two were delivering MFL opt-in QTS degrees, and one university was delivering both. Note that throughout this report interviewees are referred to by the courses their universities offered, rather than by their individual roles.

The eight interviewees occupied a range of roles within the universities that included Associate Deans, Heads of Department, Course Leaders and Heads of SCITT. Six of the eight interviewees had been involved in writing the bid to the DfE to apply for funding to develop and deliver opt-in courses, and all eight had contributed either to the design or delivery of the opt-in courses offered by their respective universities. The amount of time dedicated to opt-in QTS degrees varied by interviewee, and was dependent upon their level of seniority. For instance, Associate Deans reported heavy involvement in developing funding applications, whereas course leaders were more involved in the design and delivery of opt-in QTS courses. The amount of time interviewees dedicated to opt-in QTS courses was also dependent upon the number of students enrolled on these courses, as fewer students required a lower level of resource from those who were responsible for the delivery of those courses.

Motivations for applying to the programme

Seven university interviewees spoke about their motivations in terms of the shortage of teachers in STEM and MFL subjects and the role of opt-in QTS degrees in helping to meet this. One interviewee noted that the university was committed to supporting the recruitment of high-quality maths and science teachers. Another spoke about the benefit of offering opt-in QTS degree courses in encouraging students to think about pursuing a career in teaching early on in their studies, at a time where they may have not considered teaching as a career choice. One interviewee (whose university offered computing opt-in QTS) spoke about the lack of teachers in this specialist area, especially those with knowledge of programming; they felt offering an opt-in QTS degree course in computing may encourage more students to pursue teaching.

“We were aware that quite a lot of our own computer science students didn’t have an outlet within the university to become teachers. At one stage, we did run a computing PGCE. We had to close it in the end because there wasn’t a great deal of uptake for it and it wasn’t being cost-effective, so we thought we’d try and go down this route.”

(STEM Opt-in QTS provider)

Seven interviewees, both from universities who were delivering STEM opt-in QTS courses and those delivering MFL opt-in courses, felt that offering these degrees would help to

increase their student numbers. All three interviewees offering MFL opt-in courses noted that it was generally difficult to recruit students to MFL subject degrees, and it was hoped that the opt-in QTS programme would counter this trend, by attracting students who also had an interest in pursuing teaching, as well as undertaking an MFL degree course.

“The other reason is that we’re aware that it’s very difficult to recruit students to a Modern Foreign Languages programme, so having the opportunity of doing the opt-in route might increase the attractiveness of those programmes to potential applicants.”

(STEM Opt-in QTS provider)

Three of the five interviewees at universities delivering STEM opt-in QTS courses noted that the programme provided the opportunity to utilise the strengths and successes of current course programmes, to develop their university’s ITT offer. For example, one interviewee explained their motivation to offer opt-in QTS courses:

“It was because we had a strong undergraduate computing programme here, as part of the history of the university, way back to when it was a polytechnic.... We had strengths in those areas. We had strengths in initial teacher education, and we saw it as an opportunity to pilot and try and combine those two in this new venture.”

(STEM Opt-in QTS Provider)

Another interviewee said that they recognised the benefits of students experiencing teaching before making a commitment to pursue ITT. The practical experience of taster sessions allowed students to make informed choices about whether to pursue opt-in QTS. As such, one interviewee felt that by offering opt-in QTS courses they were able to target students who were more dedicated, less likely to drop out, and potentially more likely to pursue careers in teaching (with the added value of beginning to do so during their undergraduate degrees rather than waiting until they have graduated).

Two of the five universities delivering STEM opt-in QTS courses noted that being involved with the programme provided their universities with an opportunity to enhance and develop training programmes that will impact on their local communities. There was an assumption that by offering ITT, universities are increasing the number of people who go on to pursue teaching careers and may subsequently increase the supply of STEM teachers in their local area, by attracting students to pursue other ITT courses at the university once their undergraduate course had finished. It may be the case that increasing the supply of teachers locally was a particularly motivating factor for these universities as teacher shortages were prominent in their localities.

Other forms of ITT provision offered by universities

Seven interviewees stated that their universities offered other ITT provision, with most citing PGCE courses. Other ITT provision offered included postgraduate programmes, work with School-Centred Initial Teacher Training (SCITT) partners and professional development courses for teachers and schools. Five of the seven interviewees acknowledged that there was considerable overlap between opt-in QTS programmes and PGCE courses offered by universities. Thus, partners benefit from expanding their course offers while simultaneously limiting the additional work involved in doing so, as they can utilise existing resources in the development and delivery of opt-in QTS degrees.

Although the similarities between opt-in QTS and PGCE courses were recognised, interviewees noted three main areas where opt-in QTS degrees offered added value for students: less time was spent acquiring QTS (compared with the traditional PGCE route), less debt was associated with this route into teaching, and students were provided with time to decide if they would like to pursue a career in teaching.

Students who wish to pursue a teaching career normally have to wait until they graduate to apply for a further year-long PGCE course to gain QTS. However, opt-in QTS students would receive a recommendation for QTS at the end of their undergraduate degree. This is likely to result in opt-in QTS students entering teaching posts sooner than PGCE students. Although one interviewee recognised this as a benefit, they also said that opt-in QTS course students were not able to engage in elements such as creative writing and research, as on a PGCE route, which they also recognised as important. The opt-in routes require fewer years' training at university, meaning they were likely to be less in debt. Opt-in QTS degrees benefited both students who initially planned to pursue teaching and those who wished to explore teaching as a career option, but were yet undecided. As one interviewee noted, the opt-in QTS programme allowed universities to meet the needs of both groups of students.

“There are people [students] who [...] do not know what they're going to do. They wait until they've finished their degree and then may decide to go into teaching. However there are also people making decisions earlier on, and we have to compete with those demands and make sure that we can offer them an option to teach.”

(STEM Opt-in QTS Provider)

Programme development

Opt-in QTS courses were primarily developed by senior members of staff within the universities. Universities were awarded grants in three phases between 2015 and 2017 and many were in the early stages of delivery. Two of the eight interviewees spoke about the delays in getting opt-in QTS degrees validated by their respective universities. One university interviewee noted that they were still undergoing validation of their opt-in QTS

degree, which were due to be completed in Spring 2018⁴⁰. Another interviewee indicated that validation of their opt-in QTS degree took six months and said the process was both time-consuming and challenging. The quotation below, from an interviewee who was an Associate Head of a school within their university, demonstrates the processes universities have to undergo to develop and offer new degree programmes.

“An institution like a university has fairly rigorous and lengthy procedures that you have to go through to get a new programme on the books. It [the opt-in QTS programme] went through various committees. These things take a lot of time, a lot of person time. You have to write [...] specifications in a particular way, you have to attend meetings, and you have to respond to the feedback. I’m going to guess, there’s probably about eight different meetings it needs to go through before you can start recruiting.”

(STEM Opt-in QTS Provider)

Alongside lengthy validation challenges, over half the interviewees (five) raised other logistical and practical challenges in developing opt-in QTS degree programmes. These included:

- difficulties of incorporating a one-year full-time postgraduate degree in an undergraduate course;
- finding appropriate ways of combining ITT with subject degrees; and
- being compliant with the course terms (e.g. number of taught hours and ensuring the staff with the relevant skills are available to deliver the QTS modules).

Unlike other ITT programmes, opt-in QTS is an add-on to existing subject-specific undergraduate degrees, and it posed challenges for both STEM and MFL partners in this respect. Interviewees noted challenges for those designing MFL opt-in QTS programmes, particularly in ensuring mechanisms were in place to allow students to accumulate the specified number of teaching hours required for QTS. Timetabling sufficient teaching hours was particularly challenging as MFL students are also required to undertake a placement year abroad.

“One challenge was fitting in the number of hours of teaching experience that needed to be acquired in the four-year programme, particularly with students taking the year out to go abroad.”

(MFL Opt-in QTS Provider)

Interviewees described several strategies to overcome challenges in developing opt-in QTS programmes. Two interviewees noted that opt-in programmes had been primarily

⁴⁰ Note that the interviews took place in January 2018, so this would have been after they had taken place.

developed in subjects where courses already existed and materials could be adapted, to reduce the burden on staff and to avoid increased workloads. In order to be compliant to the QTS requirements in terms of the number of taught hours and the teaching experience required of participants, three interviewees said that particular attention was paid to timetabling of modules and placements. For these universities, interviewees noted that although they had attempted to put mechanisms in place to limit the numbers of hours students worked outside of semester time, inevitably opt-in students had a longer academic year than their peers. These interviewees also noted that this additional workload may have acted as a deterrent to students considering pursuing the opt-in route, and may be a reflection of the small numbers of students pursuing this option.

“We had to work around the time that was available within semesters, and then to shift placements into the summer beyond the normal teaching times of universities to make sure that students had the required number of days.”

(MFL Opt-in QTS Partner)

To overcome the challenges of finding appropriate methods of combining ITT with subject degrees, two providers reported that they had worked collaboratively with partners, schools and other university faculties and departments to ensure strengths were utilised when developing courses. For instance, one interviewee reported that they had benefited from a close working relationship between the Schools of Physics and Education to find appropriate ways of combining ITT with subject degrees. Another interviewee indicated that they drew on experts from partner schools to design the pedagogical content of courses. This reciprocal relationship between schools and universities was seen to be beneficial in developing the content and programme for opt-in QTS degrees.

“We [different departments within the university] come from quite different traditions, different backgrounds, so there was quite a lot of dialogue about us being able to get the best of both worlds, being able to get the degree completed, but also [incorporate] the opt-in QTS dimension.”

(STEM Opt-in QTS Partner)

Six university representative interviewees felt they would have benefited from further support from DfE. One interviewee noted that after they had received the grant, they were left to their own devices to develop and refine their programmes (bar the meetings hosted by DfE for opt-in QTS partners, which allowed partners to share their progress). Another interviewee said those meetings were useful, but they had not been maintained at the time of the interview, and they felt it would have been useful to keep this platform open for opt-in QTS partners. Despite the flexibility DfE had given to universities in developing opt-in QTS degrees, several interviewees said they would have preferred DfE to issue guidance on course structures.

“[What would be helpful is...] the Department actually coming to the universities themselves and saying, ‘Look, you’re doing one of these

programmes, here is a short guide on how to do this and how to manage this.”

(STEM Opt-in QTS Partner)

Two interviewees felt that both a mutual understanding of the environments universities work in and more realistic timeframes for developing and implementing opt-in QTS programmes were required. Both interviewees felt better communication between universities and DfE would have assisted in more effective development and implementation.

Programme marketing and recruitment

Seven interviewees reported using a variety of methods to recruit students to their opt-in QTS degrees, including flyers, social media, promotion via university websites and wider university events and open days. One interviewee’s university is yet to undertake marketing due to the opt-in programme not being formally validated.

Of those that had started marketing the opt-in degrees, all had marketed through their own websites and on the UCAS website. Two of the six universities marketed the courses at university open days. However, for most of the eight opt-in QTS courses, specific targeting of potential students was not undertaken, beyond those already mentioned. The rationale was that targeting prospective students would lead only to expressions of interest, many of which may not have materialised in actual applications; they presumed that students would apply for the degree based on the subject specific content (e.g. maths, physics, etc.). Therefore, marketing for six of the eight opt-in QTS courses was targeted at students in their first and/or second years of the degree, to prompt students to think about pursuing teaching as a career.

All participating university interviewees reported recruitment as challenging, resulting in low levels of interest and small numbers of students pursuing the opt-in route. As illustrated in the quotation below, one interviewee felt the low levels of interest and take-up of the opt-in course was largely due to recruiting from a small pool of existing students.

“I think the limitation of the programmes at the moment is they are opt-in. That means you have to have the student here for them to then go onto the programme. You’re recruiting directly from a pool. Your pool is reduced to the number of students you already have on the university campus.”

(STEM Opt-in QTS Partner)

Other interviewees also speculated on possible reasons for the low take-up of opt-in QTS. Two interviewees felt that the low levels of interest resulted from students not wanting to pursue a career in teaching.

“Even though we did quite a lot of marketing [for the opt-in QTS course], a lot of them didn’t see themselves and their career as teachers. If they had seen themselves as teachers, they would have come in and opted-in to it, because it was actually a quicker route than doing a PGCE.”

(STEM Opt-in QTS Partner)

Another interviewee said that the financial incentive offered to students who pursue the opt-in QTS route falls short of what they would receive if they were to pursue the PGCE route. The interviewees felt that the higher financial incentive offered to those undertaking a PGCE would be a motivating factor for those already committed to pursuing a career in teaching. Additionally, while the PGCE route provides students with a higher bursary, students also benefit from a comprehensive training course and additional teaching experience. Together, those factors may persuade students to override the quicker opt-in route to teaching.

Four of the eight interviewees spoke about how marketing and recruitment strategies could be improved to increase interest in opt-in degrees. One interviewee suggested targeting promotional and marketing materials to Black, Asian and Ethnic Minority (BAME) students. As can be seen from the quotation below, this interviewee noted that students on their maths and science programmes are largely from BAME backgrounds and should be specifically targeted in promotional materials, to convey that teaching is an option for everyone.

“On [our] maths and science programmes, there’s a predominance of Black, Asian [and] minority students on both [opt-in QTS] undergraduate programmes. [It would be good if there was something...] in the marketing strategy where those ethnicities could be [...] modelled and reflected in the teaching profession. Anything in the marketing campaign that could target, or just reflect, those ethnic backgrounds, I think would be advantageous for us, in terms of recruiting.”

(STEM Opt-in QTS Partner)

Other interviewees (three) suggested a nationwide campaign was needed to counter low levels of recruitment. One noted that a national campaign would allow for opt-in QTS degrees to be seen as a stand-alone course rather than an extension of an existing programme. Another interviewee suggested that marketing opt-in courses as teaching degrees, as well as subject-specific degrees, on the UCAS website may attract more of those who may be interested in pursuing a career in teaching, but are largely undecided.

Programme delivery

Three of the eight opt-in QTS courses offered taster sessions for their students, two STEM and one MFL course partner. These interviewees noted that they were able to offer taster sessions for opt-in students since they did so for other ITT programmes (e.g. PGCE,

SCITT) and because taster sessions were relatively easy to arrange as they already had buy-in from schools. Those who did not provide taster sessions (five) said it was because of the time and resource required to do so. One MFL course partner who did not offer taster sessions said that, instead, they incorporated an additional school placement in the second year of the degree programme, before students made their decision whether or not to opt-in:

“What we think is more important ... is to spend some time in schools, and that’s why we insist that their Year 2 module for languages at work, they have to do that in a school. We can help them find that school, so as a kind of additional placement, but they need to do that time in a school.”

(MFL Opt-in QTS Partner)

Although slight variations existed in the delivery of opt-in QTS programmes by universities, they all entailed similar additional components to the subject-specific content covered. These included education-focused tutorials, workshops, online materials, lectures and placement(s) within a school. The interviewee from the university delivering both STEM and MFL opt-in degrees said that students from STEM and MFL opt-in courses were combined for delivery of the QTS module content. Students were then offered subject-specific sessions and placements. This approach was presumably more financially viable since the number of students enrolled to the programmes were likely not substantial enough to merit individual sessions for each of the opt-in degrees.

“The students are timetabled for four hours on a Monday. It has been designed to start off having two-hour generic sessions where the [STEM] and language people were together. They would look at specific areas. It might have been special educational needs, personal and professional conduct, positive behaviour management. These sessions were done together, because of the numbers [of students]. [They have] more seminars, rather than lectures. They then moved into subject-specific sessions, which includes some PGCE training: e.g. developing lesson planning. At the same time as the subject-specific sessions, they have a tutor from the School of Education who delivers two sessions as part of their school placement.”

(MFL Opt-in QTS partner)

Another interviewee noted that their opt-in MFL students joined those enrolled on the PCGE programme for both subject-specific and wider curriculum tutorials to ensure they achieve the 120 days’ worth of training required to be eligible for a QTS recommendation.

Interviewees noted that their respective universities adopted one of two ways to structure and accredit/weight QTS elements of their degrees. For five of the eight opt-in courses offered by the six universities, opt-in students were required to complete the QTS elements of their degrees in addition to the work of their subject-specific degrees. This additional work was not accredited or weighted in the overall degree classification, but was

accredited externally through a recommendation for QTS. This approach allowed for subject-specific degrees to run to their original timetable. Students were required to undertake the work required for the QTS elements of their degrees in two months either side of their academic year (i.e. September and June). As discussed earlier, some interviewees felt that this additional workload may result in the degrees being viewed as less attractive and result in a low uptake of the opt-in QTS route. Another interviewee noted that those who pursue the opt-in QTS route may feel pressured by the additional work they are required to undertake, which could result in higher drop-out rates.

“The QTS recommendation carries no credit for the degree, because it’s a pass or fail. It’s counted as a zero credit rated module and it’s the same for the PGCE course. The QTS is a recommendation for an external accreditation. It’s quite a packed year and it’s a longer year than the undergraduate year. It’s a year that runs September to June instead of October to May.”

(MFL Opt-in QTS Partner)

The remaining three opt-in QTS degree courses incorporated QTS into their degree programmes differently. Two courses required students to undertake QTS modules alongside their subject-specific modules, with students allowed to take fewer subject-specific modules to accommodate the QTS modules. The QTS modules were accredited with module credits and counted towards the overall degree classification. For the remaining opt-in QTS course, students were required to undertake accredited QTS modules and their final-year dissertation in an area related to teacher training. In doing so, dissertations were weighted in students’ overall degree classification.

“For QTS, they [Centre for Academic Development and Quality] insisted on 80 credits being specifically taught and the expectation that their major independent project (dissertation) in their final year was associated with that as well.”

(STEM Opt-in QTS partner)

Overall, interviewees suggested that due to opt-in QTS programmes being in the early phase of implementation and the challenges faced in recruiting students, it was difficult to say what had worked well. However, they recognised that there had been effective collaboration between different departments within universities and that the programme had offered new opportunities to students.

Six interviewees identified a range of challenges in developing and delivering opt-in QTS degrees, primarily linked to the types of students the programme targets. For instance, three interviewees noted that opt-in students are younger than those undertaking a PGCE and they generally felt that students were not emotionally and mentally prepared for teaching. As noted in one of the quotations below, one interviewee stated that opt-in students are not provided with the support and guidance that PGCE students receive to

enable them to navigate the challenges of teaching. Another noted that it is imperative that opt-in students are provided with extra support throughout their degrees to cope with these challenges.

“I don’t think that [undergraduate students] are emotionally, mentally prepared, really, for the realities of teaching and the pressured environment of schools. This is a challenge for the whole profession, how do we get the balance right for beginner teachers? It’s a highly pressurised profession, with a lot of negativity. We can’t protect our teachers from that, but usually we spend time with them talking about that and why that might be and how they could approach things. I don’t think we have the time to build up the relationships [for the opt-in QTS course] in quite the same way as we do on our PGCE programme.”

(STEM Opt-in QTS Partner)

“One challenge is that the [opt-in QTS] students are quite young compared with PGCE students. It can be quite challenging if you are nineteen going into a school placement, particularly if the students are older ... I think some thought would need to be given to how that’s dealt with [support is given to opt-in QTS students] to make sure they’ve got lots of support early on [to deal with the challenges they may face].”

(MFL Opt-in QTS Partner)

The demographic characteristics of opt-in students, coupled with the location of partner schools where students undertake their placements, were also identified as a practical constraint to programmes running effectively. One interviewee said opt-in students were less likely to own cars and partner schools can be some distance away, which could result in difficulties for students undertaking the placements.

Programme impact

All interviewees acknowledged that it was too early to offer conclusive perspectives on the impacts of the opt-in QTS programme. However, one MFL course provider said that having multiple routes into teaching would ultimately be positive, as more pathways would provide more options to suit different needs and circumstances. Another interviewee noted that PGCE MFL courses often attract a high proportion of EU students who return to their home countries on completion of the degree, and thus the impact on the supply of teachers in the UK is minimal. The opt-in QTS pathway can potentially counteract this as universities are targeting students who are already enrolled on undergraduate courses and who may not have considered teaching previously. However, another interviewee questioned whether introducing alternative routes into teaching would attract students who would have not otherwise pursued a career in teaching. It may be the case that the shorter time-frame would be more attractive to students who were already considering pursuing

teaching and had planned to complete a PGCE after graduating from their undergraduate degree.

“A lot of the students who do the PGCE in Modern Languages are EU students, and they tend to return home rather than stay and teach in the UK. The objective of the [opt-in QTS] programme was presumably for the DfE to actually get more teachers into UK schools. I think this is a more effective way of doing it than the PGCE route.”

(MFL Opt-in QTS Partner)

Interviewees raised a number of potential impacts of the programme on their institutions and the teaching profession, if the challenges outlined earlier were to be overcome (particularly around recruitment). They felt the programme had the potential to make a positive impact in addressing STEM and MFL teacher shortages. One interviewee noted that, in order to be successful, opt-in QTS degrees required further development and promotion.

“[The university] expect impact to be limited initially, because they are testing it with a limited number of students. [We] think that this programme could have a lot to offer and help the profession, but will need further development and promotion to undergrads”.

(STEM Opt-in QTS Partner)

Another interviewee noted that marketing directly to students who are applying for undergraduate courses may be beneficial, and could encourage those who may be interested in pursuing teaching as a career choice to apply for an opt-in QTS course.

“Impact is limited, because they're taking students from [a small number of students] that have already been recruited [to an opt-in degree course]. You're not actually adding specific numbers to the university, you just put them on a different pathway”.

(MFL Opt-in QTS Partner)

Two interviewees made specific comments about the issue of teacher retention and the capability of opt-in QTS programmes to increase the supply of teachers in the longer term. One interviewee noted that, while promotion of opt-in QTS courses and incentives may increase the number of students recruited to the programme, they do not believe there has been consideration of how people gaining QTS can be encouraged to pursue a long-term career in teaching. Therefore, they believe the opt-in QTS programme has the potential to train students, but will not necessarily increase the supply of teachers. One interviewee noted that certain conditions could be attached to the bursaries to tackle retention issues, such as having to return some of the bursary if individuals are not teaching within two years of graduating. The interviewee also noted that providing other financial incentives

may be more attractive to opt-in QTS students, such as contributions to clearing student loan debt.

“If you don’t teach for schools for two years, then you have to pay some [money] back. I think that sort of thing is more attractive. If [DfE] said, ‘We’ll pay off your student debts by the second year of teaching,’ that would be a better use of public money. At the moment the students see they’re racking up debt, if they know their loans will be paid off, it might be more attractive to them.”

(MFL Opt-in QTS Partner)

Future plans and recommendations to other universities

The majority of participating university interviewees (seven) indicated that if the existing programmes were successful and sustainable, their universities would continue to offer opt-in QTS degrees and would consider incorporating opt-in QTS to other subject-specific degrees. Key factors universities would consider before making this decision included ensuring there would be enough demand, which would be reflected if student numbers increased in existing QTS degree programmes. Combining students on various subject-specific, opt-in degrees - as some universities have done - would allow universities to design a shared teaching programme for opt-in degrees.

“If we can get a sustainable number of students who are doing the education modules, then we can roll it out to other subject areas. It may mean that you only get five physicists, five computer scientists, five modern language, five geography, five biology, but you then have a cohort of [...] students in the modules.”

(STEM Opt-in QTS Partner)

One interviewee noted that they were unsure about whether their university would continue to offer opt-in QTS degrees as, at that time, it was not cost-effective (given the small numbers of students) due to the additional demands placed on staff and the additional recruitment activities. Despite that uncertainty, all eight interviewees said that they would recommend the programme to other institutions because “even if you only catch a few students, it’s very rewarding.”

Interviewees made a number of suggestions to universities wishing to offer opt-in QTS degrees, to ensure programmes are successfully developed and implemented. One suggested that opt-in QTS programmes are easier to develop and deliver where universities are already offering well-established PGCE courses. Existing materials and resources could be utilised to develop opt-in QTS programmes to ensure alignment between new and existing courses, and to avoid the challenges of developing programmes from scratch.

“I think people need to have a well-established track record in delivering MFL at PGCE ... unless you’ve got an Education department which has got that experience, it’s quite difficult to [develop opt-in QTS degree courses] from a standing start.”

(MFL Opt-in QTS Partner)

Two other interviewees noted that developing close working relationships with other faculties and departments within universities would benefit those who plan to develop and deliver opt-in QTS programmes. Another interviewee acknowledged that existing relationships with local partner schools were beneficial, especially in planning and arranging placements.

6.5 Findings from the interview with a placement school Head of Department

Motivations for offering placements

The placement school had a long-standing relationship with a local university and had increased the number of ITT trainees they had offered placements to over a number of years, up to nine or ten trainees per year. Typically, these trainees had undertaken a Post Graduate Diploma in Education (PGDE) along with a Masters programme. The school has also offered placements to occasional Access⁴¹ trainees.

The placement school interviewee first heard about the opt-in QTS programme through a contact from the university that was offering the programme in partnership with another university. The school welcomed the opportunity to explore different routes into teaching and potentially recruit teachers in shortage subjects, such as maths and physics.

“I have to say, we grabbed their hand off, because mathematicians are very hard to get hold of and recruit.”

(Head of Department)

Having received a profile for a prospective opt-in QTS student, the interviewee spoke to the university about what was involved. As the school had an existing relationship with the university, no additional administration was required since insurance and risk assessments had already been addressed for previous trainees the school had hosted. The school took on one (maths) opt-in QTS student during the 2017/2018 academic year, who joined the school for their placement in the second year of undergraduate study.

The opt-in QTS student attended an induction in the school along with trainees on other routes into teaching (following an induction and initial training within the university that they

⁴¹ Access to Higher Education Diploma in Education (*Teaching and Learning*) courses.

had all undertaken). There was one other maths trainee (following a different programme) in addition to the opt-in QTS trainee. The interviewee noted that the school managed the timetable to ensure both maths students had separate classes to observe/participate in, but met regularly in subject-mentor meetings and with other students undertaking placements at the school.

Organisation and delivery of the placement

The opt-in QTS student's placement training, undertaken for one academic term, consisted of:

- One day a week at the university covering pedagogy and subject content;
- Four days a week in school, including both classroom time and participation in the school's CPD programme; and
- Ongoing dialogue and support, including provision of a mentor in the maths department (with weekly meetings between trainee and mentor, and fortnightly meetings between the head of department and all trainees).

The training was tailored for the opt-in QTS student, to fill in some of the knowledge and skills gaps that the school felt were evident compared to trainees on other ITT routes. Specifically, these related to pedagogy and delivering subject knowledge to learners. The subject mentor was responsible for assessing the trainee, to establish what kind of support was required and make provisions for this. The opt-in QTS student had very strong subject knowledge, but needed more support (compared to trainees on other routes into teaching) to self-reflect on the skills needed to impart this knowledge to learners.

"I think because [they] thought 'I'm a brilliant mathematician' equals 'I'm a brilliant teacher'. It's imparting the knowledge to others that's the key thing. I think [they] had to make that journey and realise, and [they] got there in the end."

(Head of Department)

In addition to observations, lesson planning, shadowing teachers and working with pupils within their subject area, all trainees (both opt-in QTS and those on other routes) were encouraged to undertake additional enrichment activities. As part of this, the opt-in QTS student was involved in a Year 7 reading club, which involved undertaking assisted reading activities with weaker readers. Collectively, these experiences had been deemed effective in helping the opt-in QTS student to experience teaching, although the interviewee did speculate that it would have been beneficial if the student had had more pedagogical knowledge.

The interviewee felt that the opt-in QTS student had enjoyed the opportunity to learn, although like other placement students they had faced some challenges in overcoming challenging pupil behaviour and individual challenges in putting learning into practice. The

interviewee felt the opt-in QTS student had also benefited from the pedagogical content covered in the placement, as well as peer learning within the wider trainee group, which helped the trainee to address some of the practical challenges faced in applying specialist subject knowledge to effective teaching practice.

The interviewee had not come across the option for students to undertake 'taster sessions' in the first year of their degree as part of the opt-in programme, but would be happy to facilitate this if the affiliated university were to offer such sessions.

Trainee assessment during placement

The opt-in QTS student (along with trainees from other routes) was assessed throughout the placement, including via ongoing assessment of teaching, formal written feedback, development conversations, and an interim and final review.

Prior to receiving written feedback from teachers, trainees would self-assess their own performance, which facilitated development conversations with their subject mentor. All subject mentors received training both in-house and from the affiliated university, and the interviewee recognised the school's obligations to develop subject knowledge as well as offering teaching experience to the opt-in QTS students they take on.

The interviewee was responsible for managing and designing placements, with input from the university including on-site training, which most subject mentors attended at the beginning of each placement intake, to share training materials and ensure consistency in the way that placement programmes are delivered to trainees.

Progress was monitored against a tracker, giving the opt-in QTS student credits towards a Masters. They finished the PGDE with 60 credits, and could go on to pursue the Masters as a Newly Qualified Teacher (NQT) if they wanted to. The progress points for the tracker were determined and dictated by the university.

The interviewee valued the strong relationship they had with the university to ensure that opt-in QTS students were meeting the required standards for QTS. Quality assurance was achieved through:

- observation of opt-in QTS students by assigned mentors;
- a head of department and subject mentor co-observation of opt-in QTS students;
and
- a joint observation by the liaison tutor from the affiliated university and the subject mentor.

The interviewee also provided quality assurance through checking the review forms completed by subject mentors and opt-in QTS students at the end of each phase, and fortnightly team meetings with all trainees. On completion of the placement, the school

submitted a review form for the opt-in QTS student to the university, and asked the student to provide an evaluation of the placement, to help the school to improve delivery.

To ensure consistency and standardisation of the programme processes, the interviewee had been involved in quality assuring final triangulation meetings (usually between the HEI liaison tutor, the subject mentor and the trainee), both internally and in other schools delivering the programme with students from the affiliated university.

Perceptions of and plans for the programme

The interviewee was overwhelmingly positive about the programme. They saw potential benefits for schools in terms of access to high-quality trainees with subject specialisms.

“We’ve got a very able mathematician who’s passionate about [the] subject and wants pupils to benefit from that knowledge. That, to me, was a very big step up that we have got a high-quality maths undergraduate looking at teacher training...we have had people as maths trainees who have come from not a maths graduate degree, a different background, and they’ve struggled with subject knowledge.”

(Head of Department)

Based on their experience, the school planned to offer future placements to maths trainees taking this route, and would also look to include physics in future years. In particular, the interviewee highlighted the value of giving students early practical experience of teaching, to inform career decisions and allow them to consider whether teaching was for them before any further investment was made in their training and development. The interviewee also believed that those who were galvanised to pursue a career in teaching could benefit from the practical experience and confidence that the placements offer. The interviewee felt that the opt-in QTS programme benefited both schools and students in terms of outcomes.

“It gives them [opt-in QTS students] a really good opportunity to be able to see, ‘Is this career for me?’ Also, they are gaining two qualifications. They’ve got a degree and QTS as well. They are in a really strong, marketable position at the end of the degree course.”

(Head of Department)

The interviewee expected that the impact of opt-in QTS for undergraduates would be a larger number of shortage-subject trainees coming through schools, increasing both the supply and quality of teachers in those subjects. The interviewee acknowledged that because the opt-in QTS course was being delivered collaboratively by two universities, there would also be a requirement for close working relationships with them. The interviewee felt this would particularly be the case at the points where opt-in QTS students are undertaking an extended placement and are completing their dissertations.

“It’s a pressurised year for undergraduates. That’s something that really does need careful thinking through. It’s [University A] and [University B] who are doing [delivering] the undergraduate QTS between them. They’ll need a really good, strong partnership to support their trainees through [the degree] or they might, you know, lose them at that crucial stage.”

(Head of Department)

The interviewee’s school had also taken maths and physics trainees on the Paid Internships programme in recent years⁴², which was also highly valued by the interviewee for the classroom experience that it offers prospective teachers. The interviewee recognised the recruitment challenges that schools face in filling vacancies for shortage subjects and noted that the school would ‘be very open’ to considering hosting placements for other programmes. For instance, although the interviewee was aware of the FTS programme, and had been keen to pursue this, they had been unable to find any further information on this programme via the DfE website. As a result, they had set something up independently, collaborating with a local primary school to ensure that students within the school who are looking to pursue teaching careers are able to gain some practical experience.

“I wanted something for our sixth-form students to be able to do that when they’re applying for teaching on their UCAS forms that they’ve actually done a substantial programme by doing that. I’ve actually set something up in house, because we couldn’t find it.”

(Head of Department)

6.6 Findings from semi-structured interviews with undergraduate opt-in QTS students

Background and motivations

Both interviewees first became aware of the programme during the first year of their degree, as (given they were part of the first cohort) the programme was not yet advertised through UCAS at the time they were applying for degree courses.

Both interviewees said that their universities had marketed the opt-in elements of their degree programme through emails, leaflets, seminars and information sessions. However, both said the information about the programme was limited due to degree programmes not yet being finalised.

⁴² See section two of this report for more detail on the Paid Internships programme.

“[The information I received about opt-in QTS degrees] was informative, but then, actually, there were an awful lot of details missed out from it where they hadn’t been finalised at the time. Quite a few details have been finalised as I’ve gone along because I’m the first person on this course.”

Neither interviewee had previously considered teaching as a career choice nor had looked for teaching degrees. Both were encouraged to apply due to the opportunity to acquire a teaching qualification by the end of their degree. They both recognised that taking the opt-in QTS route meant they would acquire a teaching qualification sooner than if they pursued a traditional degree then a PGCE. They also felt that the opt-in QTS degree still gave them enough time to decide if they wanted to pursue teaching as a career.

“[The opt-in QTS degree] had the advantage of being... integrated into my degree. When I finish my degree, I’ll know whether I want to be a teacher or not. I’ve got the experience already, whereas for a PGCE I’d have to spend another year doing more training or Teach First would be another three years or something.”

Taster sessions

One of the two interviewees was offered taster sessions by their university. For this interviewee the taster sessions comprised a module made up of a series of lectures and a five-day placement, which contributed to their final degree results.

The content of the taster session lectures covered learning and teaching methods to engage children, and how to plan and structure lessons. The interviewee said that while the lectures were delivered well, the placement lacked the opportunity to practically apply learning from the lectures, as during the five-day placement they predominantly observed other teachers and felt they took on the role of a teaching assistant.

“[The lectures] were well delivered. To apply it practically, considering it was our first-ever placement and it was quite a short placement, it didn’t lend itself very well to being applied. In your first week you don’t do that much teaching, mostly observations, so we were just acting as Teaching Assistants and seeing teachers use these practices.”

As part of the module, the interviewee was also asked to produce online resources and plan lessons among other teaching materials. However, they did not have the opportunity to utilise these materials during their placement and the interviewee also felt that placements were poorly organised.

“We planned some practical [tasks], wrote some risk assessments, learned HTML and made a website and coded a lesson plan onto that. We also made some online resources, lesson plans and a few other things. We went into

schools and were encouraged [by lecturers] to try and find a time when we could teach a lesson, if possible. For me [...] I wasn't going in on the right days to be able to teach to that class."

Although the interviewee received constructive feedback (both formally and informally) on the tasks they prepared and assessments they undertook, as part of the module, they felt it was not particularly useful since there had been little opportunity to put this feedback into practice through teaching.

The interviewee reported that there were two key challenges in organising the placements. Firstly, the interviewee highlighted that students who had not been proactive in contacting schools early on struggled to find a placement school – although the university had since established links with a number of local schools to ensure subsequent students did not face similar challenges.

Secondly, in order to arrange placements, there was a requirement to have a Disclosure and Barring Service (DBS) check. The interviewee reported this to be challenging since they lived in a shared house with little evidence (e.g. bills) to demonstrate their residency in order to successfully apply for a DBS check. The interviewee voiced these challenges to the module leader and the university has since implemented changes so subsequent cohorts do not face the same challenges.

"Getting a DBS check, getting all that paperwork, especially if you're in a shared house, getting your address at that specific house [was a challenge]. Sometimes it's more difficult, because if you're not the one paying the bills or if you've got a shared account or you just pay the letting agents directly then there might be much paperwork with your name attached to it."

The interviewee said the taster sessions had no influence on their decision to opt-in to the QTS element of their degree, as they had already decided to pursue this route once they had seen the marketing materials. The interviewee undertook the module as it was a requirement to apply for the opt-in QTS degree.

Delivery of opt-in QTS degrees

Both interviewees said that the application process involved an expression of interest followed by an interview. One said the process was easy and straightforward, and the other that the interview process was relaxed as they knew the interviewers from the taster sessions.

Both interviewees were required to undertake placements and modules as part of the opt-in element of their degrees. These modules were incorporated into their subject-specific degree. This meant that both students took fewer subject-specific modules to accommodate the QTS modules but the placements were additional. The QTS modules

students undertook were the same as those being taught on the PCGE course. They were awarded module credits on completion that counted towards the overall degree classification.

“There were two Masters level modules. One of them was, ‘My place in schools and societies,’ and the other one was, ‘Teaching and learning.’ There were elements of learning theory, psychology, developmental psychology, and behind special educational needs. The effect of it was the same modules as a PGCE student would take.”

Both interviewees spoke positively about the content they covered in the modules and were satisfied with how modules were delivered. As evidenced in the quote below, one interviewee discussed the relevance and usefulness of the content they covered in the QTS modules. The interviewee also noted that recommended reading materials were easily accessible and useful. Neither interviewee found the placement activity burdensome, and were optimistic about it enabling them to excel in other skills such as organisation.

“I would say [placement activity] was very useful. We spend a lot of time in school working alongside teachers. I’ve got quite a lot of experience teaching now, probably as much as a PGCE student would have from a year. The experience, like, being in front of a classroom, like, being in control of a classroom of kids has been quite useful in terms of helping my confidence, my communication. The high workload has helped with my organisation.”

Although some placement activity fell partly during the summer break, both interviewees described the experience as useful in gaining teaching experience and helping to build their confidence in classroom teaching. Both interviewees compared opt-in QTS elements of their degree to PGCE postgraduate courses (which cover a larger number of modules and teaching experience over the year), suggesting opt-in QTS was viewed highly. Interviewees saw the value in completing QTS modules alongside their undergraduate degree which meant that they achieved QTS sooner than they would have done if they took a more traditional route into teaching.

Interviewees also valued working alongside PGCE students. One interviewee said they were able to engage in other CPD opportunities open to PGCE students, some of which they found to be valuable, and some less useful. Things viewed as being ‘less useful’ included content they had already covered or were not able to utilise in their placement teaching.

“There were various CPD activities that I did alongside the PGCE students that I had already done, so I found useless. Some of them, it was stuff that was actually quite useful, but I ended up doing it right at the end of my placement so

there wasn't really any time to apply it. Reflecting on behaviour management strategies, stuff like that.”

While both interviewees were largely positive about placement activity and taught elements of their opt-in QTS courses, satisfaction with support provided by the universities varied. As noted earlier, for one interviewee the support provided by their lecturer was structured; they had weekly feedback and support sessions with their lecturer to discuss their progress and/or concerns. For the other interviewee, while support was provided by teachers at the school where they did their placement, the only support they said they received from the university was during tutorial sessions. While the interviewee found these useful, they were infrequent and felt to be insufficient.

Interviewees suggested a number of improvements which would help to improve opt-in QTS degrees for future cohorts. One interviewee felt that the whole programme would benefit from being better organised, with decisions being formalised to ensure that processes were clear for future cohorts (e.g. applying for placements and how to manage timetabling clashes). The other interviewee stated that timetabling needed more attention on their course, to ensure that student placement activity was arranged after students had covered theory sessions/modules, to allow students to apply what they had learned in the classroom.

Overall experience and future plans

Both interviewees reported a highly positive experience of the opt-in QTS programme and valued the opportunity to teach and gain practical experience within the classroom. Interestingly, both interviewees also indicated that while the additional placement activity was stressful at times, they enjoyed embarking on a challenge and as a result had improved their communication, planning and organisation skills. However, one of the interviewees felt that while the placement activity was useful in improving skills and gaining practical experience, the exposure to “overworked” teachers had influenced their decision not to pursue a teaching career.

The other interviewee had since secured a job at the school where they undertook their placement activity. They stated that the school had the necessary resources in place to support them throughout the remainder of their degree.

“I've actually got a job teaching in September. At the school I'm training at now, they had a position open up, I applied and got the job, which was quite relieving. I don't have to search around too far for jobs. As long as I pass the [opt-in] course I get the job. They're happy to say that with their guidance, they trust their staff enough to teach me well enough to be able to pass and to be a good teacher by the time that I finish my training.”

(Opt-in QTS student)

7. Teacher Subject Specialism Training Findings

7.1. Introduction

This chapter presents findings from evaluation activities undertaken for the Teacher Subject Specialism Training (TSST) programme between November 2017 and July 2018. The purpose of TSST is to improve the subject knowledge of non-specialist teachers and returning teachers in secondary maths, core maths, physics and modern foreign languages (MFL) and to increase the number of hours taught. TSST is a school-led model through which schools and sixth form colleges can apply for grant funding to design and deliver subject specialism training. Local lead schools work in partnership with other schools and strategic partners such as HEIs, subject associations, Maths Hubs and Science Learning Partnerships, to design a programme and delivery model. It is also a requirement that local lead schools coordinate a process to offer programme certification, Master's level credits or professional awards for those participants who complete the programme. It is the responsibility of the local lead school to determine the award that is most appropriate to their training, but this must include external validation of the programme. A minimum specification for all training programmes is required. Lead schools also manage and develop network roles, manage the grant funding process, collate management information and perform several other administrative functions⁴³.

The findings include evidence from surveys completed by 980 teachers who had undertaken TSST (“beneficiaries”), 45 schools implementing and delivering the programme (“lead schools”); and 30 staff in schools that employed teachers who had undertaken TSST (“recipient schools”). Findings from in-depth interviews with 25 teachers who had undertaken TSST, 10 staff who had direct responsibility for the delivery of TSST in their lead school and eight staff in schools that employed teachers who had undertaken TSST are also presented.

7.2. Key messages

Motivations

- Lead schools recognised a demand for TSST because of a gap in the availability of specialised, subject-specific training for teachers. Lead schools were also motivated to improve subject knowledge among target teachers and help schools manage workforce challenges.
- Schools who employed a teacher who had attended a TSST course (“recipient schools”) were motivated to improve the quality of teaching and pupil outcomes in their

⁴³ Since the interviews were conducted, there has been a change in this aspect of programme delivery; it now includes regional lead schools who are responsible for coordination and development of TSST across their region and distribution of grant funding agreed by DfE to local lead schools.

schools. For STEM TSST courses, schools primarily intended to increase the number of non-specialist teachers and address skills shortages, whereas for MFL courses schools were often interested in increasing the number of languages taught by existing teachers.

- Beneficiaries (both current and returning teachers) generally wanted to improve their confidence in teaching STEM and MFL subjects, and further advance their careers. The majority of respondents volunteered to participate in TSST; the minority were asked or told to do so by their school.

Marketing the programme

- The most frequently used marketing methods for TSST courses by lead schools were posters, leaflets and flyers to schools within a network. Although recipient schools found marketing materials for TSST courses useful, some preferred meetings/events with lead schools, so people could ask specific questions.
- Teachers were often made aware of TSST through colleagues in their school, and did not look for further information beyond this, which highlights the importance of leveraging existing relationships in raising awareness about TSST.
- Lead schools saw recruitment as the biggest challenge to delivering TSST. Some schools were increasingly struggling to recruit teachers due to a reduced pool of applicants, increased competition from other lead schools and stretched school budgets.
- Across all subjects, lead schools reported that TSST had been less effective at attracting former teachers back into the profession. The communication model adopted by most relied on school networks and was therefore less suited to reaching returners.

Application, enrolment and programme support

- The lead school application process was straightforward for most of the respondents. Applicants found it easy to evidence their own capacity and expertise to deliver TSST, but some struggled to evidence costs relating to the programme, or the needs of partner schools. Beneficiaries were largely positive about their experience of the online application process.
- Many lead schools accessed external support from subject advocacy organisations to help design, deliver and certify TSST training.

Design and delivery of the programme

Partnership working

- Strong working partnerships between lead schools and local schools, alliances/networks and universities were central to the effective recruitment, design and delivery of TSST.
- Teaching School Alliances, MATs and universities all worked with lead schools to design and deliver TSST training. In some cases, lead schools capitalised on existing relationships; others used the opportunity to develop new networks. Recipient schools

in pre-existing networks were more positive about partnerships than members of newly-convened networks.

Content and delivery

- Lead schools designed the TSST training, often in conjunction with one or more strategic partners. TSST was primarily delivered face-to-face, with some providers offering additional online activities and support.
- Providers delivering MFL TSST courses were more likely (than STEM TSST) to incorporate online delivery methods, such as commercial language teaching software. Compared to other aspects of the courses, beneficiaries were more critical of online components, which were not always seen to be relevant or appropriately aligned to course content.
- Beneficiaries strongly favoured tailored delivery that reflected their variety of learning requirements. Overall, all TSST activities and course elements were rated as useful by beneficiaries in the baseline and follow-up surveys.
- Providers offered either formal, written assessments or a combination of informal and formal assessment. Beneficiaries felt ongoing formal assessment enabled facilitators to identify and address knowledge gaps, which they said led to their increased confidence.

Satisfaction with programme content and delivery

- Recipient schools were very satisfied with the delivery of TSST, particularly the relevance and quality of training offered. However, they were more neutral towards communication from the lead school about the benefits of TSST.
- Most beneficiaries were satisfied with the knowledge and skills they gained through TSST. During in-depth interviews, beneficiaries said TSST courses were well-structured and relevant; balanced between teaching, practical work and (for STEM courses) experiments; and effectively used facilitative teaching practices.

Value of the programme

- Most survey respondents from lead schools said TSST successfully upskilled teachers in subject-specific pedagogy, improved the knowledge of non-specialist teachers and refreshed the knowledge of returners. Demand for TSST was stronger than demand for other CPD programmes.
- Respondents from recipient schools said teachers became more knowledgeable and confident about teaching the target subject as a result of TSST. However, they were more neutral regarding improvements in pedagogical practice.
- Most surveyed beneficiaries said TSST had increased their confidence in teaching the target subject. Three in five felt TSST improved their prospects of career progression. However, expectations around career progression and additional subject teaching after completion were not always met at the point of the follow-up survey.
- In follow-up qualitative interviews, MFL beneficiaries reported a reasonably consistent positive impact on opportunities to teach in the target subject. In contrast, a few STEM

interviewees with no or limited experience in the target subject felt TSST did not provide sufficient depth that they could teach the subject with confidence.

Impact of the TSST programme

- At the time of the fieldwork it was too early to assess the full impact of the programme, meaning the findings represent self-reported early impacts and potential benefits. Lead schools provided examples of school-level impact arising from TSST. These included beneficiaries leading a restructuring of STEM delivery across a school, and an individual teacher receiving promotion and cascading their TSST learning to colleagues.
- Each research audience recognised positive impacts on teachers' confidence, subject knowledge and, to a lesser extent, pedagogy. In the follow-up survey, nine out of ten beneficiaries said TSST had a positive impact on their enjoyment of teaching the target subject.
- Recipient school interviewees were equivocal about the impact on pupils' understanding of the target subject, but most agreed that they had seen some improvement in this respect. The majority of beneficiary survey respondents also believed that undertaking the TSST course would result in improvements in pupils' understanding of the subject going forwards.
- Advocacy of TSST was high among recipient schools and most said they were likely to use TSST in the future. This implies recipient schools observed a tangible benefit from their teachers' involvement in the programme.
- Over two-thirds of respondents said TSST improved their disposition towards professional development. This may be particularly beneficial for returning teachers and teachers who, for whatever reason, have become disengaged with ongoing professional development. TSST had a weaker impact on respondents' feelings towards teaching overall.
- The evidence suggests that interviewees *already* teaching their TSST subject had less opportunity to increase the number of teaching hours, although interviewees reported that both the quality of their teaching and confidence was improved. In cases where interviewees did not go on to teach their TSST subject, this was primarily due to reduction/removal of school-level demand, or job status (for those intending to return to teaching). It was not possible to quantitatively measure impact on the number of hours teaching the target subject in the timeframe of the evaluation activities that were undertaken.

Recommended improvements

The following improvements (that still fitted within the remit and purpose of TSST) were suggested by interviewees:

- **Improved communications.** Recipient schools said they would appreciate more detail on TSST course structures and the benefits to teachers and schools. They also

thought communications between senior management teams would help strengthen partnership working. Strong messages on the benefits to teachers and returners would also help increase demand. Beneficiaries said better communications and messaging would help manage expectations.

- **National management of the programme.** Lead schools said they would like TSST provision to be mapped. This would help them target recruitment, identify areas where provision is currently limited and show where supply was particularly strong.⁴⁴
- **Programme design.** Some recipient school interviewees suggested more TSST sessions could be held over a longer (e.g. two-year) period and content coverage could be increased, so beneficiaries could teach a wider range of year groups. Beneficiaries similarly asked for longer programmes to provide in-depth content for those who wish to teach Key Stage 3-5. Lead schools noted that prior classroom experience and newer aspects of teaching were not included in TSST, but are important areas to cover for returning teachers. Assessing beneficiaries prior to training to tailor content was also suggested. Finally, there were calls to improve the relevance of online learning content for TSST course participants.

7.3. Methodology

This chapter outlines the key findings from:

- A longitudinal survey completed by teachers who had undertaken TSST between September 2016 and September 2017 (980 respondents completed the initial survey⁴⁵ between 17th November and 17th December 2017 and 400 completed a follow-up survey four to five months later⁴⁶);
- Twenty-five semi-structured interviews conducted with teachers who had undertaken TSST⁴⁷;
- A survey completed by 45 lead schools on the TSST programme;
- Ten semi-structured interviews with staff who had direct responsibility for the delivery of TSST in their lead school⁴⁸;

⁴⁴ A mapping exercise of TSST provision has since been conducted and published in the Teachers Analysis Compendium in September 2018. See publication here: The 2018 Teachers Analysis Compendium - <https://www.gov.uk/government/statistics/teachers-analysis-compendium-4>

⁴⁵ Of the 980 respondents who completed the survey, 602 had undertaken TSST in maths, 208 in physics and 170 in MFL.

⁴⁶ Of the 400 respondents who completed the follow-up survey, 248 had undertaken TSST in maths, 82 in physics and 70 in MFL.

⁴⁷ Nine were returning teachers (three in STEM, five in MFL) and sixteen were employed teachers (11 in STEM, five in MFL and one in both). Of the 25 respondents interviewed, 14 undertook TSST in STEM subjects (seven in physics and seven in maths), 10 in MFL subjects (six in Spanish, three in French and one in German) and one respondent had completed different TSST courses in both a STEM and a MFL subject.

⁴⁸ Four of the ten interviews were conducted with individuals from lead schools delivering both STEM and MFL TSST courses. Four lead schools were delivering STEM TSST only, and two were delivering MFL TSST only.

- A survey completed by 30 staff in schools that employed teachers who had undertaken TSST (either the Head of Department for that staff member, or the person responsible for their professional development); and
- Eight semi-structured interviews conducted with staff in schools that employed teachers who had undertaken TSST⁴⁹ (as above).

Additional methodological information can be found in Appendix 1. Note that, given the low response rate for the recipient school survey, the findings should be treated as indicative only and may not be representative of all schools whose staff participated in TSST. Also note that, due to rounding, some percentage totals detailed in the graphs may not add up to 100.

Where notable differences have been observed between those who undertook TSST in STEM and those who undertook TSST in MFL, they have been reported.

7.4. Findings from interviews and the longitudinal survey of teachers who had undertaken TSST

Table 3 displays a breakdown of the TSST subjects completed by teachers. The data presented here is unweighted because the achieved sample is broadly representative of the population sample.

Table 3: Breakdown of survey respondents by TSST completed

	Population sample ⁵⁰		Post-TSST (baseline) survey		Follow-up survey	
	n	%	n	%	n	%
Physics	690	19%	208	21%	82	21%
Maths	2294	64%	602	61%	248	62%
MFL	622	17%	170	17%	70	18%

⁴⁹ Five respondents were STEM head of departments/senior leaders and three were MFL.

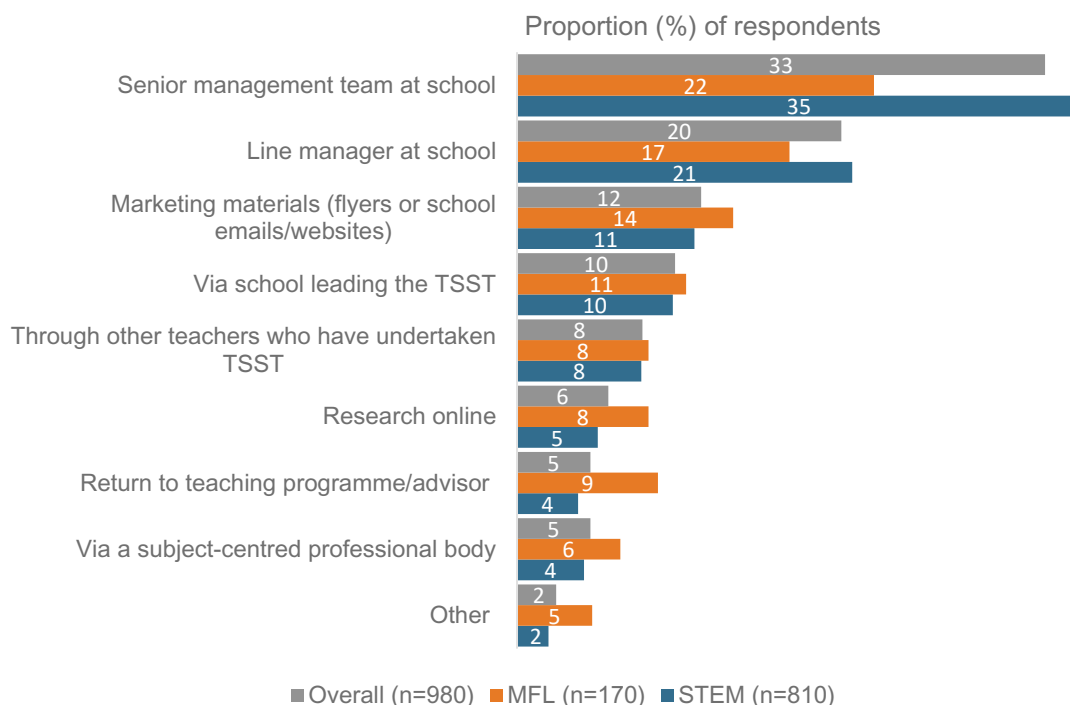
⁵⁰ The sample frame comprised individual teachers who, at the time the sample was taken, had either completed TSST, were still on the programme or had been recruited onto TSST but had yet to start. Start dates for TSST where listed ranged from 31st October 2016 to 1st January 2017.

How respondents heard about TSST

Respondents heard about the TSST course through various means (see Figure 22); just over half heard from line managers (20%) or the senior management team in their school (33%). However, MFL respondents were less likely to have heard about TSST from a line manager (17%) or a senior manager (22%), compared with STEM respondents (21% and 35% respectively).

Overall, just over a tenth of respondents (12%) heard about TSST through marketing materials and small numbers reported hearing about TSST through other means, i.e. personal research online (6%) or via a subject-centred professional body (5%). A slightly greater proportion of MFL respondents heard about TSST by these means compared with STEM respondents. In addition, a greater proportion of MFL respondents (9%) heard about TSST through a return-to-teaching advisor compared with STEM respondents (4%). This was also reflected in interviews, where half (five) of the interviewees who undertook MFL TSST (and who were all returning to teaching or had recently moved to England), found out about the TSST courses on offer through their own research or a return-to-teaching advisor. These findings are reinforced by interviews with lead schools, reported later in this chapter, who noted that there was a greater proportion of returners on MFL TSST courses compared with STEM TSST courses, and who, therefore, may be more likely to have found out about TSST through personal research.

Figure 22: How did you first hear about the Teacher Subject Specialism Training (TSST)? (n=980)



The majority (10) of STEM interviewees did not seek any additional information before applying for a TSST course, because they were either enrolled onto the course by their school or heard about the programme through their networks and, in either case, felt that

they had already received sufficient information. The remaining five STEM interviewees sought information through conversations with colleagues who had completed the course previously, or through their lead school website. However, a number of interviewees who undertook MFL TSST courses (six) sought more information about TSST courses online, using search engines and lead school websites. Overall, they felt the lead schools' websites were the most relevant sources of information to allow them to subsequently apply for TSST.

“I spoke to colleagues who had done it a previous year. They said that it was really useful to develop their skills. I didn't go onto the Internet or a book to find out about the course, but I did speak to colleagues who had completed it.”

(STEM course participant)

Almost all interviewees (21) reported a positive experience of the online application process, finding this to be straightforward and simple. One interviewee noted that lead schools were non-selective in accepting teachers, which made the course open and welcoming to teachers with varied experiences, abilities and motivations.

“I was just pleased because the way [the lead school] made [the application process was] very open. They were pleased to have applicants. It wasn't trying to put you off or tell you there was a limited number of places. They were saying, 'please come along if you can.' That was the nice thing about it. They weren't making it difficult or making it selective.”

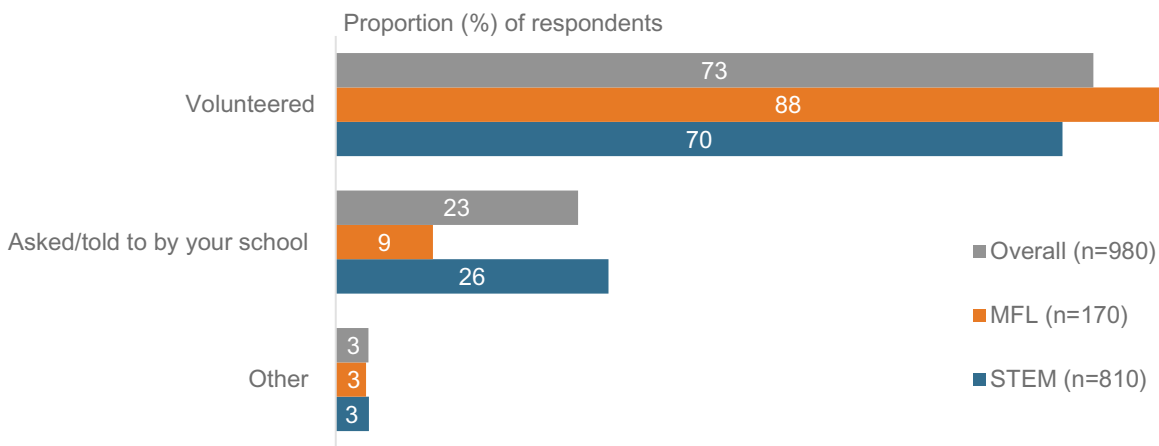
(MFL course participant)

Three interviewees reported that they had no involvement in the application process since they were enrolled onto the TSST course by the school that employed them, and nearly all respondents (23) said they did not require any support with the application process.

Motivations to upskill through TSST

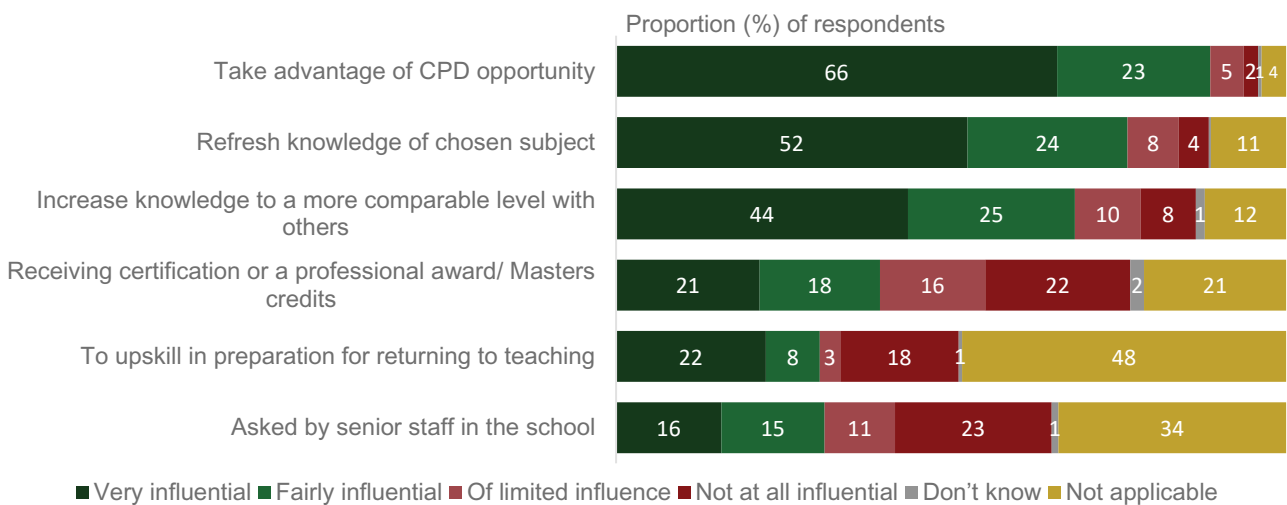
As seen from Figure 23, almost three-quarters of survey respondents had volunteered to participate in TSST (73%), comprising 70% of STEM respondents and 88% of MFL respondents. A smaller proportion undertook TSST either because they were asked, or told, to do so by their school (23%); nearly all of this group (93%) were STEM teachers. A small number of respondents noted other motivations for undertaking TSST (3%) such as that it was part of a return-to-teaching programme, to improve employability, increase subject knowledge or improve teaching skills.

Figure 23: Which of the following statements best reflects why you applied for the TSST course? (n=980)



The most influential factor in applying for TSST was the chance to take advantage of a CPD opportunity (See Figure 24); almost nine-tenths of respondents reported it to be either ‘fairly’ or ‘very’ influential (89% n=869). However, other factors related to improving subject knowledge were also influential for more than half of the teachers surveyed suggesting a CPD opportunity was not the sole factor for most.

Figure 24: How influential, if at all, were the following reasons in applying for the TSST course? (n=980)



The chance to take advantage of a CPD opportunity was discussed in further detail in the interviews. Some interviewees (six) stated that prior to enrolling on a TSST course, there were no appropriate courses available to enable teachers to upskill in subjects other than those they had trained in. For some, the timing of courses and distance required to travel to the venue were also important factors when considering whether to pursue both subject-specific and CPD training courses.

“I looked at adult learning courses, evening courses, and so on, locally, and there was nothing right for me in terms of venues and distance. I just had to wait and see what came up.”

(MFL course participant)

Four interviewees noted that when they had attempted to upskill and/or engage in additional subject-specific learning in the past, this was often self-directed. For example, as demonstrated in the quote below, one interviewee noted that changes in the curriculum meant that they engaged in regular self-directed learning to ensure they were teaching the correct curriculum content. The TSST programme provided these interviewees with the opportunity to upskill in a new subject while also increasing their confidence to teach it.

“In my role, because it’s constantly changing, I’ve always had to teach myself what I’m about to teach. So, this was an opportunity to actually be taught what I’m about to teach [...] and have a bit more guidance. So, it was really useful for me, actually.”

(MFL course participant)

Three quarters (76%) of survey respondents reported that refreshing knowledge of their chosen subject was ‘very’ or ‘fairly’ influential in motivating them to take TSST. Over two-thirds (68%) said they were influenced to undertake TSST to bring knowledge of their chosen subject to a more comparable level with those who have undertaken teacher training in the subject.

Receiving certification or a professional award/Masters credits for the training was an influence for 39% of respondents. The least influential factor was being asked by a senior member of staff in the school. Overall, 31% of respondents rated this as either ‘fairly’ or ‘very’ influential, the majority of whom were STEM respondents (91%). A significantly smaller proportion (17%) of STEM respondents indicated they were *not* employed as a teacher prior to their TSST course, compared with 24% of MFL respondents, which supports findings from the interviews with lead schools, who also reported this pattern.

This is also reflected in the proportion of respondents who cited their influence as upskilling in preparation for returning to teaching, which was reported as ‘fairly’ or ‘very’ influential by almost a third of respondents (30%) overall⁵¹. Breaking the results down further, 28% of STEM respondents reported this reason as ‘fairly’ or ‘very’ influential compared with 43% of MFL respondents. According to interviews with those who had undertaken TSST, teachers who were returning to the profession (two) or were an NQT (three) were motivated for pedagogical reasons as opposed to updating their subject knowledge, as they lacked recent teaching experience. As illustrated in the quote below,

⁵¹ Due to the larger number of STEM respondents compared to MFL respondents, STEM accounts for three quarters (76%) of these.

one interviewee who was returning to teaching said they wanted to gain practical experience of the application of modern teaching methods.

“I didn’t feel the need to upscale my physics [knowledge]. It was more to do with getting exposure to the modern teaching methods, terminology, phraseology and the verbiage that people use. [The TSST course was] very useful for that.”

(STEM course participant)

One NQT interviewee, whose specialism was computer science, reported that they were also required to teach maths lessons. The interviewee had advanced maths subject knowledge, but perceived their inexperience of teaching maths at a ‘basic’ level to be a barrier⁵². They therefore undertook TSST to learn pedagogy and to gain practical resources and techniques to support their teaching.

“What I really wanted to do was just to be given some resources and [be] taught how to teach the basics [in maths], and just have my hand held for a couple of months to start with.”

(STEM course participant)

Similarly, there was some evidence that those interviewees (two) who were not originally from England were motivated to undertake TSST courses to become accustomed to the ways in which the education system works here. One said the TSST course was attractive as it provided information that was not accessible elsewhere, in particular knowledge on classroom management and school administration processes.

“[My motivation to participate in TSST was] to know how the [school] system works, because there are a few differences between education in [my country] and education in the UK, [things such as] class-management. Rules that apply in the UK are different in [my country].”

(MFL course participant)

Although other motivations were mentioned in interviews, the majority spoke about their desire to progress and diversify their teaching careers and improve their confidence to teach STEM and MFL subjects. In some cases, interviewees related these motivations to the fundamental objective of the programme: to address teacher shortages in target subjects. For instance, the interviewee quoted below said they had volunteered to teach Spanish, because this subject had become part of the curriculum (and the school had no one to teach it), so had undertaken TSST to improve their knowledge of Spanish grammar.

⁵² In this case, ‘basic’ means the tools required to explain simple abstract concepts such as addition, and/or subtraction.

“Language has become part of the curriculum and we didn’t have anyone in the school to teach it. I spoke Spanish, but I’d never actually had Spanish lessons. I volunteered to teach Spanish in the school. [...] I learned Spanish from the streets. As a teacher, I felt I should really have some, kind of, knowledge of the grammar.”

(MFL course participant)

Another interviewee perceived that schools typically expect MFL teachers to teach more than one language. As illustrated in the quote below, this interviewee felt that undertaking TSST in an additional subject would give them the confidence to teach a second language so as to better meet their school’s expectations and to make them more employable.

“I suppose it was a combination of [motivations]. It was the opportunity arising, but it was also that whenever I’d been in a school or supply [teaching], there’s always an expectation you’d be able to teach more than one language. A lot of teachers can actually teach French and Spanish. I didn’t know any Spanish, so I couldn’t have taught it with any confidence. It just makes you more employable and it just means that if you can’t choose your timetable and you end up teaching Spanish then at least I feel confident I can do that.”

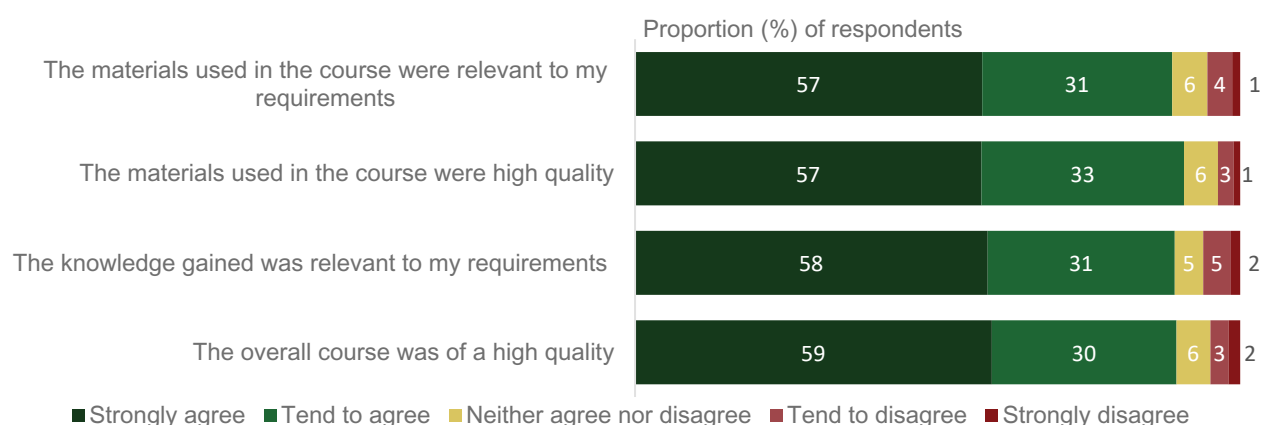
(MFL course participant)

Reflecting the range of backgrounds and motivations of teachers participating in the TSST programme, interviewees often reported differences in learning and support needs, even within the same course. For example, some MFL participants were seeking to improve their knowledge and skills in a second language while others were native speakers in the language and were undertaking TSST to develop pedagogical knowledge or learn more about teaching methods in England. Similarly, STEM TSST courses included participants who were already specialists in a STEM subject and seeking to improve knowledge in an additional STEM subject, alongside teachers who were non-STEM specialists (i.e. teaching subjects such as Physical Education or Geography). The ability of a lead school facilitator to address the resulting variety of learning and support needs seems to have been critical in determining reported satisfaction.

Respondents’ experiences of TSST

In the baseline survey, respondents were asked to indicate their level of agreement with four positive statements regarding the design of the TSST they had undertaken and, overall, over half ‘strongly agreed’ with each statement (see Figure 25).

Figure 25: To what extent do you agree or disagree with the following statements about the overall design of the TSST course you undertook? (n=980)

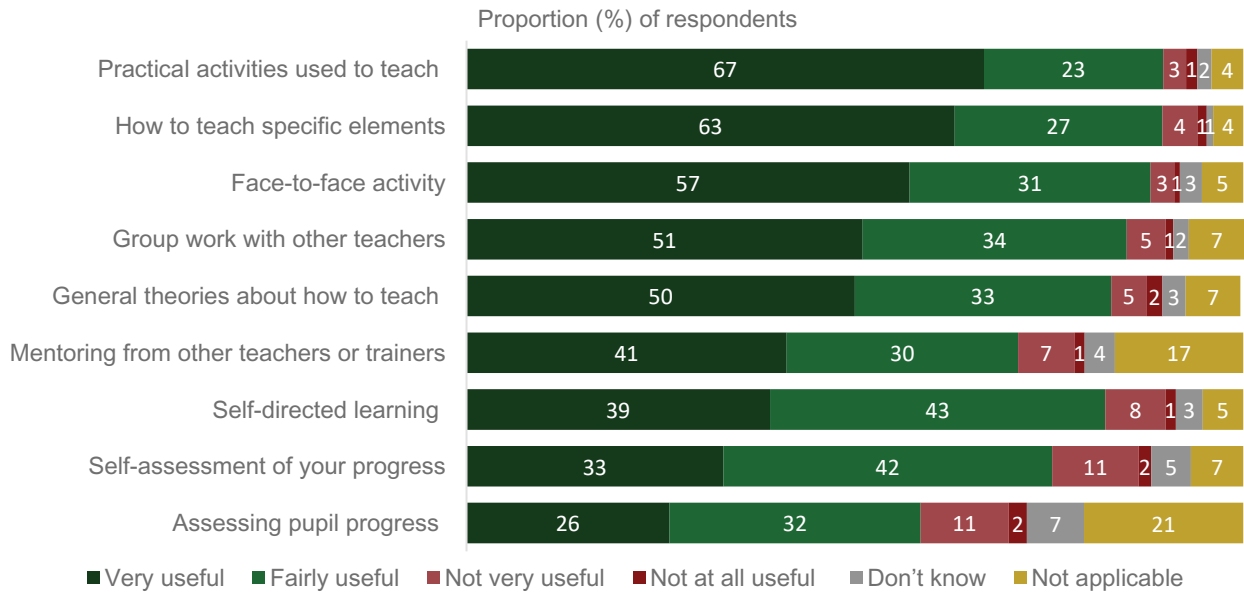


There was no statistically significant difference between the proportion of STEM and MFL respondents who strongly agreed with the statements. However, there was a difference between STEM and MFL respondents in the level of aggregate agreement with the statement ‘the overall course was of a high quality’, being 91% and 83% for STEM and MFL respectively. Small numbers (1% and 2%) ‘strongly disagreed’ with each statement. The small proportion of respondents indicating disagreement were broadly the same individuals across all statements, indicating general dissatisfaction with the TSST they undertook.

Usefulness of TSST activities

In both the baseline and follow-up surveys, respondents were asked how useful they found the activities they engaged in throughout their TSST course (see Figure 26). The majority of respondents to the baseline survey reported that all activities were ‘very’ or ‘fairly’ useful. Two-thirds (67%) reported that they found practical activities used to teach their subject ‘very useful’. Over half of respondents also indicated that they found the following aspects of their course ‘very useful’: how to teach specific elements of their subject (63%), face-to-face activity (57%) and group work with other teachers (51%). Activities less frequently reported as ‘very useful’ were self-assessment of progress (33%) and assessing pupil progress (26%).

Figure 26: How useful did you find the following activities during your TSST course? (n=980)



In the follow-up survey, respondents were asked to reflect on their experiences since completing TSST and report again on the usefulness of these activities. Again, the majority of respondents reported that all activities were ‘very’ or ‘fairly’ useful.

Respondents’ views were assessed to examine whether reported usefulness of TSST activities changed over time. This analysis indicated that, overall, all activities were reported as useful by a greater proportion of respondents at the follow-up survey compared with the baseline survey. However, *assessing pupil progress* was the only activity rated as useful by a *significantly*⁵³ greater proportion of respondents at follow-up, with 75% of respondents rating this activity as ‘fairly’ or ‘very’ useful compared with 58% at baseline. This may represent the fact that respondents had been unable to test the usefulness of this knowledge at the time of the baseline survey.

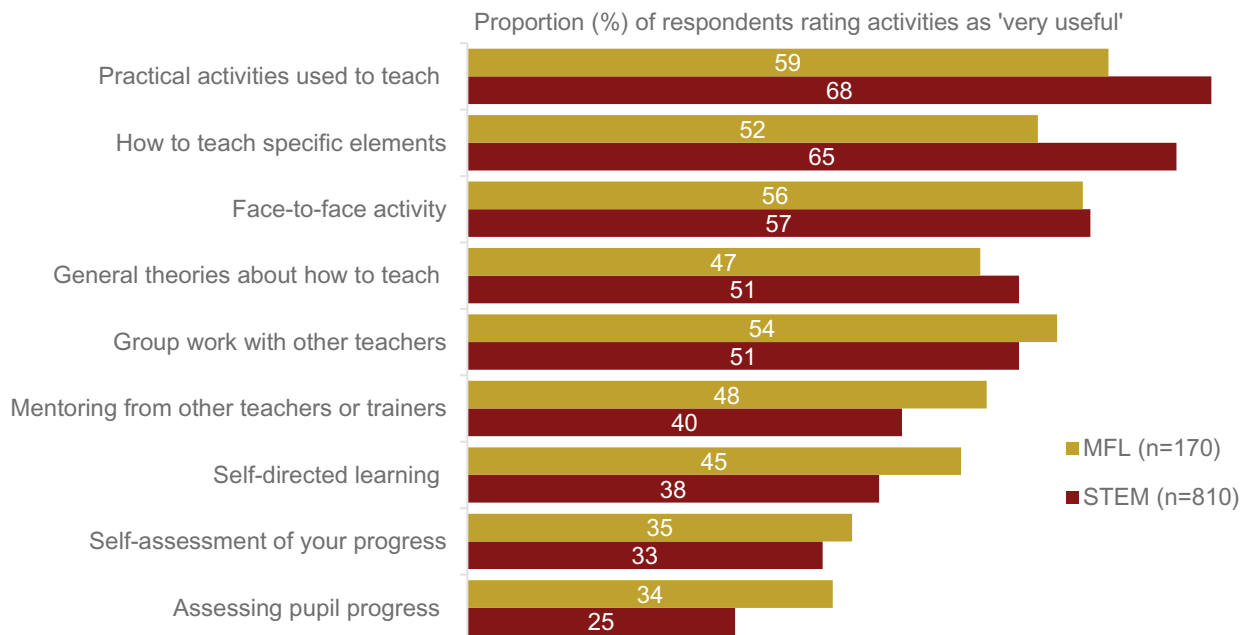
The baseline survey indicated some differences between STEM and MFL respondents in the degree to which they rated activities as ‘very useful’ (Figure 27). A significantly greater proportion of STEM respondents rated practical activities (68%) and direction on how to teach specific elements (65%) as very useful compared with MFL respondents (59% and 52% respectively). This was also echoed in interviews with lead schools (reported later in this chapter), who said that practical elements had been particularly valuable to teachers undertaking physics and maths TSST training.

In contrast, self-directed learning (MFL: 45%; STEM: 38%), mentoring from other teachers (MFL: 48%; STEM: 40%) and assessing pupil progress (MFL: 34%; STEM: 25%) were

⁵³ In the context of this report, statistical significance means that the change was unlikely to have occurred by chance between the two samples, and instead was due to a genuine change in perception over time.

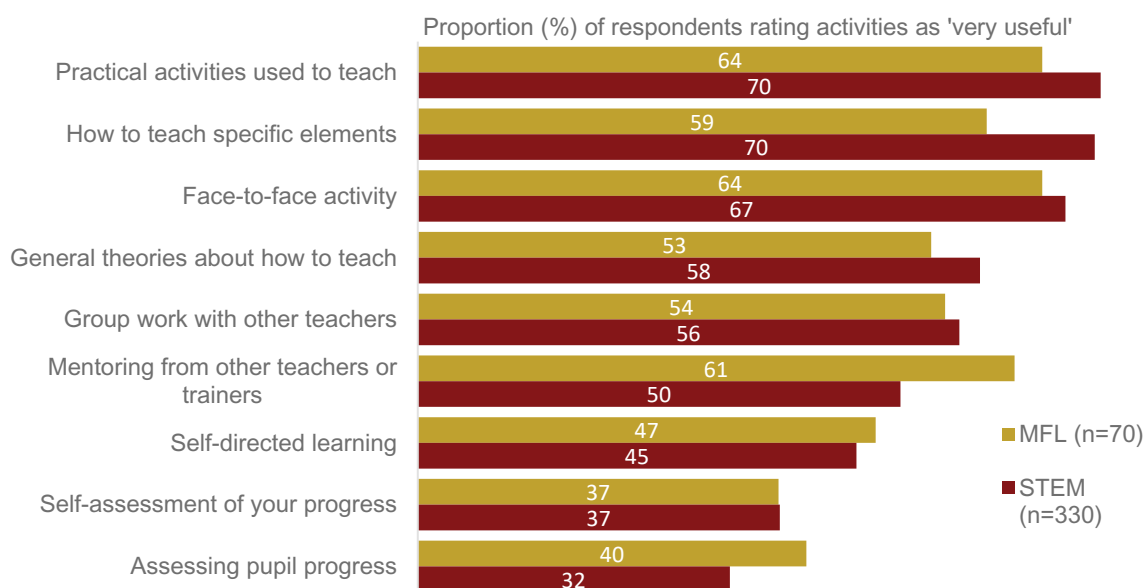
rated as 'very useful' by a greater proportion of MFL respondents compared with STEM respondents.

Figure 27: How useful did you find the following activities during your TSST course? (STEM n=810; MFL n=170)



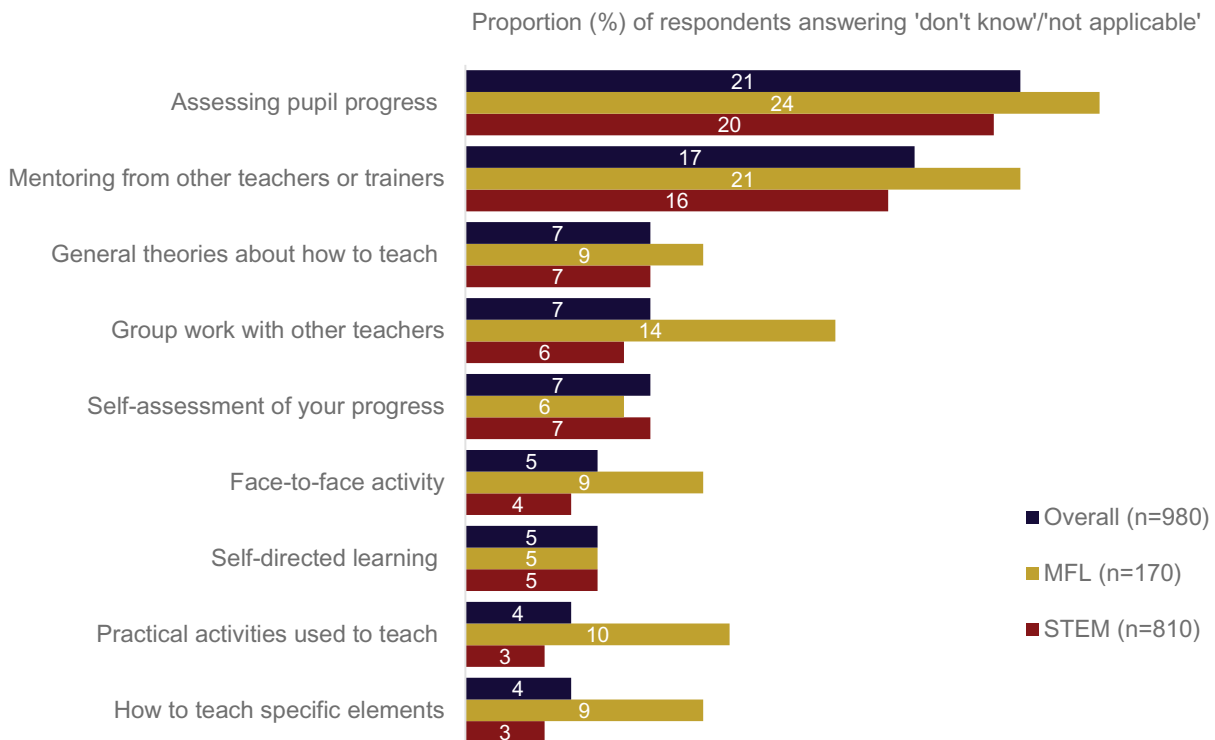
There were fewer significant differences between STEM and MFL respondents in the follow-up survey (see Figure 28). Only mentoring from other teachers (MFL: 61%; STEM: 50%) was rated as very useful by a greater proportion of MFL respondents compared with STEM respondents at follow-up.

Figure 28: Since completing TSST, how useful were each of the following activities undertaken during the course? (STEM n=330; MFL n=70)



It is interesting to note the number of participants who, immediately following completion of TSST, reported that the activities listed in Figure 29 were not applicable to their experience of TSST, notably assessing pupil progress (21%) and mentoring from other teachers or trainers (17%). This indicated the variation in design and delivery of TSST courses. Those who undertook MFL TSST were more likely to respond ‘not applicable’, suggesting fewer individuals were offered these activities among this group.

Figure 29: How useful did you find the following activities during your TSST course? (n=980; baseline)⁵⁴



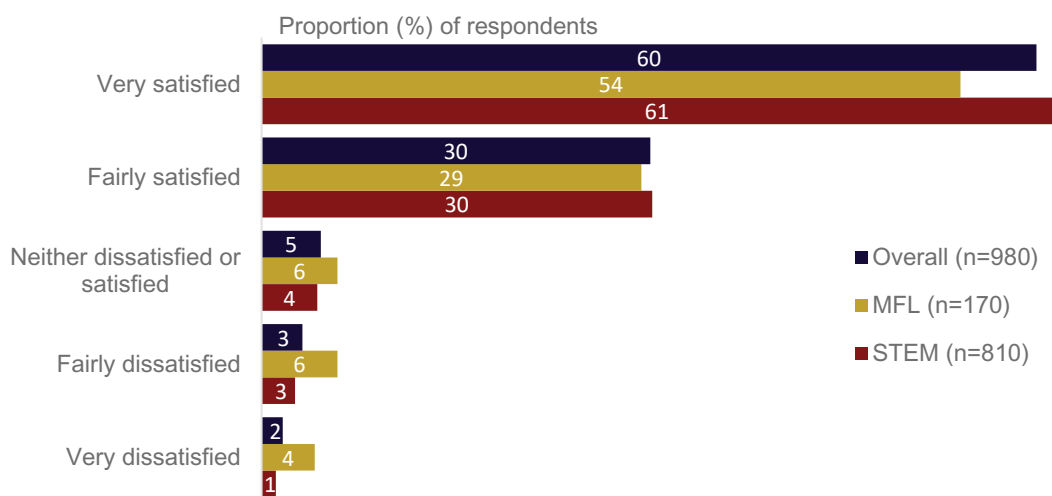
Satisfaction with TSST

Overall, the large majority (90%) of respondents participating in the baseline survey reported that they were either ‘very satisfied’ or ‘fairly satisfied’ with the knowledge gained throughout the TSST course (see Figure 30). Small numbers reported that they were either ‘very dissatisfied’ (2%) or ‘fairly dissatisfied’ (3%) with the knowledge gained through the course. The reasons offered for dissatisfaction included that there was not enough

⁵⁴ It is worth noting that no physics respondents answered ‘not applicable’ to the “practical activities used to teach” option. Only 5 (out of 208) did not say it was useful.

pedagogical content, not enough subject-specific content and, in one case, the TSST course was ‘not relevant’ to the respondent’s needs.⁵⁵

Figure 30: How satisfied or dissatisfied were you with the knowledge gained throughout the TSST course? (n=980, STEM n=810, MFL n=170)



At follow-up, survey respondents were again asked to reflect on their satisfaction with the knowledge gained through the TSST course. In line with the baseline survey findings, the majority of respondents (90%) reported that they were satisfied with the knowledge gained through TSST. A small number (5%) said that they were either ‘very dissatisfied’ or ‘fairly dissatisfied’ and this did not differ significantly between STEM and MFL respondents. There were no significant differences from baseline to follow-up survey for either of these sub-groups.

The large majority of interviewees (23) also stated that they were satisfied with their TSST course. Reasons why they were satisfied often related to the facilitators’ ability to adapt course content and delivery to meet a range of different learning needs. These included:

- that the course was well-structured with relevant components;
- that the right balance was struck between teaching, practical work and experiments (for STEM courses);
- the use of facilitative teaching methods that were interactive and allowed interviewees to ask questions directly to the facilitators and learn from other attendees’ experiences; and
- that facilitators were flexible, adapting the course delivery to meet individuals’ needs.

In contrast, for a minority (two) of interviewees who reported some dissatisfaction, the content and delivery of the course had not been able to meet their learning needs. In one case, as illustrated in the quote below, the STEM TSST interviewee reported that, while

⁵⁵ This may reflect the varying reasons for participating in TSST that are highlighted through the participant interviews discussed earlier in the chapter.

some course participants would have preferred a focus on pedagogical content, others were primarily interested in more subject-specific content, and the course did not adequately cover both. The interviewee noted that although the course adapted to other participants' needs, these were not aligned with their own specific needs. The quote highlights the importance of establishing learning needs at the start of the course, and working with participants to ensure that their priorities are addressed within the course, as far as is possible.

“I wanted something very different from the other people. So, it started off, it had, like, a strong pedagogy aspect to it, and it was teaching us how to teach the things, but as the course progressed, it became clear that the other teachers wanted to actually just know how to do [experiments] themselves. It changed as they need[ed] it to. It went the wrong direction for me, but it went in the right direction for the rest of the people who were there.”

(STEM course participant)

The other interviewee who was dissatisfied attended an MFL TSST course and also noted that it would have been useful if participants' training needs and abilities were understood by the trainers prior to the course, as detailed in the quote below. The interviewee was one of two people on their course who wanted to upskill in German, and each trainee's abilities and needs differed considerably. The course facilitators decided they could not continue offering training to both, and the interviewee was asked to continue training through observing other teachers teaching German. Consequently, this interviewee was not offered face-to-face training and support. The interviewee noted that observing others teaching German was not on a par with learning the relevant pedagogical and subject-specific knowledge required to teach German in a classroom.

“They decided, after the first session, realising it was just me and another lady who wanted to teach German and the rest were Spanish teachers, that they did a language assessment on us and it turned out that she didn't speak German at all and needed private coaching in the language. So, they realised that she and I wouldn't be able to study together, because we had completely different needs. So, instead of doing any more sessions for the German contingent, what they decided to do was just have me going to a school and observe the teachers teaching German. That was my training.”

(MFL course participant)

While interviewees were largely positive about course delivery, satisfaction with the content covered was more variable. This again highlights the challenges of addressing a range of participants' learning and support needs (specifically relating to the balance of pedagogical and subject coverage). For example, six of the interviewees who were currently teaching reported that their course covered subject-specific content in sufficient

depth to allow them to teach the subject to different year groups and abilities with confidence:

“I thought [the course content] was appropriate, it was broken up into different topics, as they appear in the GCSE curriculum, and also, we touched on how to teach these topics in Key Stage 3, as well. [The course] was structured sensibly, we knew what was coming and we could familiarise ourselves with the spec. It was pitched so we could feel confident enough to approach the topic with a top set, or students who were going to do A- level. We could modify our approach, depending on what level of students we were actually teaching.”

(STEM course participant)

In contrast, three interviewees said that there was a lack of depth in the content covered in their courses. These interviewees reported that, since the subject area was completely new to them, they did not gain enough knowledge to confidently teach the subject to a range of student abilities. Other interviewees, who were more established STEM/MFL teachers, also made similar comments.

“The theory that was covered is pretty much the foundation material. I don’t think any teacher who ever gets [a] maths teacher job will only be teaching foundation levels. So, if you get a maths teaching job, you will have to teach off that. [...] Sometimes when I go back to my TSST material for exercises or just to see what was going on, I find that it was only foundation. Higher level should be taught properly as well.”

(STEM course participant)

Nine interviewees reported that their TSST course included an online component to facilitate additional self-directed learning. Four of the interviewees whose TSST course included online components were critical of this aspect of their course, citing it as an area that required improvement. Criticisms typically included:

- the interface was not user friendly;
- the content and exercises did not align with course material, which resulted in interviewees struggling to complete the exercises; and
- the online content was not relevant to the curriculum, so interviewees questioned how completing the exercises would contribute to their development.

There were variations in the approach course providers took to assess participants. Some interviewees (five STEM, one MFL) stated that they had undertaken baseline assessments. One interviewee stated that undertaking these assessments had allowed the facilitators to identify knowledge gaps and then address them throughout the course.

“What [trainers] get from [us sitting assessments], is [that they identified] knowledge gaps to what they were going to cover on the course. They knew

what we were happy with, because there were a few easy ones to start with based on the results.”

(STEM course participant)

There were no specific similarities or differences between MFL and STEM courses in terms of ongoing assessment. Some providers required course participants to complete formal written assessments (seven) while others required course participants to complete online assessments, a combination of formal tests and informal activities (six). Three interviewees reported that presentations also formed part of their informal assessment. Interviewees who were required to undertake formal assessments (baseline and continual) found them useful, since courses were tailored in content and knowledge gaps could be addressed. One interviewee stated that completing assessments increased their confidence to teach the subject and provided confirmation that they had understood the content covered in the course correctly.

“I lack confidence a bit with my physics ability and [the tests] helped to reinforce it and show me that I actually did have a good understanding [of the content covered in the course].”

(STEM course participant)

Interviewees reported that there was little in the way of formalised support, although for most the facilitator was available to contact via email throughout the course. The majority of interviewees (21) had no designated mentor for support. Some (seven) would have preferred for the support to be more formalised, with a mentor provided by the course provider, assigned to them for the duration of the course.

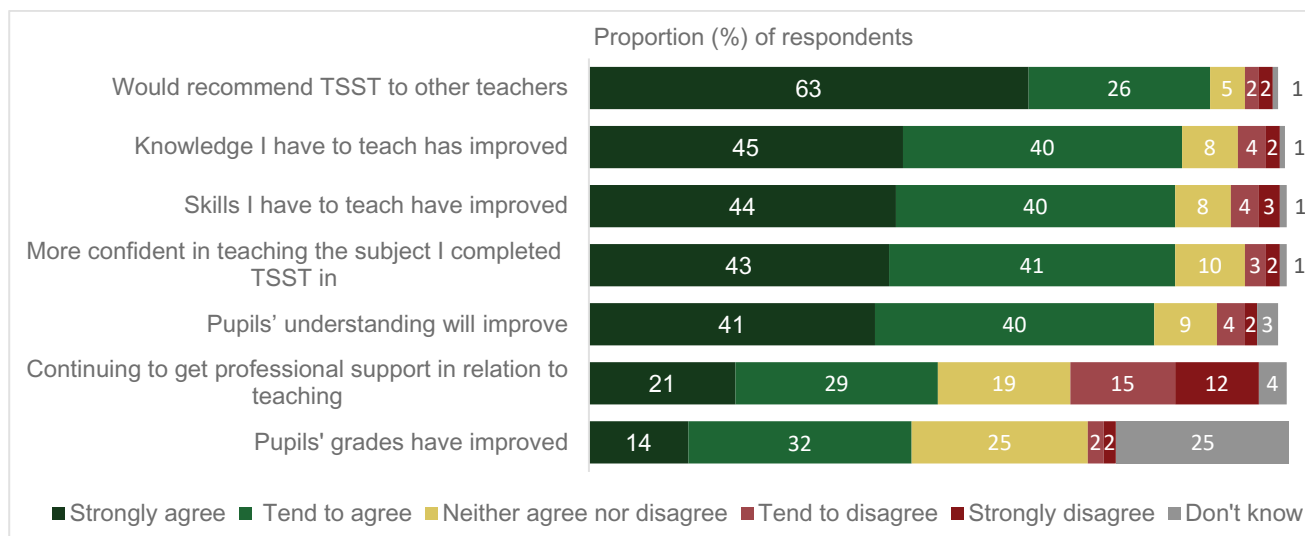
“If you’re returning to teaching to teach maths, you’re supposed to be assigned a mentor and it didn’t happen, and when I followed it up and when I told them that it didn’t happen it still didn’t happen.”

(STEM course participant)

Impact of the TSST course

Survey respondents were asked about the extent to which they agreed or disagreed with a series of statements, to ascertain the perceived impact of the TSST courses (Figure 31).

Figure 31: To what extent do you agree or disagree with the following statements now that you have completed the TSST course? (n=980)



For the majority in the baseline survey, the TSST course was perceived to have had a positive impact on teaching. For example, over four-fifths (84%) of respondents ‘strongly agreed’ or ‘tended to agree’ with the statement that they felt more confident in teaching the subject they completed TSST in. A similar proportion ‘strongly agreed’ or ‘tended to agree’ with the statements that their knowledge to teach the TSST subject had improved (85%) and that their skills to teach the TSST subject had improved as a result of the training (84%). Around four-fifths of respondents (81%) also ‘strongly agreed’ or ‘tended to agree’ with the statement that undertaking the TSST course would result in improvements in pupils’ understanding of the subject. Small numbers (2-3%) ‘strongly disagreed’ with these statements.

Differences between STEM and MFL respondents for these statements were between 5-10%, with a significantly greater proportion of STEM respondents tending to ‘agree’ or ‘strongly agree’ to the statements compared with MFL respondents.

Almost nine-tenths of survey respondents either ‘strongly agreed’ (63%) or ‘tended to agree’ (26%) with the statement that they would recommend TSST to other teachers interested in teaching the subject they completed their training in. Although proportions were high for both, significantly greater proportion of STEM respondents ‘strongly agreed’ or ‘tended to agree’ (91%) with this statement compared with MFL (84%) respondents. There was some evidence from the interviews that suggests that those undertaking MFL TSST did so to address a greater range of needs than for STEM TSST participants, presenting a challenge to deliverers in meeting all course participants' needs through the programme and which may partially explain this discrepancy

Half of survey respondents either ‘strongly agreed’ (21%) or ‘tended to agree’ (29%) that they were continuing to get professional support in relation to their TSST subject. A quarter of respondents (27%) ‘strongly disagreed’ or ‘tended to disagree’, however, indicating that there may be room for further support to those teaching TSST subjects.

There was a statistically significant difference between the proportion of STEM (52%) and MFL (39%) respondents who 'strongly agreed' or 'tended to agree' about the level of professional support they had since received. This difference could arise simply because there were a larger proportion of returning teachers among MFL TSST course participants without the same in-school support or that the nature of the subject meant the teachers required less professional support to begin with. As the pedagogy of teaching languages is transferrable, a teacher who is a specialist in one language could have undertaken TSST primarily to upskill in the content of another language (and therefore may have required less ongoing support).

Interviewees elaborated further on the benefits and impact of TSST during the interviews. Six interviewees said they felt they had gained enough subject-specific and pedagogical knowledge to allow them to teach the subject they had specialised in with confidence.

"The obvious [impact] is that I can walk into a classroom now and if I'm suddenly presented with a class where I'm teaching Spanish, I have the confidence [to teach it] now. I've never taught above my level, because I've stuck to Key Stage 3 [when] supply [teaching]. If a school needs two or three hours of Spanish [teaching], I'm absolutely fine [to teach it]."

(MFL course participant)

One of these interviewees mentioned that the course had increased their confidence by consolidating the knowledge they had gained; they felt that first-hand experience in conducting practical demonstrations (i.e. experiments) and having the opportunity to network with other teachers was especially useful.

"I think [in terms of impact], [I gained] greater confidence, in a subject that none of us were feeling particularly confident about [teaching]. Sharing expertise in practical demonstrations and use of equipment, and finding resources [was also useful]."

(STEM course participant)

Interviewees also noted wider benefits of completing a TSST course, such as utilising knowledge and methodologies taught in the course to teach other subjects. Some felt that the course provided an opportunity to network with other participants and, in the case of those who undertook MFL TSST courses, the opportunity to practice language skills.

"I do feel [the course has] contributed to my professional development, I do feel some of the techniques and methodologies we looked at have been useful in the history classroom, when I am teaching about subject-specific vocabulary. So, in the English language there are still words the kids haven't come across. So, that has helped in terms of promoting literacy in my subject."

(MFL course participant)

“Networking [during the course has been important]. Practicing speaking Spanish and understanding Spanish. There’s no other forum for total immersion.”

(MFL course participant)

Overall, interviewees found the courses helpful, reporting that TSST had addressed their needs and motivations for participation appropriately. For instance, those returning to teaching found consolidating their knowledge, and thereby increasing their confidence, beneficial. Pedagogical knowledge was deemed to be particularly beneficial for those who were seeking information about how to teach subject-specific content and for teachers who deemed themselves to be novices in the subject area (e.g. non STEM teachers upskilling in a STEM subject, and NQTs).

“[The extent to which the course is a success] will vary enormously depending on what stage your teaching career is at [...] some people on the course were looking to return to teaching after a long gap, and wanted to boost their confidence. Others were looking to add a modern language as a teaching subject, because perhaps they hadn’t taught it before, although they were qualified to teach other things. I imagine the pedagogical input would’ve been extremely useful for them, because teaching languages is different to teaching other subjects.”

(MFL course participant)

International teachers found curriculum planning and learning about the English school system to be particularly beneficial.

“For me, [the course] helped me to understand much better what is behind planning and organising a curriculum in languages, and also the system the Department for Education wants schools to have. It was very good in that aspect, because I didn’t have any idea.”

(MFL course participant)

Expected outcomes of TSST (in terms of career progression and teaching subject specialisms) had not been met for a minority of respondents, due to a lack of teaching demand in those subjects within their schools. One qualitative interviewee indicated that, having undertaken TSST because MFL was being introduced in their school’s curriculum, that school subsequently made changes as it became an academy and as a result there were no opportunities to teach languages. In another example, the interviewee undertook TSST in order to improve their opportunities in teaching maths, since they felt history was no longer as popular a choice among pupils, but the school they were employed by did not require additional maths teachers. However, the interviewee did report feeling confident enough to teach maths since completing the course, should this be required of them in the future.

“It made me feel like I would be confident enough to teach maths. That’s not needed of me at the minute, so, I’ve done it and now I feel like, yes, it was worthwhile for me and I’ve got some enjoyment out of it, but it’s not been particularly useful to the school. They just don’t need maths teachers at the minute.”

(STEM course participant)

While many interviewees (eight) did not suggest any improvements needed to be made to their TSST courses, several improvements were suggested by others, although some may not necessarily be in keeping with the objectives of TSST. Many suggestions were related to courses not meeting individuals’ learning and support needs, which - as noted previously - varied significantly among course participants. The most frequently-cited suggestion (by five interviewees) was for the course to be longer so that the content could be more in-depth. Several commented that the content covered was geared at a foundation level. Some interviewees felt that lengthening the duration of the course would enable more in-depth subject-specific knowledge to be covered, and would result in participants feeling more comfortable about teaching the subjects they upskilled in to different year groups.

Another suggested improvement was more recap sessions to consolidate learning. Others felt that online components of courses could be improved to make them more user friendly and that there was a need to align online content with the content being taught in face-to-face sessions. Four interviewees said that further support throughout the course would have been beneficial. One interviewee felt that it would be beneficial if there was more of a focus on classroom management, while another who was unable to undertake classroom observations acknowledged that the opportunity to do so should be built into the course structure.

Some interviewees had expectations that completing TSST would help them to progress in their career or secure a teaching post. One interviewee recognised that, although it was not a specific objective of the course, mentoring for employability on course completion may have helped them to secure a teaching post. Another interviewee felt that a follow-up six months after the course (with the participants) to learn how others have utilised their learning would have been beneficial.

The interviews showed that the TSST programme had had a positive impact for the majority (10) of the MFL respondents. At the time of interview, half (five) of these respondents had gone on to teach their TSST language subject⁵⁶ and all felt confident in their ability to apply the knowledge they had acquired from the course to their teaching. One interviewee mentioned that, by directly implementing techniques learnt on the course,

⁵⁶ Respondents undertook TSST between September 2016 and September 2017, and were interviewed in December 2017 and January 2018.

they had received positive feedback from an Ofsted inspection. A few noted that as a result of the TSST courses they had been able to progress their career, by specialising in other languages. One interviewee was a private tutor who said that attending the course led them to decide to teach in schools, since it had updated their knowledge on the English school system. Another interviewee noted that networking opportunities during the training had opened doors for them and they had since attended a national languages exhibition.

Only two MFL interviewees reported no tangible impact as a result of completing the course. One stated that the language offer had changed at their school, which had reduced opportunities to teach the subject they had specialised in, while the other, who was returning to teaching, had so far struggled to find opportunities for single language teachers since they had not upskilled in a second language.

Reported impact was more varied for STEM interviewees. Only four (out of 15) began or increased the number of hours they were teaching in the subject they had undertaken TSST in (all were either returning teachers or undertaking TSST due to a lack of specialist staff at their schools). Five STEM interviewees who were already teaching their TSST subject reported that the number of hours had not changed. However, all indicated that the TSST course had increased their confidence and ability to teach that subject. One interviewee said that, if asked to teach more hours in the subject they had specialised in, then they would be comfortable in doing so.

“If they say, ‘there’s this physics group, its set 2 or 1, are you happy to do it?’ I’ll be, ‘Well, yes, that’s absolutely no trouble.’ Before I’d be, ‘Well, are you sure?’ Now, I know that I have got the capability to do the higher group. Say, if I do leave this school, it’s definitely a string to my bow of saying, ‘Do you know what? Yes, I can teach physics confidently up to such and such an age.’”

(STEM course participant)

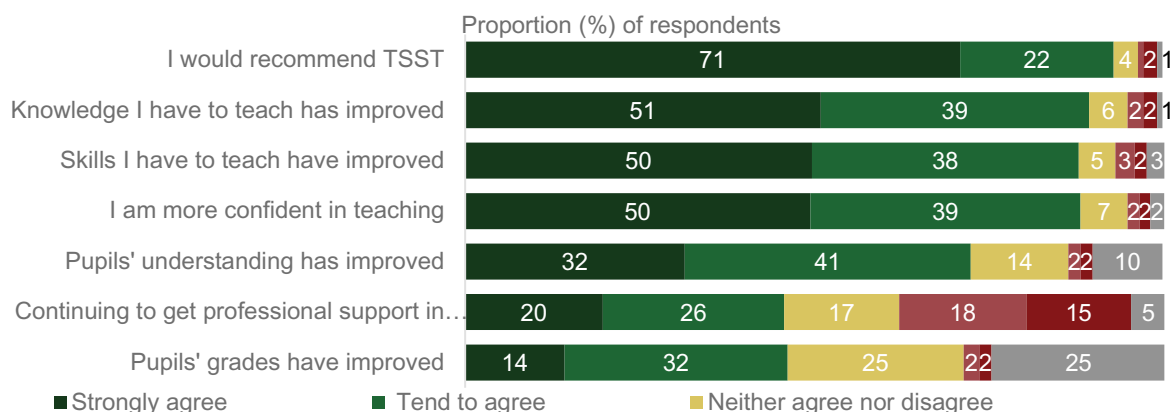
Only one interviewee who undertook a STEM TSST course indicated that the number of hours they were teaching their TSST subject had decreased, and that this was by their own request. However they also noted that the quality of their teaching and their confidence to teach maths had improved following the completion of TSST. The remaining five STEM interviewees had not been successful in securing a teaching post, changed or put their plans to return to teaching on hold, or were no longer required to teach their TSST subject by their school.

Impact of TSST at follow-up

At follow-up, survey respondents were again asked to reflect on the extent to which TSST had impacted their confidence, understanding and skills (see Figure 32). Results were generally in line with the baseline survey; for the majority, the positive impact of the TSST course was maintained. For example, almost nine-tenths of respondents ‘strongly agreed’

(50%) or 'tended to agree' (39%) with the statement that they felt more confident in teaching the subject in which they had completed TSST. A similar proportion 'strongly agreed' (51%) or 'tended to agree' (39%) with the statements that their *knowledge* to teach the TSST subject had improved, and 'strongly agreed' (50%) or 'tended to agree' (38%) that their *skills* to teach the TSST subject had improved as a result of the training. There were no significant differences between STEM and MFL respondents for these statements.

Figure 32: Reflecting on your experiences since completing TSST, to what extent do you agree or disagree with the following statements? (n=400)



Three-quarters of respondents also 'strongly agreed' (32%) or 'tended to agree' (41%) with the statement that undertaking the TSST course had resulted in improvements in pupils' understanding of the subject. However, there was a significant difference here between STEM and MFL respondents, with 77% of STEM respondents reporting that they 'strongly agreed' (34%) or 'tended to agree' (43%) with this statement, while for MFL respondents, the figures were 20% and 33% respectively. A minority (2%) of respondents strongly disagreed with these four statements. As previously, the small proportion of respondents indicating disagreement were broadly the same individuals across these statements.

Respondents to the follow-up survey reported the degree to which they agreed with the statement that undertaking TSST had resulted in an improvement in pupils' grades. Overall, almost half of respondents (46%) agreed with this statement (14% 'strongly agreed' and 32% 'tended to agree'). However, a significantly greater proportion of STEM respondents 'strongly agreed' (16%) or 'tended to agree' (34%) with this statement compared with MFL respondents (7% and 23% respectively).

Overall, this suggests that many teachers believe that they have been able to effectively translate their TSST learning in the classroom to affect pupils' performance, however note that nearly a quarter of respondents to this question answered 'don't know' or 'not applicable' for this statement. In-line with the baseline survey findings, over nine-tenths of respondents 'strongly agreed' (71%) or 'tended to agree' (22%) with the statement that they would recommend TSST to other teachers interested in teaching the subject they completed their training in.

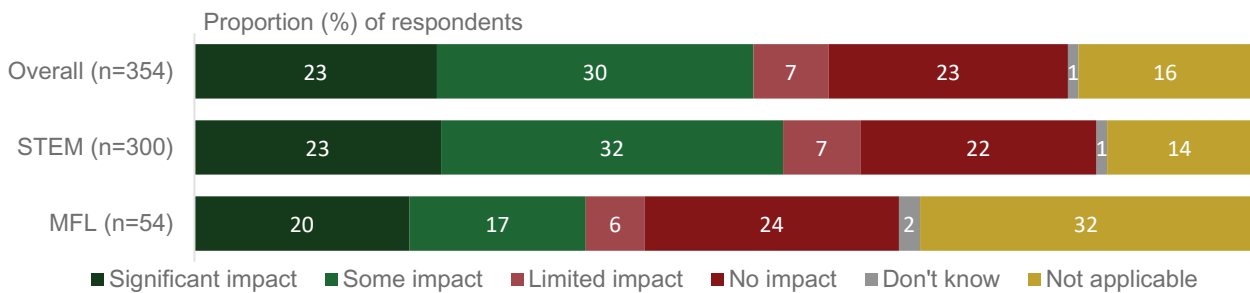
At follow-up, almost half (46%) of respondents 'strongly agreed' (20%) or 'tended to agree' (26%) with the statement that they are continuing to get professional support in relation to their TSST subject, compared with 21% and 29%, respectively, at baseline. A third (33%) of respondents 'strongly disagreed' (15%) or 'tended to disagree' (18%) with this statement at follow-up, compared to 12% and 15%, respectively, at baseline. Overall, the proportional *distribution* of responses at follow-up is similar to those of the baseline survey. However, in contrast to the baseline survey (where STEM respondents were significantly more likely to continue to get professional support), at follow-up, there was no significant difference between the proportion of STEM (47%) and MFL (39%) respondents who 'strongly agreed' or 'tended to agree' with this statement. This indicates that at follow-up, STEM and MFL respondents were equally likely to be continuing to get professional support.

Responsibility for TSST subject

At follow-up, respondents were asked to indicate the extent to which TSST had affected the level of responsibility respondents had for the delivery of their TSST subject (see Figure 33). Over half of respondents reported that undertaking TSST had had 'some' (30%) or a 'significant' impact (23%) on the level of responsibility they had for delivery of their TSST subject. Only 7% reported limited impact and just under a quarter (23%) reported no impact. The latter implies that some teachers may already have been given additional responsibilities relating to their TSST subject, which had prompted them to undertake the course.

A significantly smaller proportion of MFL respondents reported 'some' impact (17%) compared with STEM respondents (32%), while a significantly greater proportion of MFL respondents reported that this was not applicable (32%) compared with STEM respondents (14%). This may be due to a greater proportion of returning MFL teachers, who were not in a teaching role at the time of the TSST. Alternatively, given that schools will generally employ fewer MFL teachers compared with the number of science and/or technology teachers (i.e. STEM), it may be that MFL teachers *already* hold substantial responsibility for the delivery of their subject, and as such, there are fewer opportunities for MFL teachers to increase this level of responsibility.

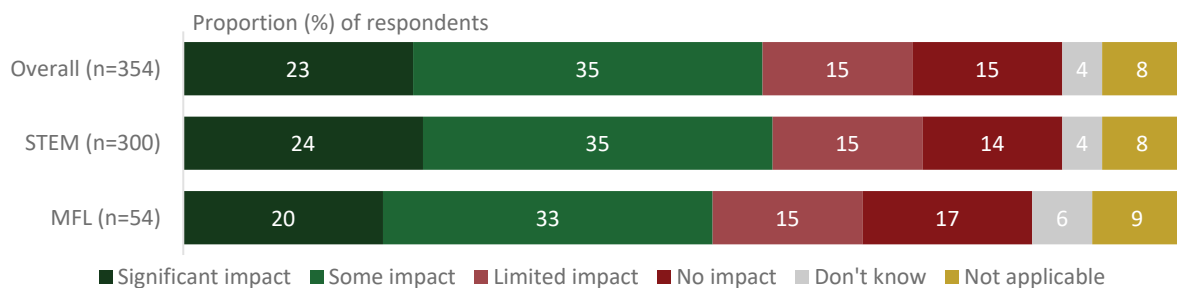
Figure 33: Since completing the training, to what extent, if any has the TSST had a positive impact on the level of responsibility that you have for the delivery of [subject] within the school in which you teach? (n=354)⁵⁷



Role and intention to undertake further professional development

At follow-up, respondents who were still teaching were asked to indicate to what extent TSST had affected their role in terms of their prospects for career progression (see Figure 34). Almost three-fifths reported that TSST had had ‘some’ (35%) or ‘significant’ positive impact (23%) in terms of career progression. Just under a third reported that TSST had ‘limited’ (15%) or ‘no’ impact (15%) on their role. Overall, the results suggest that for the majority, TSST provides an opportunity to further their career prospects. However, a sizeable minority report that undertaking TSST has had limited or no impact on their role.

Figure 34: Since completing the training, to what extent, if any, has the TSST had a positive impact on your role (i.e., teaching position) in terms of prospects for career progression? (n=354)

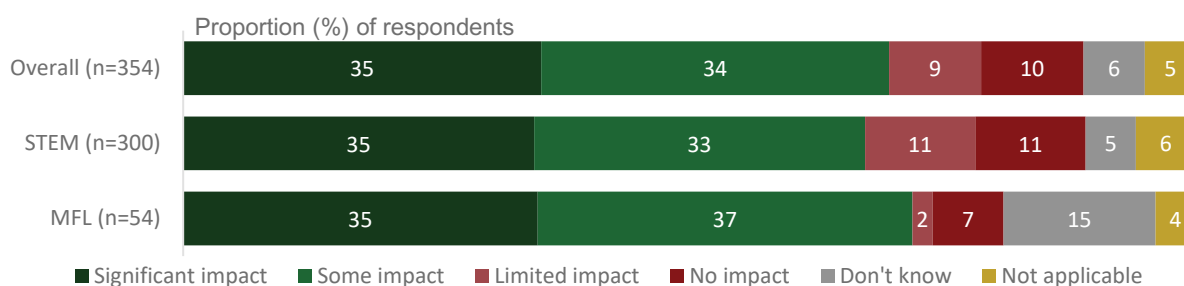


Respondents were subsequently asked about the impact of TSST on their intention to undertake further professional development (see Figure 35). Over two-thirds (69%) reported that TSST had had ‘some’ (34%); or a ‘significant’ positive impact (35%) on their intention to undertake further professional development. A fifth (19%) reported ‘limited’ (9%) or ‘no’ impact (10%). There were no statistically significant differences between STEM and MFL respondents. These findings suggest that for the majority, undertaking TSST has had a positive impact on teachers’ intentions to continue to engage in professional development. This may be particularly beneficial for returning teachers and

⁵⁷ Of the 400 respondents who completed the pre and post surveys, 46 reported not to be employed by the teaching profession, resulting in a base size of 354.

teachers who, for whatever reason, may have become disengaged with ongoing development.

Figure 35: Since completing the training, to what extent, if any, has the TSST had a positive impact on your intention to undertake further professional development? (n=354)

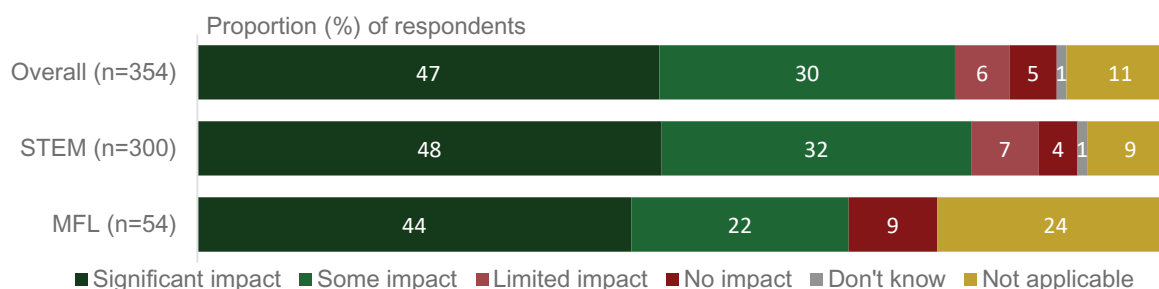


Enjoyment of teaching

Three-quarters of respondents reported that undertaking TSST had ‘some’ (30%) or ‘significant’ positive impact (47%) on the extent to which they enjoy teaching their TSST subject (Figure 36). Only one-tenth of respondents reported ‘limited’ (6%) or ‘no’ impact (5%). There were no statistically significant differences between STEM and MFL respondents in the level to which they agreed that TSST had had a positive impact, although all physics teachers recognised at least ‘a little impact’ from TSST. However, MFL respondents were significantly more likely to rate this at ‘not applicable’ (24%) compared with STEM respondents (9%), presumably due to the higher proportions of returners among the MFL group who would not have been teaching prior to the course.

Responses to this statement are particularly positive. This is encouraging, given that teachers who enjoy delivering a particular subject, combined with the belief that they have the skills, knowledge and confidence to deliver the subject well, are likely to demonstrate this to their pupils and may consequently elicit improved engagement and performance from their pupils. This was reflected in the earlier findings on the expected positive impact on pupils as a result of the TSST courses.

Figure 36: Since completing the training, to what extent, if any, has the TSST had a positive impact on the extent to which you enjoy teaching [TSST subject]? (n=354)⁵⁸

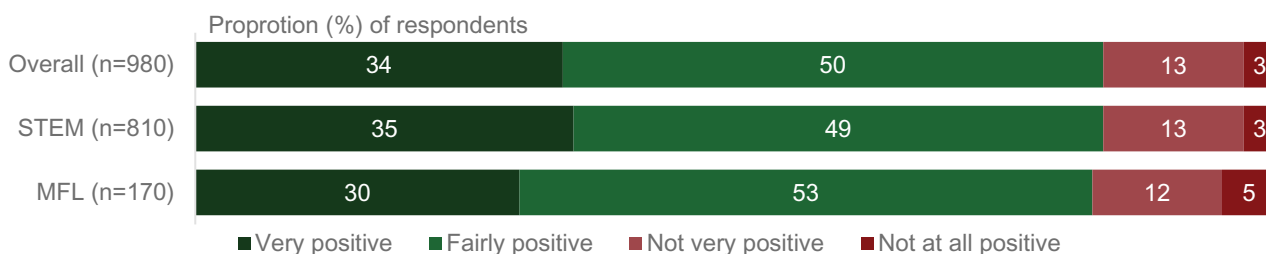


⁵⁸ Of the 400 respondents who completed the pre and post surveys, 46 reported not to be employed by the teaching profession, resulting in a base size of 354.

Feelings towards teaching

In the baseline survey, the majority of respondents indicated that they felt ‘fairly’ (50%) or ‘very’ (34%) positive about a career in teaching (see Figure 37). Only 3% reported that they did not feel positive about their career in teaching.

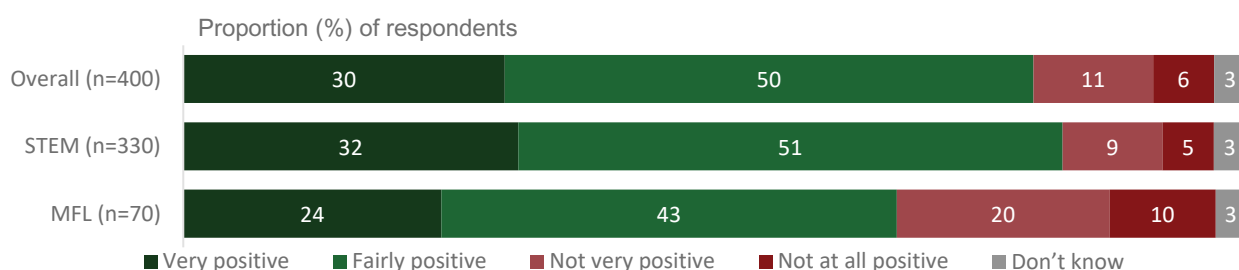
Figure 37: How do you feel about your career in teaching? (baseline) (n=980)



At follow-up, respondents were asked again how they felt towards their career in teaching (see STEM respondents, also by 16 percentage points. Figure 38). In line with the baseline survey, at follow-up the majority of respondents felt ‘fairly’ (50%) or ‘very’ (30%) positive towards their career in teaching.

Compared to the baseline survey, the overall proportion of MFL respondents indicating that they felt positive (either ‘fairly’ or ‘very positive’) fell by 16 percentage points. At follow up, MFL respondents were significantly less positive about their teaching career than STEM respondents, also by 16 percentage points⁵⁹.

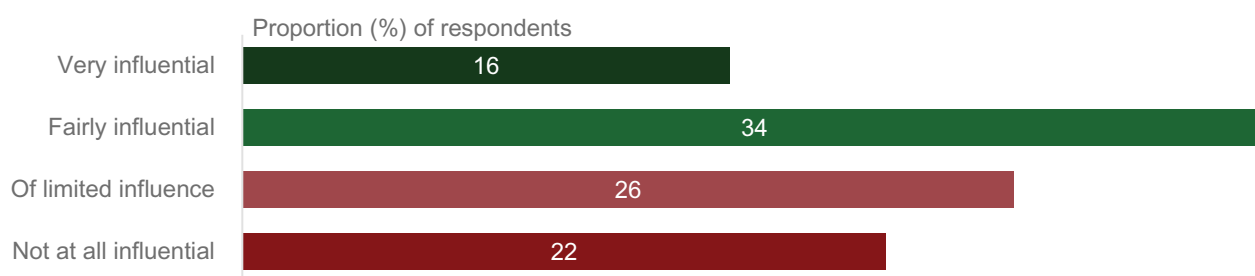
Figure 38: How do you feel about your career in teaching? (follow-up) (n=400)



Respondents were also asked in the baseline survey how influential TSST was on their feelings towards teaching (see Figure 39). Half the respondents reported the course to be either ‘very’ (16%) or ‘fairly’ (34%) influential on their feelings towards teaching. However, almost as many respondents stated that the TSST course had ‘limited’ influence (26%) or was ‘not at all’ influential (22%) on their feelings towards teaching. There were no significant differences between STEM and MFL respondents in the influence of TSST on feelings towards teaching.

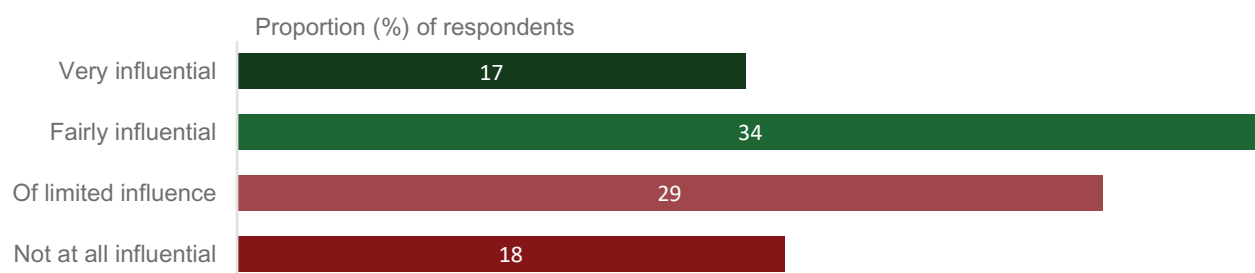
⁵⁹ Note the relatively small base size of MFL respondents at follow up (n=70) meaning this finding should be treated with caution.

Figure 39: How influential is the TSST course on your current feelings towards teaching (baseline)?
(n=980)



Consistent with the findings from the baseline survey, half of respondents reported at follow-up that TSST was either ‘very’ (17%) or ‘fairly’ (34%) influential on their feelings towards teaching (see Figure 40). Taken together, almost as many respondents reported that TSST had ‘limited’ influence (29%) or that the course was ‘not at all’ influential (18%) on their feelings towards teaching. These findings suggest that there was no clear pattern about how TSST influenced respondents’ feelings towards teaching; while for some it had a strong influence, for around a fifth (at both baseline and follow-up) it had no impact.

Figure 40: How influential is the TSST course on your current feelings towards teaching (follow-up)?
(n=388)



7.5. Findings from TSST lead schools

Table 4 includes a breakdown of the TSST subjects offered by lead schools, and shows that the survey population (at the time of the fieldwork) was broadly representative of the overall sample.

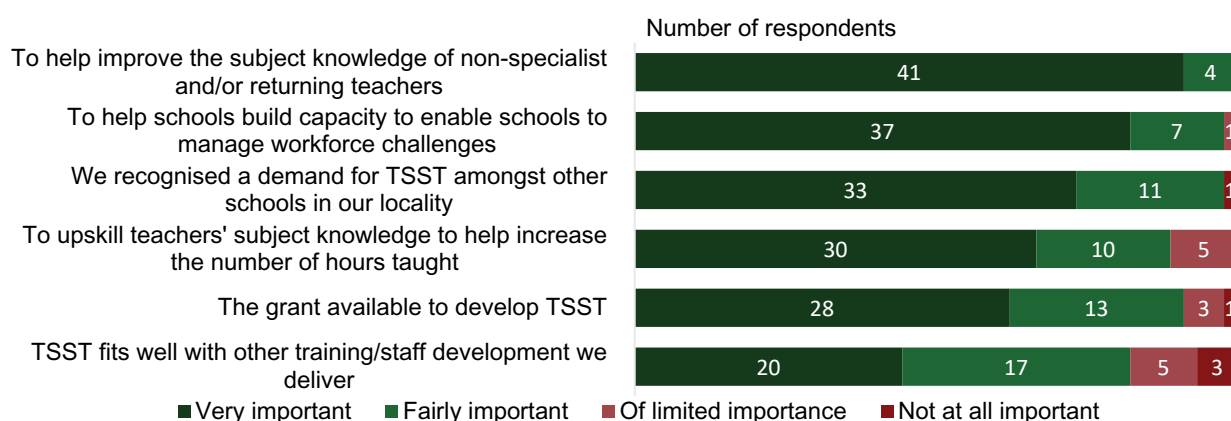
Table 4: Breakdown of survey respondents by their school's TSST offering

Training offered by lead school	Sample		Survey	
	n	%	n	%
Physics only	12	10%	6	13%
Maths only	31	26%	11	24%
MFL only	21	18%	10	22%
Physics and maths only	29	25%	9	20%
Physics and MFL only	0	0%	0	0%
Maths and MFL only	5	4%	1	2%
Physics, maths and MFL	19	16%	8	18%
Total	117		45	

Becoming a lead school

Respondents were asked to rate the importance of various motivations in their schools' decision to participate in the TSST programme. The majority of survey respondents reported that all of the motivation options presented were 'very important' or 'fairly important' in their schools' decision to design and deliver TSST (Figure 41). However, improvement of the subject knowledge of non-specialist and/or returning teachers was the most consistently influential reason (rated as 'very important' by 41 respondents, and 'fairly important' by the remaining four respondents). Similarly, all interviewees made reference to the difficulty in recruiting STEM/MFL subject specialist teachers as a motivating factor in becoming a TSST lead school. Building capacity to enable their own school to manage workforce challenges and recognition of a demand for TSST among other local schools were also important to all except one respondent in each case.

Figure 41: How important, if at all, were the following in your school's decision to make an application to design and deliver TSST? (n=45)



Almost all (nine) of the lead school in-depth interviewees said that the application process was smooth and relatively straightforward. One interviewee did not think the process would have been as easy to manage had they not already been experienced in working with outside agencies. A small number (three) noted that although the application forms were straightforward, they did encounter problems with other aspects of the process such as the timing of decisions, notifications and funding payments. However, all of these interviewees added that these problems had been overcome by the introduction of frameworks and additional support, and that the processes had, therefore, improved from year to year.

“The main issue was funding as the decision isn't made till June/July... the timetables in schools are already sorted by then. It's very difficult for the school to free up time for me to deliver a course when it's not fully confirmed financially that the funding will be in place for me to do that.”

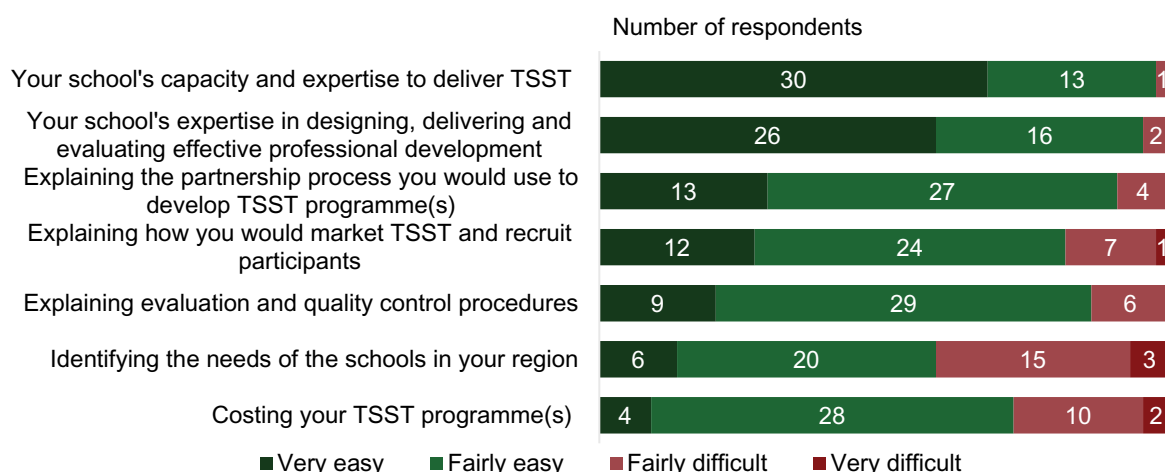
(Head of Science)

“The start-up meetings are now in the summer, and that whole process is on a much more well-established path of dates, roughly the same each year, so everybody knows what's coming. Frameworks have been issued as well. That's made a big difference.”

(Programme Co-ordinator)

Figure 42 explores some of the challenges schools encountered in providing evidence to support their applications. The majority (30) found it 'very easy' to evidence their school's capacity and expertise to deliver TSST and a further 13 reported that this had been 'fairly easy'. Most (26) also found it 'very easy' to demonstrate their school's expertise in designing, delivering and evaluating effective professional development, while a further 16 described it as 'fairly easy'.

Figure 42: How difficult or easy was it to provide the following categories of evidence to support your application? (n=44)



Qualitatively, all interviewees said their schools were in a strong position to deliver the programme, because of their existing expertise and/or alignment with their own objectives and activities as teacher training schools/centres.

“We applied because we thought it was something that we could do well. As well as being a teaching school, we're a Maths Hub. We felt we were in a really good place to put together some training that would be of use to the local area and beyond. As well as that, we've got quite a few maths SLEs [Specialist Leaders of Education], so we thought that would be something they would be able to do and do well.”

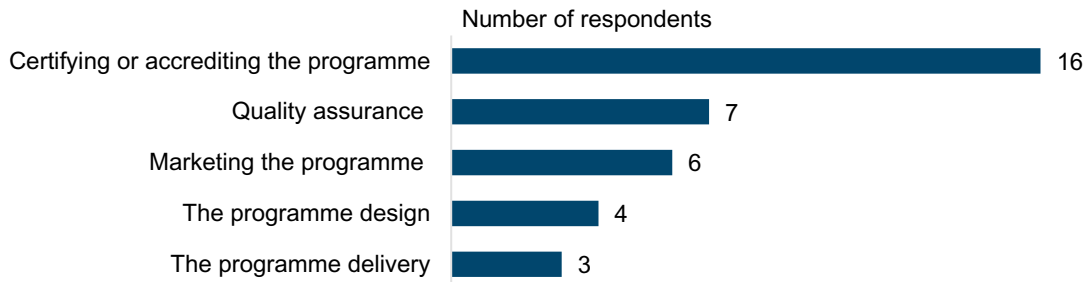
(Teaching School Director)

Survey respondents were more likely to report that they had experienced difficulties in identifying the needs of schools within their region (which was described as ‘very difficult’ by three and ‘fairly difficult’ by 15 respondents), and in costing their TSST programme(s) (rated as ‘very difficult’ by two and ‘fairly difficult’ by 10).

Supporting organisations

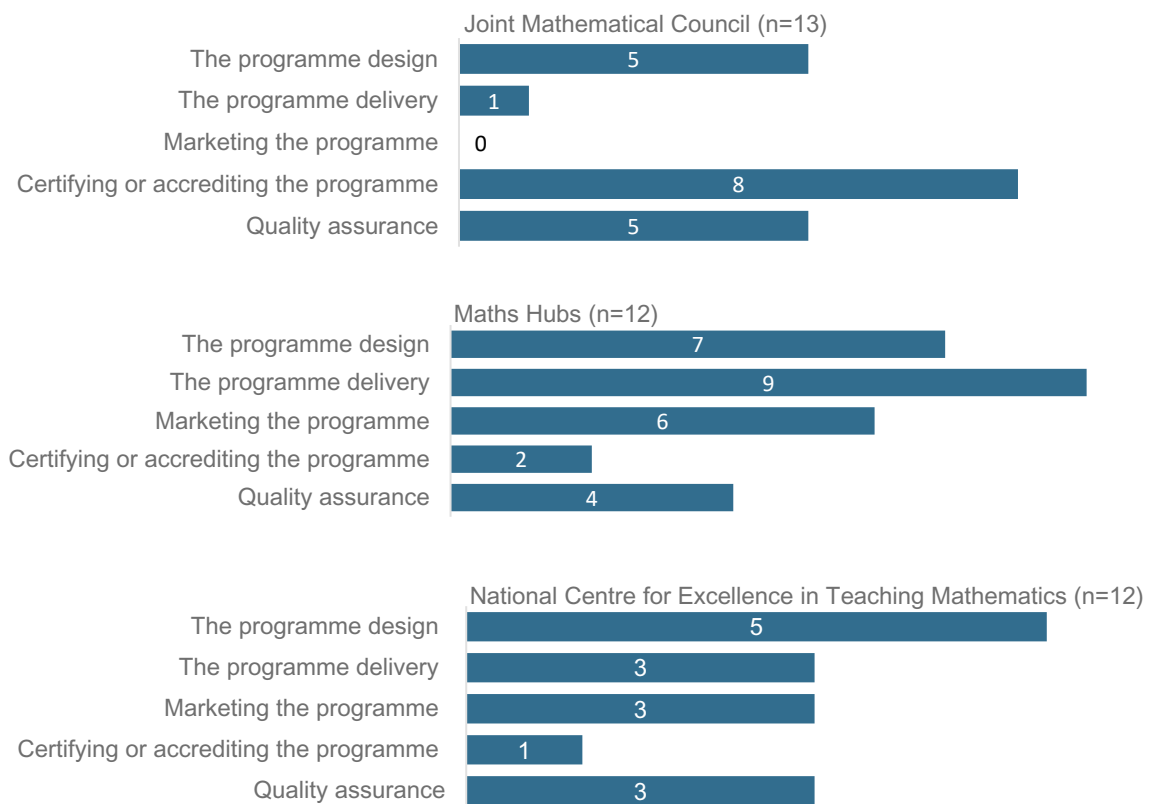
Of the 23 lead schools who were surveyed that offered physics TSST courses, 17 collaborated with the Institute of Physics to design and deliver their TSST programmes, while eight collaborated with STEM Learning. As can be seen in Figure 43, the Institute of Physics most frequently assisted lead schools with the certification of their TSST programme. The support sought by lead schools from STEM Learning was most commonly for assistance with marketing the programme (six) and for programme design (four).

Figure 43: Did the Institute of Physics provide support for any of the following parts of your physics TSST programme? (n=17)



Twenty-nine lead schools offered maths TSST courses; of these, 12 accessed support from the National Centre for Excellence in Teaching Mathematics (NCETM), 13 from the Joint Mathematical Council of the UK (JMC) and 12 from Maths Hubs. Figure 44 provides further details of the support accessed by those offering maths TSST. JMC most often provided support with certification (assisting eight lead schools in this respect), while Maths Hubs were most likely to offer support with programme delivery (helping nine lead schools with this). The most common form of support accessed by lead schools through the NCETM was assistance with designing TSST programmes (five).

Figure 44: Did the Joint Mathematical Council of the UK/Maths Hubs/National Centre for Excellence in Teaching Mathematics provide support for any of the following parts of your maths TSST programme? (n= variable)

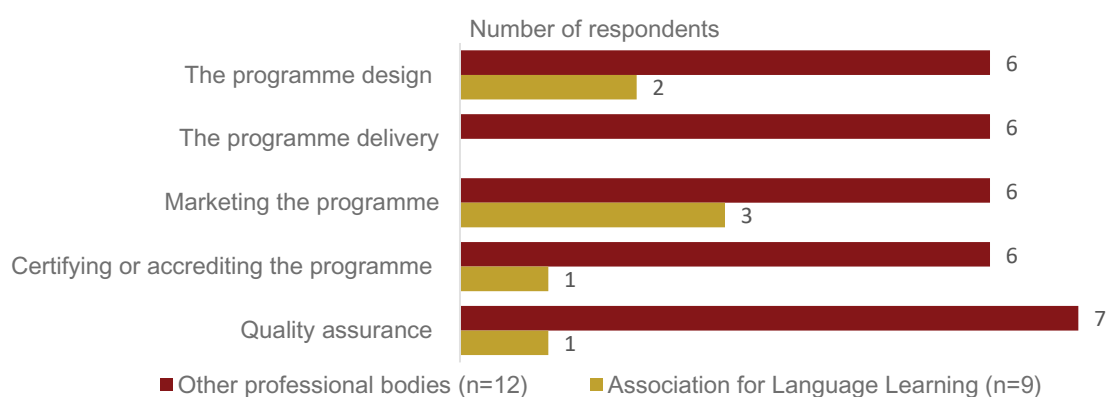


Sixteen lead schools offering maths TSST courses accessed support from just one organisation, but a number of schools sought support from multiple sources. Seven

schools accessed two sources of support, five accessed three and one school sought support from four different organisations.

Nineteen respondents' schools offered TSST in MFL subjects. As seen from Figure 45, nine of the lead schools accessed support from the Association for Language Learning (ALL). The nature of support accessed from ALL included assistance with marketing TSST programmes (three) and programme design (two). Of those that offered a TSST programme in MFL, 12 sought support from other professional bodies to quality assure (seven) and market programmes (six), to certify and accredit programmes (six) and in the design and delivery of MFL TSST courses (six each).

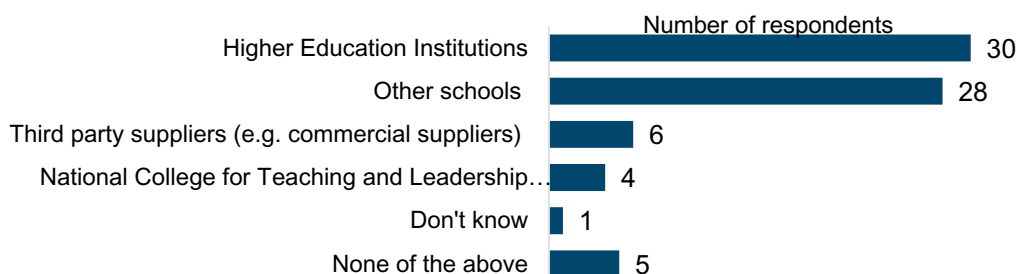
Figure 45: Did The Association for Language Learning/other professional bodies provide support for any of the following parts of your modern foreign language TSST programmes? (n = variable)



Strategic partnerships

Respondents were asked whether their school had worked with any other strategic partners to design and deliver TSST programmes, the results of which can be seen in Figure 46 below. Over two-thirds (30) of schools accessed support from an HEI, while 28 respondents said their school worked with other schools. A small number of lead schools accessed support from third-party suppliers (six).

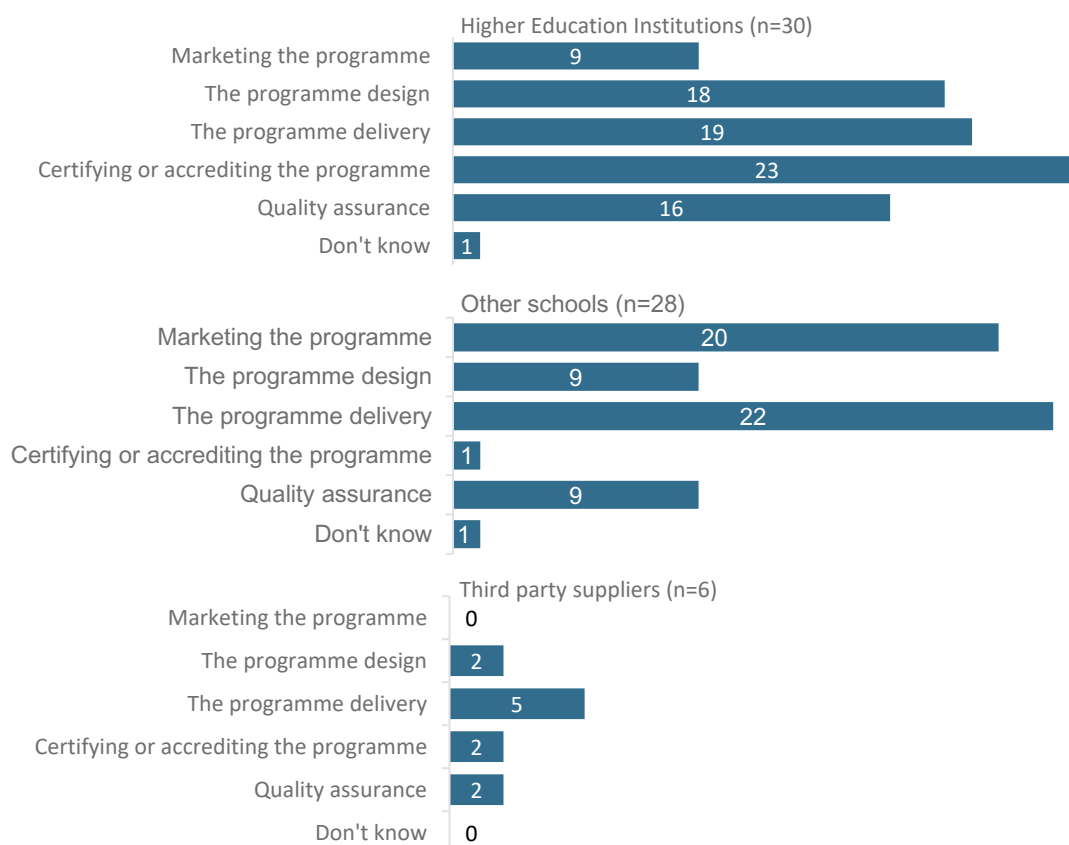
Figure 46: Have you worked with any of the following strategic partners at any point of the design and delivery of your TSST programmes? (n=45)⁶⁰



⁶⁰ Note that respondents were able to select multiple response options to this question.

Figure 47 shows the nature of support provided by HEIs, schools and third-party suppliers to lead schools in the design and delivery of TSST programmes. The majority of HEIs assisted and provided support to lead schools in certifying or accrediting programmes (23), with programme delivery (19) and design (18). Of the 28 lead schools that worked with other schools, many were supported to market (20) and to deliver (22) the TSST programme.

Figure 47: Did the higher education institutions/other schools/third party providers provide support for any of the following parts of your TSST programmes? (n= variable)



Teaching School Alliances (TSAs), Multi-Academy Trusts (MATs) and universities were all mentioned in the ten in-depth interviews with lead schools as important strategic partners who assisted in designing and delivering the TSST programme. For example, a lead school within a TSA or a MAT without a subject specialist⁶¹ may draw on another school(s) in the partnership where this expertise is present. Interviewees emphasised that strong existing relationships and networks are key to partnerships working well. For some lead schools, such was the necessity of these partnerships that they would not apply to deliver a programme such as TSST without them.

“In terms of the delivery, we’re such an established alliance, we have such tight links with our partners... we wouldn’t have bid for the funding if we

⁶¹ i.e. a teacher with post A level qualifications (e.g., a degree) in the subject they teach.

didn't have the confirmation from partner schools that they would release the SLEs [Specialist Leaders of Education], to deliver the programme."

(Associate Director of TSA)

Where such strategic partnerships did not already exist, programmes such as TSST have provided opportunities for these to develop.

"As teaching schools, we are supposed to be collaborating much more, working together, but there has to be a massive element of trust to be able to do that. Certainly in [this area], that has not been there, and I think these kinds of projects are the sort of thing that will build that trust, increasingly, as you get to know staff in other schools."

(Programme Co-ordinator)

Just over half (six) of the interviewees reported that they utilised local universities to support TSST by contributing to the design and delivery of courses, or through offering Masters Credits. Interviewees from lead schools delivering STEM TSST also spoke about utilising the Institute of Physics, the NCETM and Maths Hubs to support design and delivery of TSST courses. Interviewees from three of the six lead school interviewees delivering MFL TSST courses used commercial language-teaching software to support design and delivery of TSST.

"We did the maths with [anonymised university], and with languages [TSST courses] we've set up a whole group of schools, we did it together, designed it together, and we used [language software]."

(Deputy Chief Executive Officer for Regional Learning Trust)

"A lot of it is under our roof but some of it may be in other schools. Our Spanish TSST is delivered by a colleague who works at a high performing school. The other half of our Spanish course is being led and designed by a colleague who works at [anonymised university]. In the first instance we would tend to go to colleagues who we know and who are obvious people to work alongside."

(Director of Education for a MAT)

Four interviewees mentioned challenges in reference to working with strategic partners, particularly with universities. These concerned communication (i.e. responding to emails/calls), partners' availability to speak or meet, and logistics (i.e. travelling across cities, or asking course participants to do so and then finding that the university has cancelled the session). When asked how they overcame these challenges, these interviewees said that they tried to maintain good communication, were clear about expectations from partners, and managed problems as they occurred. One interviewee noted that as a result of delays in getting set up and beginning recruitment, they would have to delay the start date of their TSST course.

“You've got three people emailing and three people agreeing a date. Somebody only works part-time. It has taken us too long to get the whole thing off the ground. We're now going to have to postpone our start date, because we haven't started to recruit in time. That sometimes is unavoidable.”

(Programme Co-ordinator)

“Working with the university can be difficult as you have to synchronise calendars and availability. It can be tricky. Logistics are quite hard, crossing cities for people to attend sessions is difficult because of traffic constraints. We often find the sessions are postponed, cancelled, moved. It creates a problem. It'd be easier if we delivered everything ourselves ... [We manage] with difficulty. Trying to be organised, email, having good communication. You just manage it as it occurs.”

(Head of Science)

In addition to supporting the design and delivery of TSST courses, some school alliances also served as 'feeders' for recruitment. For example, one interviewee described how they utilised their network to support design, delivery and recruitment for TSST and other CPD programmes/courses:

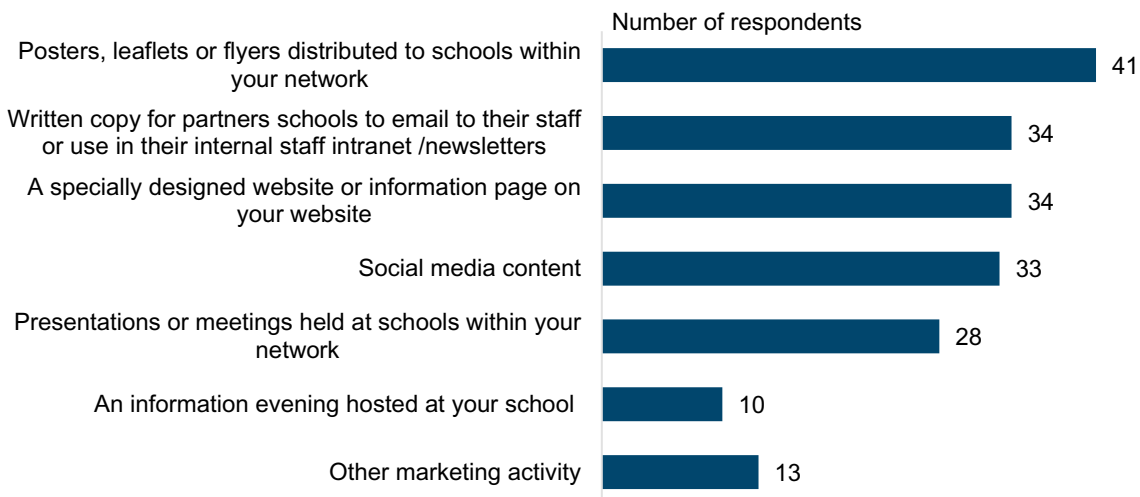
“Our closest group of schools is our multi-academy trust [...] Beyond that we have links with over 55 schools, both primary and secondary ... We tend to use all of those schools as our main feeder for the TSST as well as leadership programmes. We tend to use those networks for recruitment of respondents to be involved in them and where necessary for people to provide coaching support and [contributing] to the delivery and design of the programmes.”

(Director of Education for a MAT)

Marketing TSST courses

The in-depth interviews with lead schools identified a variety of methods used to recruit teachers for the TSST programme, including mailing lists, emails, flyers, social media, promotion via their website, at school network meetings, and word of mouth. As seen from Figure 48, the survey findings suggested that TSST courses were most often marketed through the distribution of posters, leaflets or flyers to schools within lead schools' networks, with nearly all the schools using this method of communication. A specially-designed website (or an information page on the lead school website) and written copy for partner schools were also frequent marketing strategies, with 34 lead schools using either or both of these methods.

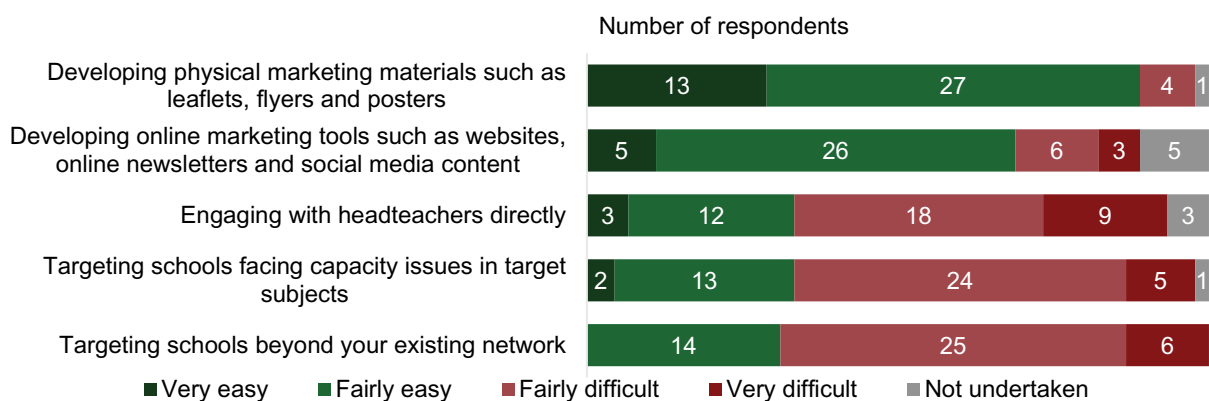
Figure 48: Which of the following activities have you used to market any TSST programme to other schools and/or teachers? (n=45)



The survey responses suggested that lead schools found the development of physical and online marketing materials to be easier than other marketing activities, which may explain why these were most often reported.

For example, thirteen respondents rated developing physical materials as 'very easy' and 27 found it 'fairly easy' (see Figure 49). By contrast, a fifth (9) of lead schools reported that they found it 'very difficult' to engage with head teachers directly and a further two-fifths (18) said it was 'fairly difficult'. Targeting schools either facing capacity issues in target subjects or beyond lead schools' existing networks were also reported to be difficult by the majority of respondents.

Figure 49: How easy or difficult was it to conduct the following marketing and communication activities? (n=45)



Recruitment challenges

In the interviews, all ten lead school interviewees said that recruitment was challenging and administratively time-consuming. Additionally, all ten said they were increasingly

struggling to recruit teachers onto their TSST programmes. Several principal reasons were given for this:

- There was a reduced pool of potential applicants, particularly for those lead schools that had been running TSST for more than one year, as those who needed TSST were likely to have already attended the course;
- There were felt to be too many providers of TSST, resulting in increased competition from other local providers;
- Ongoing restrictions on money spent on marketing, advertising and recruitment; and
- Schools were reluctant or unable to release teachers for training, despite the subject specialist need, due to stretched budgets and staff shortages across secondary education.

Competition between lead schools

All lead school interviewees highlighted recruitment, and competition with other lead schools, as the biggest challenges to delivering TSST⁶². Despite speaking positively about the programme overall, interviewees also spoke at length about their struggle to recruit teachers onto TSST, and the challenge posed by other providers competing in the same area. There was a general consensus that the market had become saturated, making it increasingly difficult year-on-year to recruit teachers.

“It is frustrating when you are trying to recruit from an ever-dwindling pool of people... Anecdotally it would be interesting to see on a map where coverage is, and therefore is not, with TSST.”

(Deputy Chief Executive Officer for Regional Learning Trust)

Interviewees said these recruitment difficulties had been detrimental to the courses themselves. Smaller group sizes were perceived to be less effective for the teachers on the courses, resulting in less peer support, and professional exchange and learning. Additionally, recruitment difficulties created inefficiencies in terms of resourcing TSST courses and difficulties meeting accountable targets. The impact of recruitment difficulties had been a significant administrative burden, due to the time and effort needed to recruit teachers and, in two cases, had resulted in delays to course start dates.

“You've got competition ten miles down the road, twenty miles up the road, ten miles to the east. It becomes much harder to recruit in your area. I think

⁶² Note that since the interviews were conducted, regional lead schools have been introduced into the programme to help coordinate delivery across regions.

it's made the programme less efficient, and also, it's just been really irritating, because you're being held to account for your figures.”

(Teaching School Director)

“The problem is there are not enough people any more who want to do it [TSST]. It's a huge waste of our time. Recruitment is taking a lot of time and effort... It isn't worth the sheer time it's taking to try and get people to do it. We used to start in October, but actually we can't start that quickly, because we just haven't had the numbers. We're probably going to start it later and concertina it.”

(Deputy Chief Executive Officer for Regional Learning Trust)

Marketing spend

Interviewees said they were not permitted to spend any of the TSST funding on marketing, and did not have the capacity to do so from their own school budgets. As such, recruitment was conducted via 'soft' advertising. Four interviewees specifically stated that the lack of a significant marketing budget was a barrier to recruitment. Two interviewees emphasised that the lack of a marketing budget was a particular barrier to reaching returning teachers. Eight reported that although they welcomed returning teachers, they were not a particular focus for recruitment, and some interviewees perceived that, even with more advertising, they would not necessarily receive much interest from this target group.

“We do always put, 'Returning teachers are welcome,' but we don't probably emphasise it. Having said that, when we have tried to really target them through the returning teachers programme, we've found we didn't get any interest anyway. We haven't really considered them as our primary market for maths.”

(Teaching School Director)

Only two interviewees said that they had tailored promotion streams targeting returning teachers. One commented that they followed up on leads received directly from the DfE and the other stated that they tailored their social media promotion towards returning teachers. However, both interviewees said that although interest was generated from potential returners, it did not necessarily result in recruitment. One lead school reported that, even when they had returning teachers signed up to the programme, a number of them 'didn't turn up'. The general consensus among interviewees was that recruiting returning teachers was difficult and inconsistent. Two interviewees noted that returning teachers were not always eligible for TSST, either because they had been out of the classroom too long and needed to retrain, because they did not have QTS and, in one case, because they had already completed a TSST course. One interviewee noted that there had been instances where a teacher could benefit from doing the same TSST course again, because their knowledge in the subject was not of the required standard.

Despite the difficulties faced by lead schools in recruiting returning teachers, one interviewee said that they had had proportionally more returning teachers on their MFL TSST compared to their physics TSST (as was also found in the beneficiaries survey, discussed earlier in this chapter), while another said that returners had been a ‘lucrative’ source for recruitment onto their MFL TSST.

Releasing teachers for training

Eight of the interviewees stressed that the time and cost for schools to release teachers for training had been a significant barrier to recruitment. In order to incentivise schools to encourage teachers to attend and to release them, three interviewees said their lead school provided financial support to schools to provide cover for released teachers, or directly to teachers as ‘overtime’ when sessions were held outside of working hours. One interviewee said that teachers were less likely to be released if they were not currently teaching the subject of the TSST programme. Another noted that there was demand from teachers to take up a TSST course, but without financial support from the lead school to support the release of that teacher, they would not be able to attend the course.

“Teachers want to come, but school finances are under pressure. I don’t think we’d recruit anywhere near the numbers we’ve got if we didn’t have that [the bursary]. For a six-day [physics] course, we’d have no chance of teachers being allowed out of the classroom without that incentive.”

(Programme Lead)

Programme design, content and delivery

Nine out of the ten lead school respondents who engaged in qualitative interviews stated that their primary mode of TSST delivery was face-to-face, with additional online activity and support. The remaining respondent (providing MFL TSST) stated that they had previously taken a mixed approach, using an online commercial language-teaching software for content delivery, and holding pedagogy sessions face-to-face. However, due to non-attendance at face-to-face sessions, all delivery was subsequently moved to an online format. Two interviewees reported using the same software in combination with face-to-face provision, and a further one was considering using the same software package to help delivery. Another MFL provider offered a combination of face-to-face teaching, activity-based practical and small group/one-to-one sessions, and reported that this had been successful.

“We’ve found the combination of the three worked well last year. They get the methodology, they get access to practical activities and things that they will be required to do on the job, and they also get the linguistic element that they wouldn’t get elsewhere.”

(Director of School-to-School Support)

Even among those interviewees who had delivered TSST primarily face-to-face, the structure of the TSST courses varied by provider and subject. In reference to the course design, one interviewee stated:

“I was surprised about the level of flexibility that the lead school has, in terms of topic content, timing and delivery. It was tightened up this year, and I think it needed to.”

(Programme Lead)

This flexibility was reflected in the descriptions of course structures from lead school interviewees (and through interviews and surveys with programme beneficiaries, as already discussed). For example, one provider of physics TSST had six face-to-face core topic days, while a provider of a maths TSST course was structured in a modular way (such that teachers could attend up to 30 topic based, half-day sessions, allowing them to select the ones that were relevant for them). All interviewees who provided STEM TSST programmes reported a primarily face-to-face course structure, with additional online provision such as tasks, self-study, assessments and support between sessions. One interviewee noted that their face-to-face sessions were delivered at evenings, weekends and during school holidays, including a two-day residential during the Easter holidays. Below is a summary of the format of their maths TSST provision, as an example of one way that TSST was delivered by lead schools:

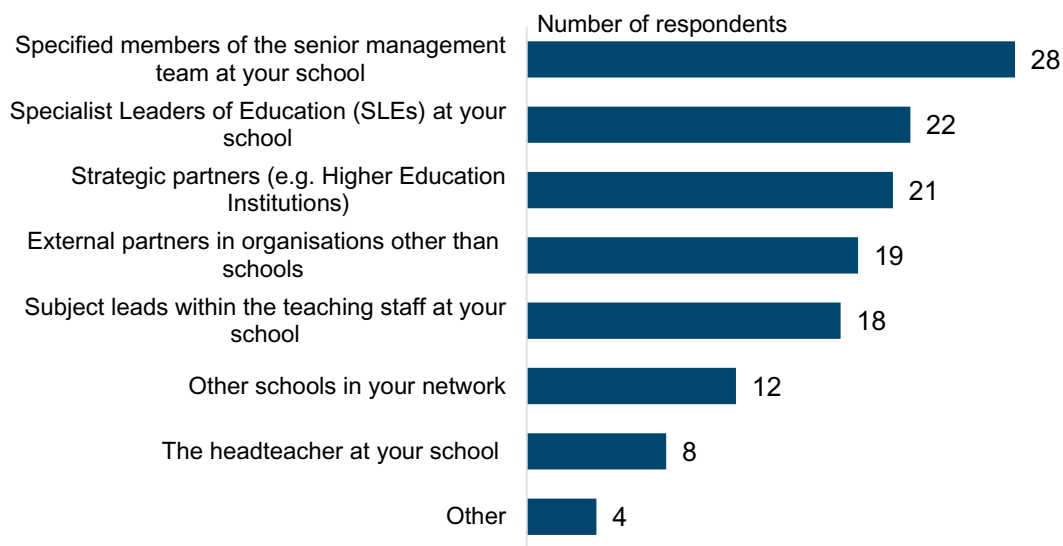
“The majority is face-to-face. We’ve created an online portal for all our participants... In a day of face-to-face training they might have four different sessions... resources from the training go into the portal, and post-session tasks... For the focus, we build them around particular national curriculum objectives [and] the pedagogy while doing that. We teach them the maths part, but also how to teach it. Certainly those that are doing the Masters unit, that’s all around pedagogy, what is mathematics, how do you teach it, how do you explore it? Teachers do reflective practice [throughout the course] and feedback at the conference at the end of the academic year”.

(Headteacher and Programme Lead)

Quality control and evaluation

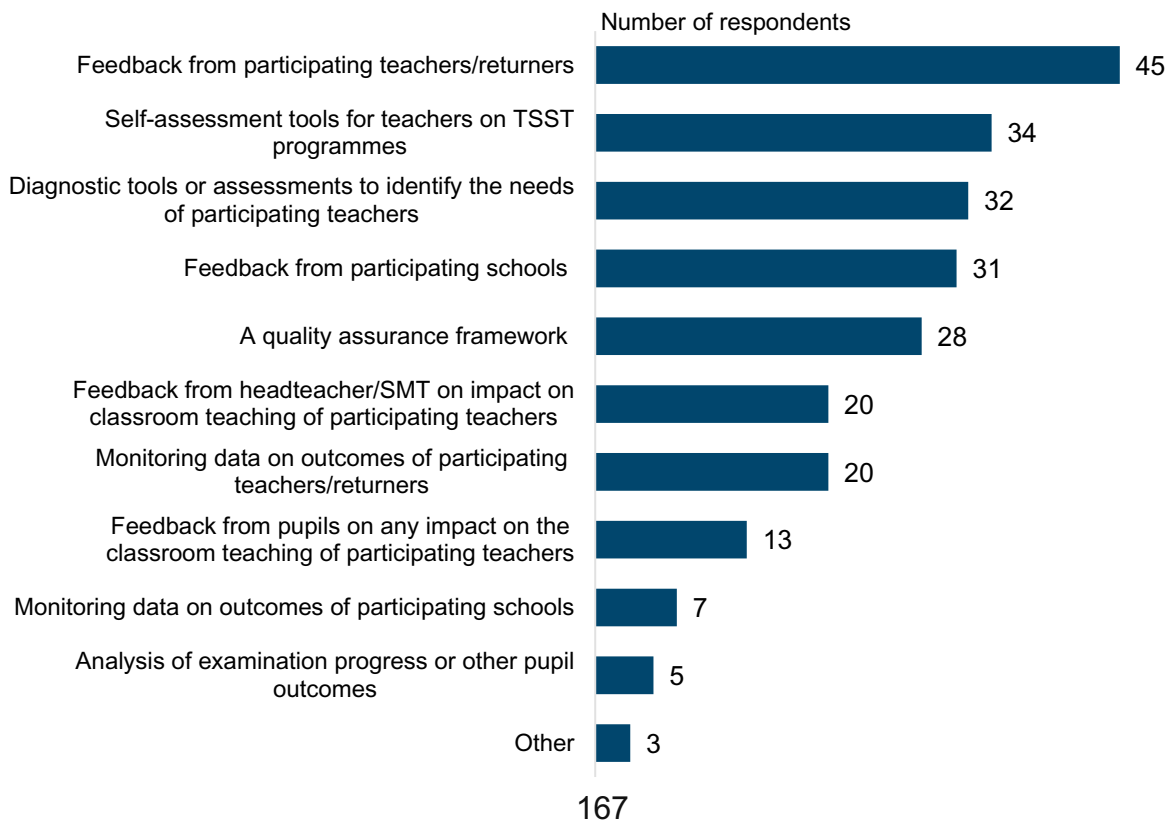
The lead school survey responses (see Figure 50) show that responsibility for the quality assurance of TSST programmes was held mainly by specified senior managers at the lead school (cited by 28 respondents), Specialist Leaders of Education (SLEs) at the lead school (22) and strategic partners such as HEIs (21). Only eight lead schools said that headteachers had been responsible for quality assurance of TSST programmes within their schools.

Figure 50: Please indicate if any of the following have a specified responsibility for the quality assurance of TSST programmes. (n=45)



Survey respondents were asked what mechanisms they had in place to monitor and evaluate their TSST programme(s), the results of which can be seen in Figure 51. All (45) respondents collected feedback from course participants, three-quarters (34) collated feedback through self-assessment for teachers on TSST programmes and a similar number (32) used diagnostic tools or assessments to identify the needs of participating teachers. Various other means of evaluation were in place, including collecting feedback from stakeholders such as participating schools, headteachers and pupils.

Figure 51: Which, if any, of the following mechanisms do you have in place to monitor and evaluate your TSST programme or programmes? (n=45)



Aspects of delivery

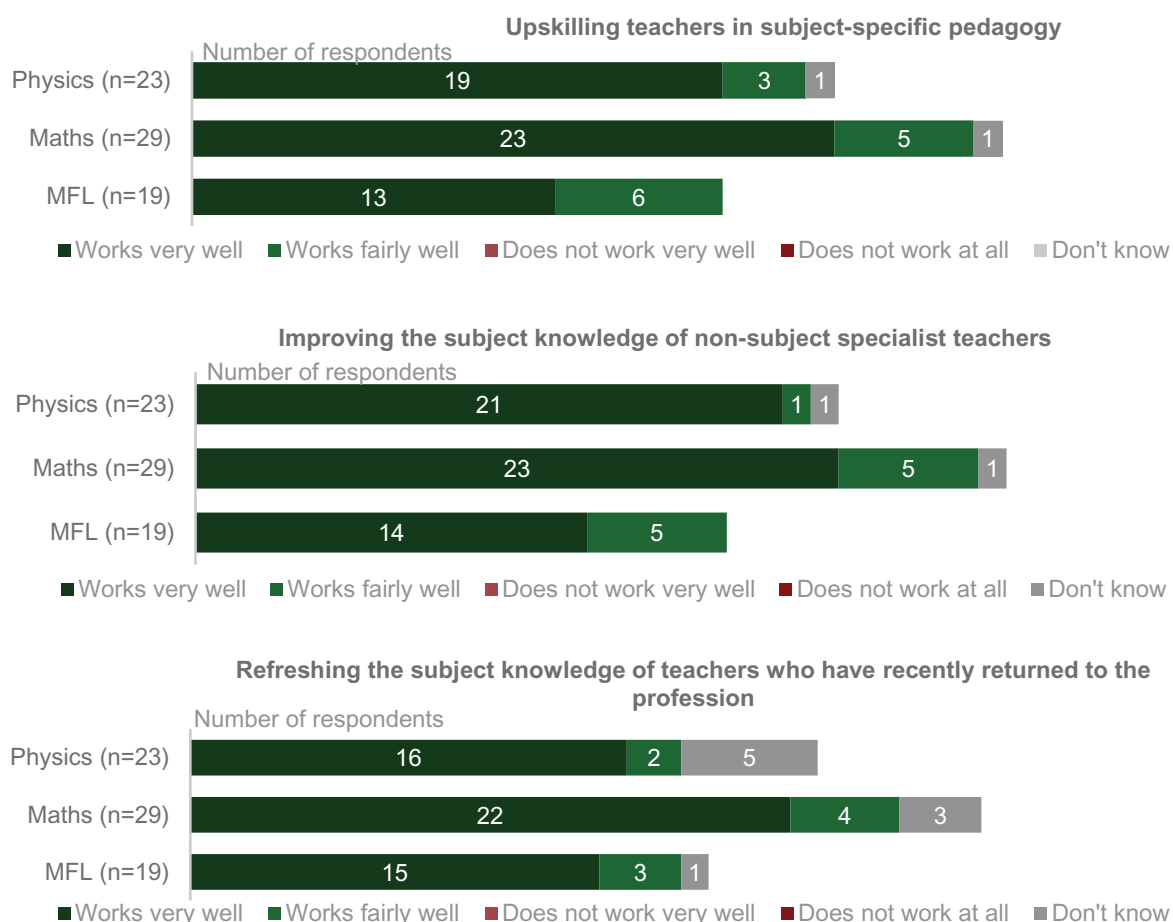
Across all three subject areas, most respondents felt that demand for TSST was stronger than the demand for any other subject-specific professional development opportunities. According to most (15) of the 23 lead school respondents offering physics TSST, the demand for TSST was stronger than the demand for other physics-specific professional development offered. Around half (15) of the 29 lead schools offering maths TSST found demand for TSST to be stronger, while a similar proportion (nine out of 19) respondents reported a similar case for MFL TSST.

Respondents were asked how well their TSST programme delivered against three key objectives, based on the feedback they had received:

- Upskilling teachers in subject-specific pedagogy;
- Improving the subject knowledge of non-subject specialist teachers; and
- Refreshing the subject knowledge of teachers who had recently returned to the profession

The majority of respondents across all three TSST subjects said that these factors either worked 'very well' or 'fairly well' (see Figure 52). There were no negative responses to this question across any of the subject areas, as shown below.

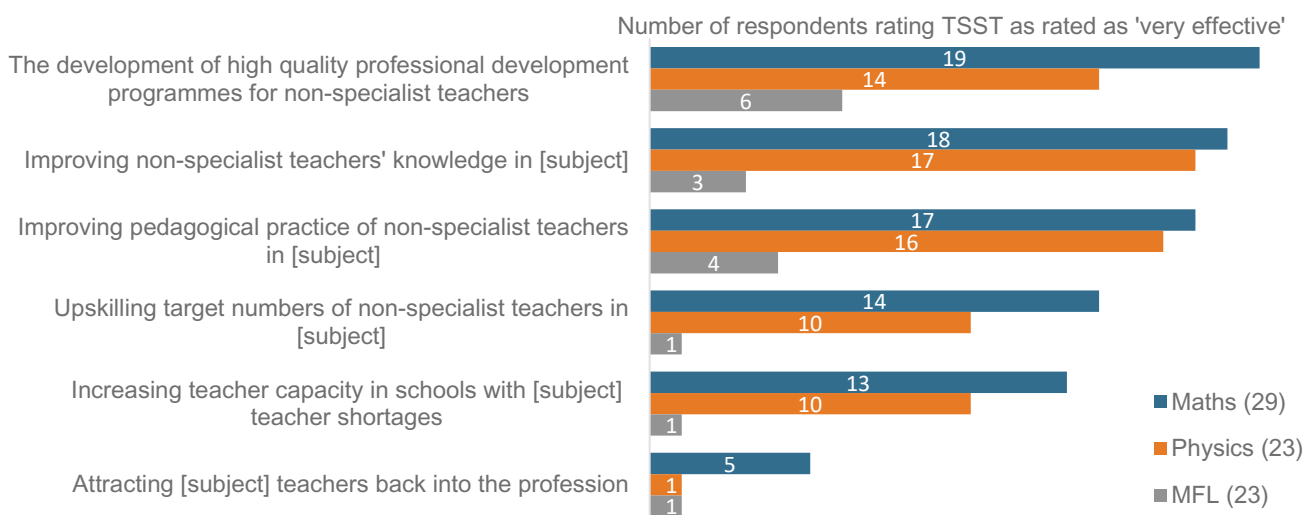
Figure 52: Based on any feedback you have had to date, how well does your TSST programme deliver the following? (n= variable)



Impact of TSST courses

Survey respondents were asked to report how effective they believed physics TSST would be in achieving certain impacts; the number of respondents giving ratings of 'very effective' for each are shown below in Figure 53.

Figure 53: In your view at this stage, how effective - if at all - will TSST be in meeting the following for [relevant subject area]?



The majority (17) of physics TSST respondents felt that it would be very effective at improving non-specialist teachers' knowledge in physics but only one respondent believed that physics TSST would be 'very effective' at attracting physics teachers back into the profession. Five respondents felt that maths TSST would be 'very effective' in attracting teachers back into the profession, but this was offset by nine who felt that it would be 'not at all' or 'not very' (seven) effective in meeting this objective. Improving non-specialist teachers' knowledge in mathematics and improving pedagogical practice of non-specialist teachers in mathematics were both seen as areas where the maths TSST would be 'very effective'. However, maths respondents felt the greatest impact would be felt through the development of high-quality professional development programmes for non-specialist teachers.

Lead schools offering MFL TSST reported greater levels of uncertainty regarding the extent to which the programme had been effective; at least half of those interviewed stated that they didn't know how effective TSST would be in regards to the statements detailed above. Of the 23 lead schools offering MFL TSST, six believed that the programme would be 'very effective' in the development of high-quality professional development programmes for non-specialist teachers and five stated it would be 'fairly effective'. Four respondents also felt the programme would be 'very effective' at improving pedagogical practice of non-specialist teachers in modern foreign languages.

Despite some of the mixed findings above, all lead school interviewees agreed that the value and impact of the TSST courses for the teachers was evident in terms of increased

subject knowledge, skills and - in particular - confidence. All interviewees had received positive feedback from teachers informally and via their own formal evaluations.

One interviewee described how TSST had even changed how they delivered science across their own school:

“We were able to train two of our teachers up to be physics specialists⁶³ last year. We’ve actually re-written our timetable so that Year 7 have one physics lesson a week taught by a physics specialist, a chemistry lesson a week taught by a chemistry specialist, and the same for biology, rather than having the one teacher teaching all three. We’re half a term in, and the feedback from the students is very positive and the teachers are much happier with the new set up.”

(Programme Lead)

In addition, four interviewees suggested how completing a TSST course may enable some teachers to secure a job, maintain their jobs or avoid redundancy, if they are able to teach additional subjects. For example, in cases where schools no longer offered a specific language or open-element subject, redundancies could be avoided if teachers were able to teach another (TSST) subject. One interviewee noted that ‘some [MFL] teachers are on their third language’ because the MFL subjects delivered within their school had changed. Another interviewee noted that ‘people are teaching maths [already] because there aren’t jobs in [their] subject. We [schools] need maths teachers’. Another interviewee reported that they were aware that one of the teachers on their TSST course had since gone on to receive a promotion and was cascading the learning from the TSST course to colleagues.

In contrast, one interviewee cautioned that ‘impact’ in terms of hours of STEM teaching is a ‘challenging measure of success’ due to the fact that a headteacher may anticipate a recruitment need, and send one or two non-specialist teachers onto a course. However, should that school subsequently be successful in recruiting subject specialists, those teachers who have completed a TSST course may not be required to teach the subject and may not apply the knowledge. This was also reflected in interviews with beneficiaries (as discussed earlier in the chapter), where a minority of interviewees reported that expected outcomes of TSST had not been realised due to a lack of teaching demand in the TSST subject within their school.

Three interviewees said they thought the impact was greater for existing teachers than for returners or teachers who were not yet teaching that subject specialism, as they were able to take the learning and use it immediately. They noted that TSST does not provide classroom experience, and that many of the aspects of teaching in a ‘modern classroom’ (such as IT, safeguarding, new curriculums and marking) – that would be important for

⁶³ Note that this refers to these teachers having undertaken a TSST course in this subject, rather than being a specialist in terms of holding a degree in that subject.

returning teachers – are not included on the course. This point was also made in interviews by teachers who had undertaken TSST, as discussed earlier in the chapter.

One difference between STEM and MFL subject areas that emerged from the interview findings was that their respective TSST courses may fundamentally target a different ‘type’ of teacher. The interviewees said that teachers attending an MFL TSST were already likely to be subject specialists (i.e. hold a subject degree) in at least one foreign language, but may attend the TSST to improve their knowledge and skills in a second foreign language. In contrast, interviewees felt there was greater variation in the ability levels of teachers attending STEM courses; they may be a subject specialist in another science, who needed to improve their knowledge and skills in physics or maths, or a teacher in a very different subject (such as Design Technology) who was required to support physics or maths teaching in their school. Given the range of ability levels, experiences and motivations of teachers attending TSST courses, the programme may achieve different outcomes for different audiences, although there is likely to be commonality in impacts such as increased subject knowledge and confidence.

Overall experience and future plans

Overall, the lead school interviewees were highly positive about the impact of TSST on the participating teachers. All interviewees believed that the programme aims and objectives were being met and that the greatest impact of TSST was in increasing the subject-specific knowledge, teaching skills and confidence of participants.

The lead school interviewees made a number of recommendations for schools who were, or were considering becoming, TSST lead schools. These included targeting recruitment activities through assessment of existing provision in the locality, and ensuring clear information was available to teachers interested in taking the course.

“[Schools] need to look at what other people are doing locally. That's the biggest factor. If there's someone within a twenty-mile radius doing it, you're both going to struggle to recruit.”

(Programme Co-ordinator)

“Have your dates straight and know what you're doing and be clear about how you communicate that. That helps give people confidence to come onto the course. We've got a brilliant administrator. In terms of content, say you're going to do higher tier GCSE or foundation GCSE, make it clear where you're targeting. It's going to be much better to deliver what those teachers need, then.”

(Head teacher and Programme Lead)

Interviewees recognised the need to recruit subject specialists at secondary level and five of the ten interviewees said they would like to see the TSST eligibility criteria extended to

include primary teachers, non-QTS teachers, teachers who want or need to repeat a TSST course, and those who want to complete more than one.

“The rules are unless you are teaching Year 7 [or above], you can’t engage with TSST. It’s one of those oversimplified hammers to crack a nut. Whilst, yes, recruitment in secondary schools for maths is more of an issue, all is not necessarily well in the primary environment in terms of these skills and expertise colleagues have. It’s a disappointment to us that it’s solely focused on teachers who teach Year 7 upwards.”

(Director of Education for a MAT)

Most (nine) interviewees stated that they would continue to deliver TSST as long as they received interest and would review that decision each year. Of those who intended to continue, one added that, now they are struggling to recruit, they would prefer to run it biannually. The remaining interviewee reported that they had already dropped physics TSST and were likely to drop both maths and MFL TSST programmes after this year due to recruitment difficulties and the administrative burden.

“I think we’ll continue to run the programmes so long as we can fill them, but if it gets to a point where we’re not able to recruit, then we’ll stop running them.”

(Teaching School Director)

“The feedback has been very positive from the people who’ve done it. The issue isn’t that it hasn’t been a good course. The issue is there’s not anybody left to do it with. It’s not worth our time, effort.”

(Deputy Chief Executive Officer for Regional Learning Trust)

7.6. Findings from the survey of TSST recipient schools

Engagement with TSST

Of the 30 recipient schools that responded to the survey, a total of 17 employed teachers who had undertaken TSST courses in maths, 11 employed teachers who had undertaken TSST in physics and two employed teachers who had undertaken TSST in MFL (specifically Spanish)⁶⁴.

⁶⁴ Note due to the small number of responses from MFL recipient schools, analysis and coverage of this group is limited.

Almost half (14) of the schools surveyed employed one teacher who had undertaken TSST. In six of the schools surveyed, two teachers had participated, and a further six schools reported that three or more teachers had undertaken TSST.

Among those recipient schools who were interviewed, all (eight) said that participation in the TSST course was entirely voluntary for teachers, although Head of Departments did recommend that some teachers undertook a TSST course. A majority (six) of interviewees said that once teachers were approached, and the benefits and content of TSST was explained, teachers were receptive to undertaking the course.

"It's entirely their decision. We've had some members of staff say no, because they have enough commitments, or aren't able to attend. The majority of staff we've approached in the past have done it, but it is entirely their decision. We haven't made it in any way a condition of teaching maths."

(STEM, Head of Department)

Interviewees spoke about the circumstantial factors that their schools took into account when considering teachers for the TSST programme. Around half (five) suggested that their school tended to focus on a department's future capacity requirements when deciding which teachers to recommend the programme to. For example, one interviewee said that their school mainly recommended the programme to teachers who taught in other (non STEM/MFL) departments, but had the capability to cover lessons in a TSST subject. Other schools would recommend TSST to teachers who had recently returned to the profession and/or to teachers who expressed an interest in undertaking the course themselves.

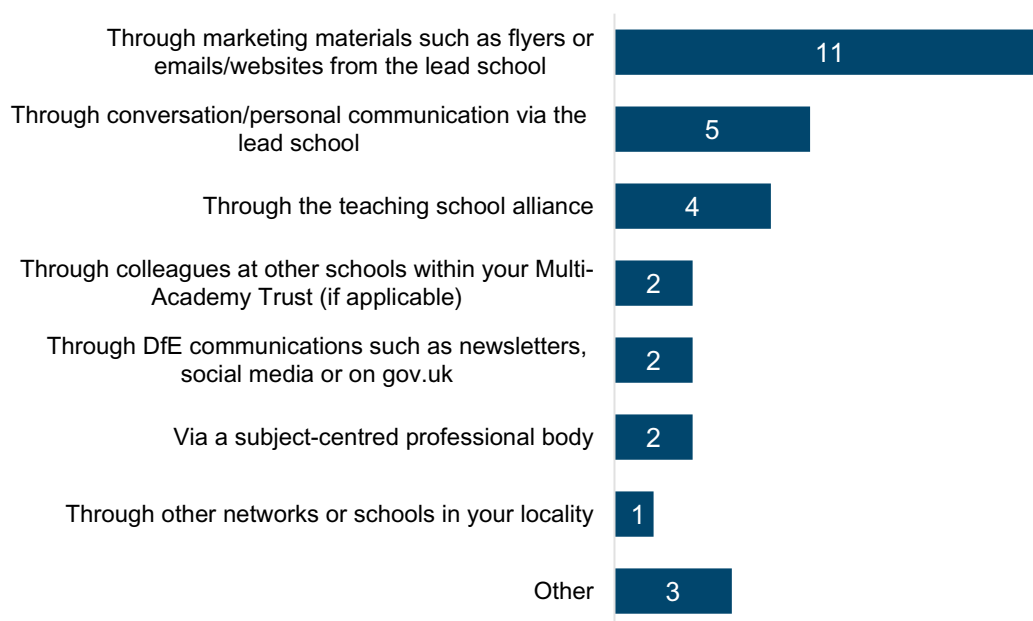
"We've been [recommending TSST] quite a lot, because we have to use non-specialist teachers to cover lessons that aren't able to be covered by specialist MFL teachers. That was our major [consideration] this year. Additionally, teachers who perhaps are stronger in one language than the other and feel like they don't have as much confidence. We haven't [recommended these teachers] yet, but [we have recommended] teachers that are having particular difficulties in an area of teaching and learning that we feel [...] would benefit from more support [provided by TSST]."

(MFL, Head of department)

Marketing and recruitment

Reflecting the channels most frequently used by lead schools to market the programme (as discussed earlier in the chapter), around a third of recipient school survey respondents first heard about TSST through marketing materials from the lead school, such as flyers, emails or the lead school website (11 out of 30 respondents). As shown in Figure 54, another five respondents first heard of TSST through direct communication with the lead school, and four respondents heard of the programme through a TSA.

Figure 54: How did you first hear about TSST? (n=30)



Similarly, the majority of recipient school interviewees (six) had become aware of the TSST programme either through their lead school or a school within their TSA. Some heard about the programme through word of mouth, from teachers who had undertaken a TSST course.

Almost all (seven) of the interviewees had received marketing material from their lead school and the interviews suggested there were no notable differences between the marketing materials used by the different lead schools. Emails and bulletins were described as the most common method used to market the TSST programme to teachers. Most (six) interviewees found this method of marketing informative and useful, but some (four) felt that it was not the most effective method. One interviewee suggested that presentations, informal meet/greet sessions or tailored events by the lead school would have been more effective. Another interviewee felt that bulletins and emails provided limited information about TSST courses.

"The most effective methods were the conversations that you could have. We recruited most successfully within our own school, because we could say to them, 'This is happening, we highly recommend it. This is why it would be good for you.' Those were the ones that tended to stay and stick to the whole course."

(MFL, Head of Department)

"[Bulletins and emails] are quite informative, and they're useful for reminding me [about the course], if nothing else. I have something of a strong knowledge of the TSST, though, so in that sense it's not that helpful. If your school already knew about the TSST programme, then it's effective. If your

school didn't, I'm not particularly convinced the current marketing methods would make you aware [of the aims and objectives of the course]."

(STEM, Head of Department)

Lead and recipient school relationships

During the interviews, half the interviewees indicated that their school had a pre-existing relationship with the lead school prior to their involvement in the TSST programme. Schools that were previously involved with the lead school were either part of a TSA or had previously worked with the lead school through other collaborative CPD opportunities. The interviews suggested that these schools had more effective communication channels than those that had formed new partnerships as a result of their participation in the programme. Some interviewees (three) from schools that had formed a new partnership with their lead school stated that poor communication was a key reason why the relationship between the schools was not working well. One respondent said the lead school should be obliged to send regular updates so that schools were aware of the progress their teachers had made on the course.

"There's no communication at all now [with the lead school]. I think the lead school needs to get a list of all the emails [of the heads of department or person responsible for the course participants] and email them more [information on progress]".

(STEM, Head of Department)

In contrast, interviewees from schools that had existing relationships with lead schools spoke positively about these relationships. All of these interviewees felt this was due to regular communication. For example, one interviewee noted that their school received regular updates from the lead school on their teachers' progress. The school was also able to use the TSST programme to facilitate sharing of good practice among members of staff at both schools. The interviewee explained how staff at the lead and participating schools observed each other's lessons and shared resources:

"We're getting members of staff from [the lead school] coming in to observe our lessons and so on. We can also [visit their school to observe lessons]. [For example] If they have a really good Key Stage 3 intervention programme, we might say, 'Can we come and visit you and have a look at what you do?' Having links [with the lead school] just to share resources and ideas is always useful."

(STEM, Acting Assistant Principal)

"The fact that even though there weren't any problems, if there had been problems, I would have been able to pick up the phone and talk to somebody [at the lead school] and know who they were and that kind of smoothed things over."

(STEM, Head of Department)

Support mechanisms

The majority of interviewees (six) indicated that their school provided participating teachers with some form of support while they undertook TSST, although to varying degrees. Three schools provided teachers with a mentor while other support mechanisms included reduced timetables, lesson cover and access to additional resources such as textbooks and online material. Two respondents who reported that their schools did not provide any support said that this was due to the course being delivered outside of school hours, so they felt that their teachers did not require support while they were undertaking TSST.

Motivations to upskill teachers through TSST

Schools responding to the survey reported that participation in the programme was motivated primarily by the goal of improving pupil outcomes and/or the quality of teaching. For maths TSST, pupil outcomes and quality of teaching were described as either 'very' or 'fairly' influential by 14 respondents (see Figure 55), while for physics TSST, these factors were influential for all respondents (see Figure 56). Increasing the number of non-specialist teachers who were currently teaching maths was also described as 'very' or 'fairly' influential by 14 respondents. Addressing capacity shortages or skills shortages was found to be less influential where teachers had upskilled in maths, although this was still a motivating factor for more than half of respondents (both were described as either 'very' or 'fairly' influential by 10 schools). In contrast, addressing skills shortages was considered to be a primary influence for all who had upskilled teachers in physics (and was rated 'very' influential by six respondents). Increasing teaching capacity was also cited as the main motivation by six (out of 8) recipient school in-depth interviewees.

Refreshing the knowledge of returning teachers, or increasing the number of subject hours taught in the school were less influential for the recipient schools. The latter furthers the findings from earlier in the chapter that suggest increased hours is not necessarily the best measure of impact for TSST.

Figure 55: How influential, if at all, were the following in your school's decision to upskill non-specialist teachers in maths? (n=17)

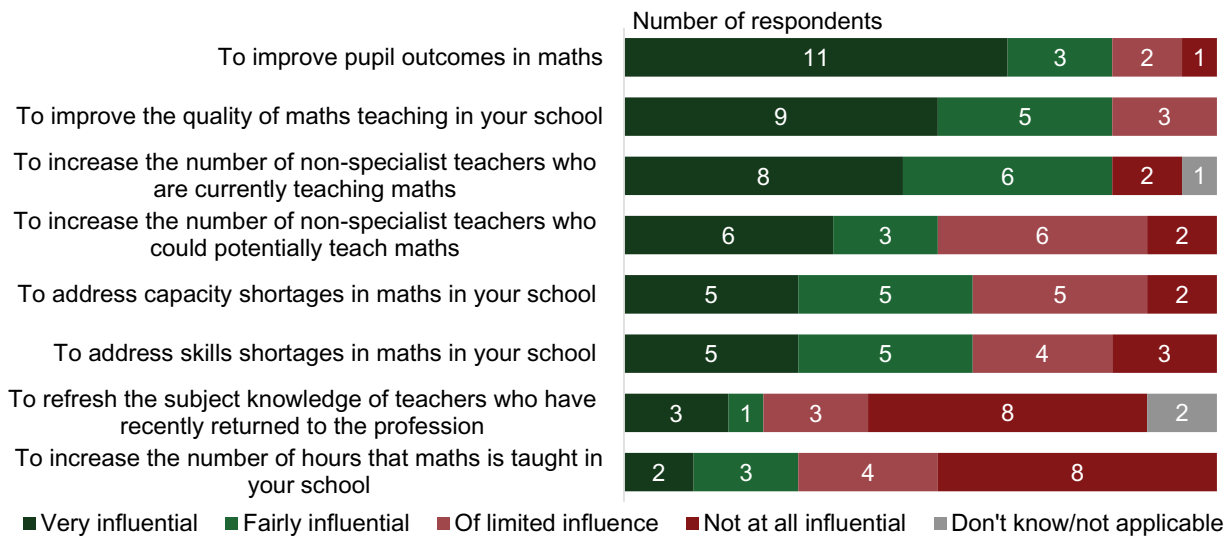
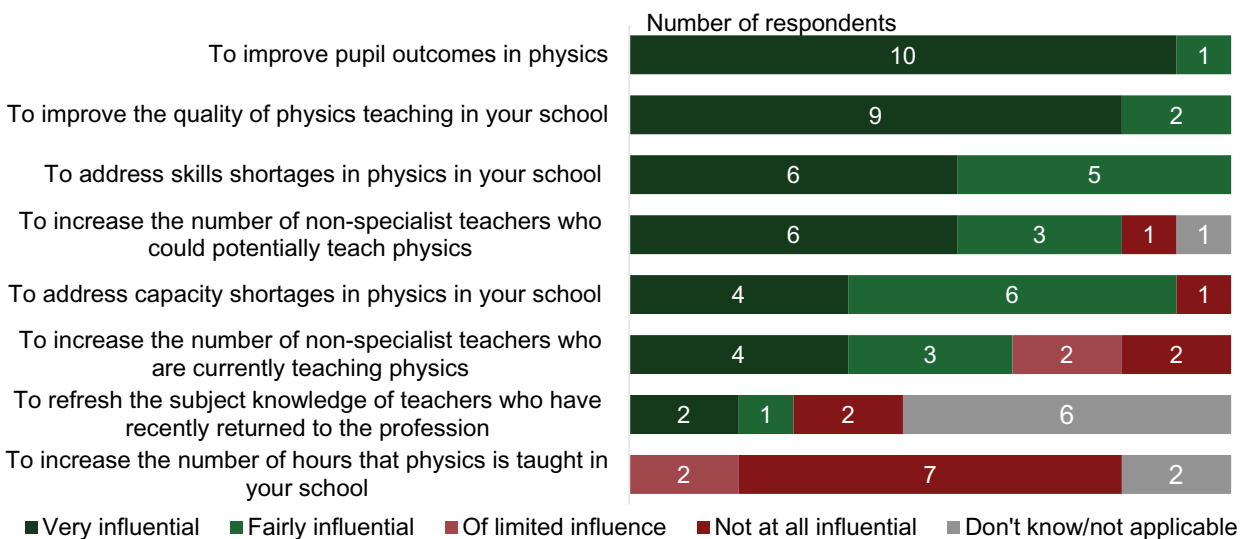


Figure 56: How influential, if at all, were the following in your school's decision to upskill non-specialist teachers in physics? (n=11)



When asked whether there were any other factors that influenced respondents' schools' decisions to participate in the TSST programme, nine respondents mentioned other influences. These related to staff development, or upskilling and improving the confidence of non-specialists.

From the two schools that employed teachers who had undertaken Spanish TSST, one respondent rated the following factors as 'very influential': improving teaching quality, increasing the number of MFL teachers who have the capacity to teach a new language in addition to their existing language(s), and increasing the number of non-specialist teachers currently teaching MFL in addition to their specialist subject. Improving pupil outcomes in

target languages was 'fairly influential' for this respondent. The other respondent reported all four of these factors as 'not at all influential'.

Among those recipient schools who participated in the interviews, several respondents commented on the benefits of upskilling existing teachers as opposed to recruiting new teachers. One said that the maths subject knowledge of new teachers was felt to be poor due to the low calibre of applicants they had previously seen. Another respondent stated that upskilling teachers from other departments (like physical education and art) in maths meant that more teachers within the school were able to cover maths lessons, which helped with capacity issues.

"It's nice to know that [the school is] not just bringing in some random supply teacher that we don't know much about. We could actually bring in [a teacher] who's just completed the TSST course and we know exactly who they are, what their strengths are, what their weaknesses are and that's been very useful."

(STEM, Assistant Principal)

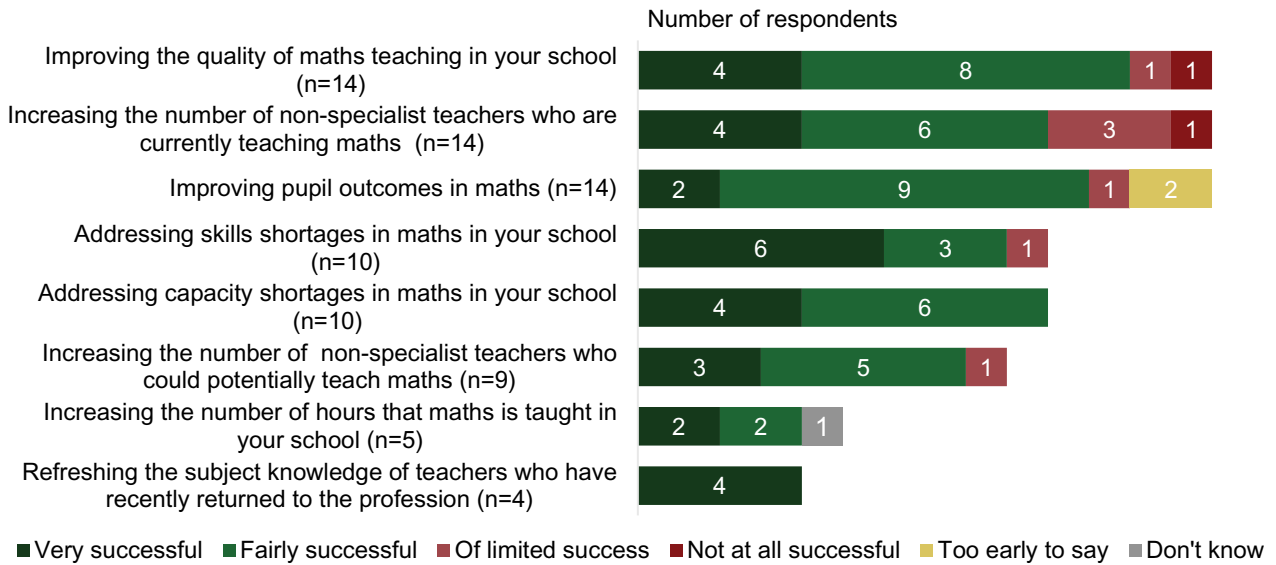
Experience of the TSST programme

Survey respondents were asked to give their views on the extent to which the TSST programme had been successful in addressing each of the factors that motivated the school to become involved in TSST. Recipient school experiences were also considered in terms of satisfaction with programme delivery and outcomes.

Extent to which programme addressed influences to participate

Among the schools where teachers had undertaken maths TSST, most respondents felt that the programme had been successful in meeting its intended aims, as measured against the motivating factors profiled in Figure 57 below. A minority reported that the programme had been 'of limited success' in increasing the number of non-specialist teachers who are currently teaching maths. Two respondents reported that it was 'too early to say' whether the programme had been successful in improving pupil outcomes in maths, while one respondent felt that it had been of limited success in that respect.

Figure 57: How successful, if at all, has TSST been in...?⁶⁵



The survey returned limited data about the extent to which respondents felt that the physics TSST programme had been successful in meeting expectations⁶⁶. Three respondents rated the success of TSST in addressing the motivating factors, with all agreeing that physics TSST had successfully addressed skills and capacity shortages in physics, improved the quality of teaching, and improved pupil outcomes in their school⁶⁷.

One respondent from a school where teachers had upskilled in Spanish felt it was ‘too early to say’ the success of TSST in improving the quality of teaching or pupil outcomes in their school.⁶⁸

From those who participated in the interviews, half (four) said that the pedagogical content was the most beneficial element of the courses, particularly for those teachers who undertook MFL TSST. The opportunity for teachers to learn different practical and conceptual methods associated with language teaching was felt to be especially valuable.

Among STEM interviewees, discussion around the use of resources was felt to be the most useful element. One respondent stated that maths could be viewed as quite dry to teach, but the TSST course had provided teachers with useful resources to help them

⁶⁵ This question was only asked of respondents who had described each factor as *fairly* or *very influential* in the decision to upskill non-specialist teachers through maths TSST initially. As such, the base size varies for each factor (shown in brackets).

⁶⁶ Due to a software error, the relevant question was not asked of schools where teachers had undertaken physics TSST (n=11). Respondents who had agreed to further contact (n=6) were asked to submit responses to this question at a later date, generating three responses.

⁶⁷ Given that this question was issued by re-contact, a selection bias is possible (and the base size is very small), so findings should be interpreted as indicative only.

⁶⁸ Note that the other respondent from a school where teachers had upskilled in Spanish did not answer this question.

engage learners. As seen from the quote below, one respondent felt that accreditation for teachers who had completed the course was also useful.

"The fact that it was a very specific taught course meant that staff were going and they were increasing their knowledge [in the STEM/MFL subject], it wasn't time-wasting in any way. It was a proper well-delivered course about pedagogy and about upskilling in a language. The fact that there was an exam at the end meant that it was accredited and also, you know, that it had some value. Schools could see that staff are not just being upskilled but they also had an accredited course at the end of it as well."

(Vice Principal, MFL)

Satisfaction with programme delivery

Overall, satisfaction levels with TSST were very high; 20 respondents (out of 30) said they were 'very satisfied' with the experience their school had had of the programme, and a further eight were 'fairly satisfied', with only one 'very dissatisfied'. The remaining respondent said they were neither dissatisfied nor satisfied.

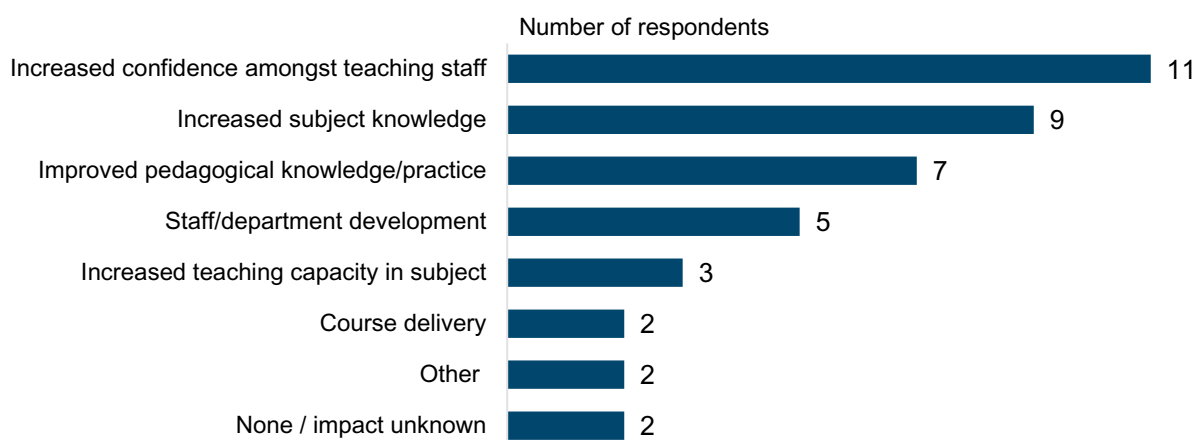
The 28 respondents who were satisfied with their schools' experience of the TSST programme typically cited improved confidence and subject knowledge among participating teachers (11 and nine mentions respectively) as driving satisfaction:

'The staff involved feel more confident in teaching maths, which will have a knock-on effect in the classroom.'

(School employing teacher/s who had undertaken maths TSST)

Improved pedagogical knowledge/practice was also mentioned by a quarter of respondents (seven). The full breakdown of responses is presented in Figure 58.

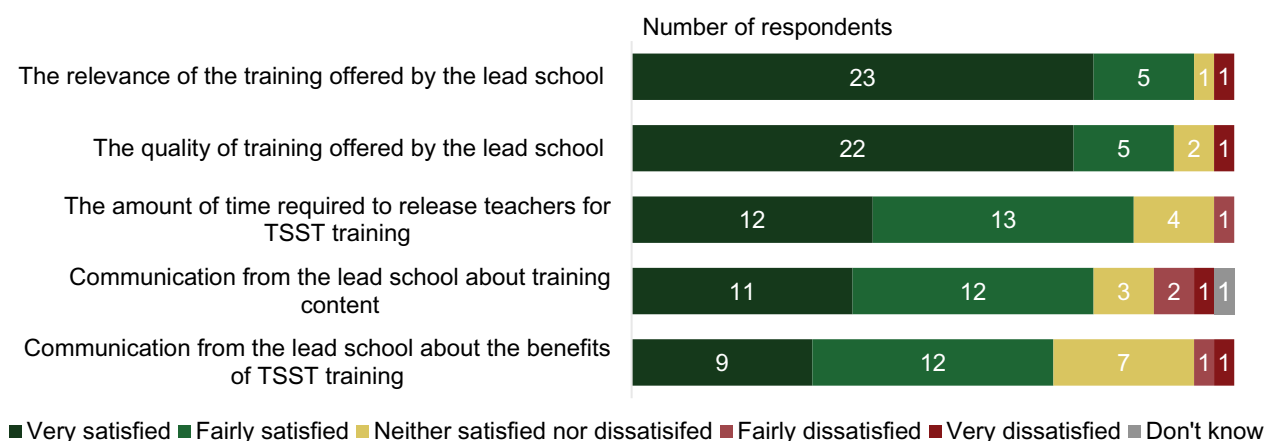
Figure 58: Please explain why you are satisfied with the experience your school has had of the TSST programme. (n=30)



Considering specific aspects of programme delivery, respondents were satisfied with the relevance and quality of training offered by the lead school; 28 were 'fairly' or 'very'

satisfied with its relevance, and 27 were 'fairly' or 'very' satisfied with its quality (see Figure 59). Overall, respondents were slightly less satisfied with communication from the lead school, about the benefits of TSST training and about its content. Despite concerns from lead schools that the amount of time required to release teachers for TSST training presented a barrier to recruitment (discussed earlier), this was only reported as a problem by one recipient school in the survey (25 were satisfied, and 4 were neutral regarding the amount of time required).

Figure 59: How satisfied or dissatisfied are you with the following aspects of TSST? (n=30)



For over half (five) recipient school respondents who were interviewed, the programme was delivered through six or seven twilight sessions across the academic year. In contrast, other respondents noted that the TSST courses attended by their teachers were delivered across two full-day sessions. Most respondents said that the current duration of TSST courses their teachers attended was sufficient; over half the respondents (five) noted that having the sessions spread across the academic year resulted in minimal impact on the teaching timetable. However, three respondents felt that participating teachers would benefit from the course being extended so that teachers were able to cover the full syllabus rather than the main topics (an improvement also suggested by several TSST beneficiaries during qualitative interviews). Another respondent, however, said the programme could become burdensome if more sessions were included, suggesting that basic coverage with signposting to further content could be an alternative approach.

"You could say, 'it would be really nice if it was a two-year programme,' but if it's any more than six twilights in over one year, you might be overburdening staff a little bit. I think at least the six sessions they attend address the basics and get them going, and signpost them into further study."

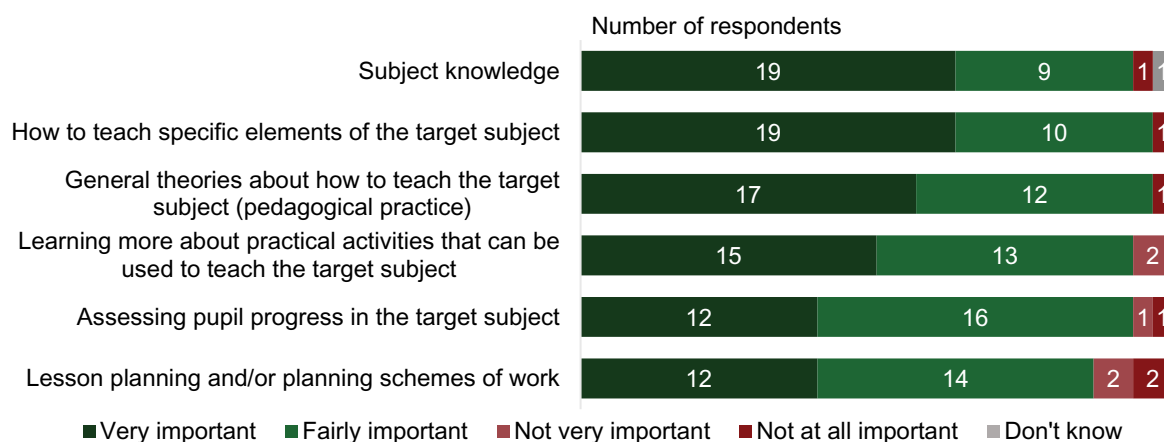
(STEM, Assistant Head Teacher)

Relative importance and satisfaction with programme outcomes

Survey respondents were asked to rate how important it was for teachers to upskill in specific areas through the programme, with every aspect rated as important by a majority of respondents (see Figure 60). Lesson planning/planning for schemes of work was rated

as unimportant by the most respondents in comparison to the other categories, but even this was rated as 'very' or 'fairly' important by most.

Figure 60: How important, if at all, is it for teachers in your school to upskill in the following areas? (n=30)



Twenty-seven out of 30 respondents were satisfied that teachers had upskilled in terms of subject area (of which 15 were 'very satisfied'), while 26 out of 30 were satisfied that teachers had upskilled in terms of how to teach specific elements of their target subject (of which 14 were 'very satisfied'). All respondents who were interviewed agreed that the programme had increased the quality and subject knowledge of teaching in their respective departments. In particular, respondents noted that teachers' confidence had increased. This was evident as teachers who had upskilled were more willing to try new practical tasks with learners. One respondent who conducted lesson observations of teachers who completed TSST stated that they had witnessed an immediate change in their teaching practices. In particular, teachers were able to identify pupil misconceptions and generally appeared more skilled in their approach to the lessons. The sharing of knowledge that teachers had learnt from TSST courses was also reported as an impact, as can be seen from the quote below, in which the respondent explains how the impact of the course had been felt more widely within the school.

"[The teacher who attended TSST] has come back into school and they've shared that knowledge with colleagues. That's had an impact on physics because we're doing more experiments. She's put together resources and PowerPoints that we're sharing. It's had a positive impact on not just her teaching but the whole department."

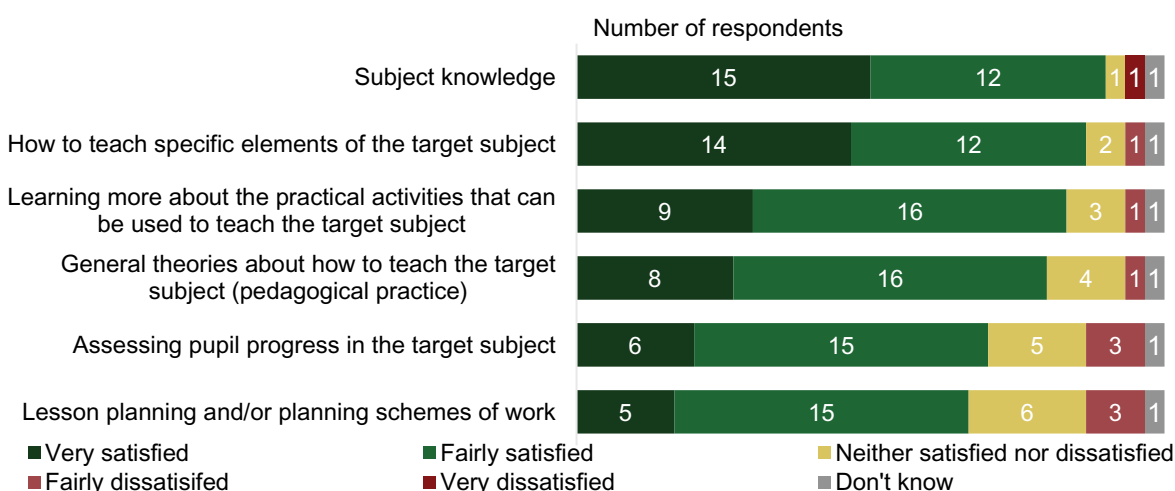
(STEM, Head of Science)

Pedagogical practice was also rated as important by almost all the schools surveyed. Satisfaction was lower for this aspect of training, although still reasonably high with 24 out of 30 reporting that they were satisfied (eight were 'very satisfied' and a further 16 'fairly satisfied'). As shown in Figure 61, only one respondent was dissatisfied with the extent to

which participating teachers had upskilled in terms of pedagogical practice through TSST, but four reported that they were neither satisfied nor dissatisfied.

Satisfaction was slightly lower in terms of learning about practical activities that can be used to teach the target subject, of assessing pupil progress and of lesson planning, with three respondents describing themselves as ‘fairly dissatisfied’ with the extent to which teachers in their school were upskilled in each of those aspects through TSST. A further 11 respondents said they were neither satisfied nor dissatisfied with the extent to which TSST upskilled teachers in these areas.

Figure 61: How satisfied or dissatisfied are you that teachers in your school were upskilled in the following areas through TSST? (n=30)



Reported teaching hours before and after TSST

A comparison of reported weekly teaching hours in subject areas before and after TSST was undertaken among recipient schools. The data is drawn from self-reported data from 30 schools and is therefore indicative only. The 17 schools putting teachers through maths TSST said non-specialist teachers taught about five hours⁶⁹ of maths a week on average (though this ranged from zero to 23 hours). This rose to an average of around nine hours a week overall in the last term prior to the survey. Eight schools reported that specialist maths teachers taught an average of 18 hours a week before TSST. By comparison, ten reported an average of approximately 24 hours per week after TSST.

In the case of physics, there was no reported change in average hours. Specialist teachers and non-specialist teachers covered an average of approximately 11 to 12 hours teaching per week. This may partly be explained by the finding from the interviews with

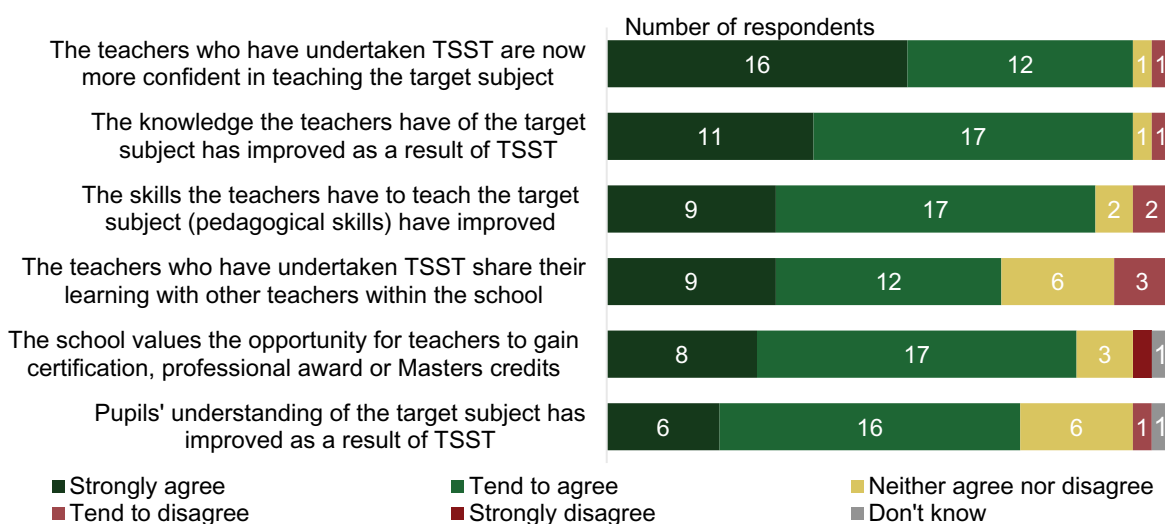
⁶⁹ Estimated figures for each teaching group were entered as free text. The number of hours quoted is the average of this figure, although it should be noted that the base sizes are very small, so any differences are indicative only.

lead schools, where one respondent felt that some schools sent teachers on TSST courses in the anticipation of capacity issues that may not subsequently materialise.

Impact of TSST on recipient schools

Mirroring the findings reported earlier relating to drivers of satisfaction, Figure 62 shows a strong level of agreement among the 30 survey respondents about the positive outcomes of TSST, with three or fewer respondents disagreeing with each given statement of impact. For example, most agreed that the teachers who had undertaken TSST were more confident in teaching the target subject (16 'strongly agree' and 12 'tend to agree'), had improved knowledge of the target subject (11 'strongly agree' and 17 'tend to agree') and had improved pedagogical skills to teach the target subject (nine 'strongly agree' and 17 'tend to agree'). Most respondents also reported that their school valued the opportunity for teachers to gain certification, a professional award or Masters credits through undertaking TSST (eight 'strongly agree' with this statement and 17 'tend to agree').

Figure 62: To what extent do you agree or disagree with the following statements now that teachers at your school have undertaken TSST? (n=30)



Although most survey respondents agreed with the statement 'the teachers who have undertaken TSST share their learning with other teachers within the school', six neither agreed nor disagreed and a further three 'tended to disagree', suggesting that the benefits of TSST were not always cascaded to a wider teaching group. Similarly, although most agreed that pupils' understanding of the target subject had improved as a result of their teachers undertaking TSST, six neither agreed nor disagreed with this statement and one disagreed.

Almost half (14) of those schools who completed the survey would be very likely to upskill other teachers in the school using the TSST programme, and a further seven would be fairly likely to do so. Just five reported that they would be unlikely to do so, and a further four did not know.

Nearly half (14) of survey respondents said they would speak highly of the TSST programme without being asked, and almost as many (13) said they would recommend it if asked. Just one said they would speak neutrally about the programme and one would be critical of the programme if asked, suggesting that, for almost all participating schools, the TSST programme was a worthwhile endeavour.

Of those interviewed, all indicated that their school had had a positive experience of participating in the TSST programme. There was a consensus among interviewees that participating in the programme had achieved the outcomes the school had hoped for. Two interviewees specifically commented on the programme's success in addressing their department's capacity needs. One of them said that completing the TSST course had enabled the participating teachers (from other departments) to cover science lessons when required. Another respondent alluded to the financial benefits of participating in the programme, as their department received a £500 incentive payment from the DfE, which they had used to buy equipment.

"As a head of department, I've now got three members of staff within the school who I can call on if I can't cover all of the lessons. This year, we worked on our timetable, but we've still got a certain number of classes that we can't cover with a specialist [teacher]. We now know that we've got those members of staff that we can use instead."

(MFL, Head of Department)

The majority of interviewees said that impact of the TSST programme on pupil attainment was difficult to measure, especially since teachers had only completed courses in the 2017/18 academic year (and the interviews were conducted in June and July 2018). However, over half (five) of respondents believed that the programme would have a positive impact on pupil attainment in the future. Three interviewees felt that the programme had already had an impact on retention, as staff felt more satisfied and confident in their roles. One interviewee said that any CPD that provided staff with the opportunity to meet with other colleagues and learn about new teaching practices would make them feel more confident about teaching, which would naturally affect teacher retention levels as well as pupil engagement and attainment.

"I think [pupil attainment has] improved because traditionally maths is a very textbook-y lesson. [Teachers completing the TSST course] allowed us to do more activities, which, you know, obviously engaged the children more which means, for us, the maths grades went up. Because we're a special school, our targets are traditionally Es and Fs [...] by doing the course it gave us fresh ideas."

(STEM, Head of Department)

Similarly to the survey findings, the majority (seven) of interviewees indicated that their school planned to remain involved with the TSST programme. Half of interviewees (four)

did not suggest any improvements that needed to be made to the TSST courses, although several improvements were suggested by others (note these may not always necessarily align with the key objectives of the programme).

The most frequently-cited suggestion to improve TSST courses was related to the duration of courses, similar to suggestions made by the TSST beneficiaries who were interviewed (and the findings discussed earlier in this chapter). Three interviewees suggested that the course length be extended to allow teachers to develop more in-depth knowledge of their TSST subject. They also suggested that the programme could offer more advanced courses, covering Key Stage 5, which would increase teachers' confidence to teach different year groups. Other suggestions included more marketing materials for schools to showcase success stories, and for lead schools to keep schools updated on courses being delivered.

Appendix 1: Summary of fieldwork conducted for the STEM/MFL teacher supply and recruitment programmes evaluation

Strand	Audience	Data collection method	Purpose	Recruitment information	Fieldwork period	Sample size and cohort/academic year
Paid Internships	Programme participants: interns	Semi-structured telephone interviews	To gain an understanding of their experiences of the Paid Internships programme, specifically what attracted them to apply, their overall experience of the internship, the support they received throughout and whether or not the support they received was useful.	Email invitations were sent to 64 interns (who had consented to be re-contacted from the survey).	January to February 2018	Five paid interns who undertook an internship during June and July 2017 (cohort 2).
		Online survey	To gain a better understanding of what attracted them to the programme, their experience of the internship, and whether the programme has subsequently influenced their career plans.	A survey link was emailed to all 324 individuals who had completed their internship during June/July 2017.	August 2017 to October 2017	88 interns who took an internship during June and July 2017, achieving a 27% response rate.

	Senior leaders in participating schools	Semi-structured telephone interviews	To gain insights into the schools' experiences of delivering internships, specifically their recruitment strategies, delivery of the internships, and perceived impact.	All 24 schools who had delivered internship placements over the previous summer were invited via email.	December 2017	Two senior leaders from schools delivering placements for the Paid Internships programme.
		Online survey	To understand schools' motivations to offer Paid Internships, their experiences of doing so, and their perceptions of the successes of the programme, and potential outcomes and impacts.	A survey link was emailed to 46 schools (details collected via a pro-forma from 24 lead schools) who offered Paid internships to undergraduate students.	March to May 2018	Ten respondents who had responsibility for hosting internships within their respective schools.
	University providers	Semi-structured telephone interviews	To gain insights into their involvement in, and experiences of, the Paid Internships programme, specifically the effectiveness of their relationship with a partner school, marketing and recruitment strategies employed to advertise the programme, and their expectations and plans for the future.	Recruitment emails were sent to 22 representatives from the 17 universities involved with the Paid internships programme at the time of the interviews.	January to March 2018	Four respondents who had responsibility for the programme within their respective universities.

FTS	Programme participants: FTS undergraduate students	Semi-structured telephone interviews	To gain a better understanding of what attracted participants to apply, their overall experience of the programme so far, and the extent to which the support they received was useful and future improvements.	Email invitations were sent out to 65 participants.	September to October 2017	Five undergraduate students (cohort 1).
	Regional Training Centres	Semi-structured telephone interviews	To gain a better understanding of the delivery and perceived effectiveness of the FTS programme.	Email invitations to all seven RTCs who had delivered that cohort.	July to August 2017	Four respondents who had responsibility for the management, design and delivery of the FTS programme.
STEM International Recruitment	School-led networks	Semi-structured telephone interviews	To gain insights into the networks' experiences of the programme, the activities being undertaken by them, and their perceptions on the early impact.	Email invitations were sent to 15 schools who were participating.	July 2017	Three senior members who had responsibility for management of the school-led networks (cohorts 1 and 2).
	School senior leaders	Semi-structured telephone interviews	To gain a better understanding of school leaders' experiences of recruiting international teachers through the	Senior leaders from 25 schools were invited to participate in a semi-structured telephone interview. Ten of the	February 2018	Two respondents who had responsibility for the recruitment of

			STEM International Recruitment Programme particularly their motivations, roles and responsibilities, and effectiveness of delivery.	schools were affiliated to the Practicum Network and 15 were affiliated to the Quantum Network.		international teachers for MATs.
	Programme participants: international teachers (recruited through the programme)	Semi-structured telephone interviews	To gain a better understanding of the effectiveness of the current processes in attracting and retaining teachers, particularly their motivations, experiences of the application process, the level of support and their overall experience of the programme.	Email invitations were sent to 16 respondents (who had consented to be re-contacted from the survey).	January to March 2018	Five international teachers recruited via the STEM International Recruitment programme during 2016/17 and 2017/18.
		Online survey	To understand international teachers' experiences of recruitment through the STEM International Recruitment programme, and their experiences of teaching in a school in England, particularly their experiences of the recruitment process,	A survey link was emailed to the 63 international teachers recruited via the STEM International Recruitment programme during 2016/17. Of these, 37 were affiliated to the Quantum Network, and the remaining 26 were affiliated to the Practicum Network.	December 2017 to February 2018	21 international teachers recruited via the STEM International Recruitment programme during 2016/17, achieving a 33% response rate.

			motivations and impact of the programme.			
Spain's Visiting Teachers Programme	School senior leaders	Semi-structured telephone interviews	To gain a better understanding of experiences of recruiting international teachers through SVTP, particularly their motivations for recruiting teachers internationally, the effectiveness of the delivery processes, the support provided to international teachers, their overall experience of SVTP programme, and their perceptions of the impact.	Email invitations were sent to all 13 schools that participated in the pilot year of the programme.	January to February 2018	Four respondents who had responsibility for the recruitment of international teachers within their respective schools (cohort 1).
Undergraduates with opt-in QTS (STEM and MFL)	University providers	Semi-structured telephone interviews	To gain a better understanding of universities' experiences of being involved with the undergraduate opt-in QTS programme. In particular their motivations for providing opt-in degree courses, the successes and challenges of designing and delivering	At the time of the interviews, 17 universities had been awarded grants to develop and deliver 32 opt-in QTS degrees. A sample of 38 representatives from these 17 universities were contacted via email to	January 2018	Eight representatives from universities who offered opt-in QTS degrees.

			opt-in QTS programmes, the promotion and marketing techniques used, and the intended outcomes and impacts.	invite them to take part in the research.		
	Placement schools	Semi-structured telephone interviews	To gain a better understanding of placement schools' motivations and experiences of offering placements, how they were organised and delivered, and expectations and plans for the future regarding the placements.	Email invitations were sent to 13 schools that had offered placements to opt-in QTS students. Placement school sample information was derived from the 17 universities offering opt-in QTS degrees. Despite efforts to recruit heads of departments for interviews, only one agreed to participate.	March 2018	One respondent from a school who offered placements for the opt-in QTS programme.
	Programme participants: opt-in QTS undergraduate students	Semi-structured telephone interviews	To gain a better understanding of their motivations and experiences of the programme, specifically taster sessions, delivery of the modules, and how the programme has influenced attitudes towards a career in teaching.	Email invitations were sent to 13 undergraduate students studying for opt-in QTS degree programmes.	April 2018	Two respondents (cohort 1) who were undertaking opt-in QTS degrees in a STEM subject and were in their final year of their degree programme.

TSST (STEM and MFL)	Programme participants: teachers	Longitudinal survey (online and telephone)	To gain a better understanding of their experience of TSST particularly the usefulness and any subsequent impact.	<p>A baseline survey link was emailed to 3,630 teachers who had recently participated in a TSST course.</p> <p>A follow up link was emailed three months later to those who had agreed to be re-contacted from the baseline survey. Telephone surveys were also undertaken at this stage to boost responses.</p> <p>Responses from the two surveys were linked to assess if views had changed over time.</p>	<p>Baseline: November to December 2017</p> <p>Follow-up: April 2018</p>	<p>Baseline: 980 respondents (cohort 1), achieving a 27% response rate.</p> <p>Follow-up: 400 (113 via the online survey link and 287 through the use of Computer Assisted Telephone Interviewing), achieving a 41% response rate.</p>
		Semi-structured telephone interviews	To gain a better understanding of the experiences of those who had undertaken TSST courses, particularly motivations for completing a TSST course, their	Recruitment emails were sent to 111 MFL and 523 STEM TSST participants who had completed a TSST course between September 2016 and July 2017. These participants	December 2017 to January 2018	Ten MFL participants and 15 STEM participants were interviewed (cohort 1).

			experiences of the application process, and their thoughts regarding the content and delivery of courses. Respondents were also asked about whether the TSST course had had an impact on their teaching practices.	had agreed to be re-contacted following the survey fieldwork.		
	TSST Lead schools	Online survey	To understand lead schools' motivations for involvement in the TSST programme, their experience of designing and delivering the programme, and their views on any impact.	A survey link was emailed to the 117 schools who delivered TSST programmes at the time of the fieldwork.	June to July 2018	45 lead schools completed the survey, achieving a response rate of 38%.
		Semi-structured telephone interviews	To gain a better understanding of their experiences of delivering the TSST programme, specifically schools' motivations for becoming a lead school, strategies for promotion and recruitment, and the processes of	Recruitment emails were sent to all 148 lead schools who were delivering TSST at the time of fieldwork.	November 2017	Ten interviews with respondents from lead schools.

			designing and delivering the TSST programme.			
	Recipient Schools	Online survey	To understand the motivations of schools to upskill teachers through TSST, their thoughts on the partnerships developed with lead schools, and perceived outcomes of the programme.	A survey link was emailed to 225 schools (details provided by TSST participants with their consent) whose staff had participated in the TSST programme.	July 2018	30 schools completed the survey, achieving a response rate of 13%. (Note that we expect the rate was this low due to collecting the schools' details from participants directly).
		Semi-structured telephone interviews	To gain a better understanding of the experiences of schools who employed teachers who had completed a TSST course, particularly motivations for participating in the programme, the information they received about the programme, and their relationship with the lead school. Respondents were also asked about	Recruitment emails were sent to 261 STEM and 39 MFL heads of department or senior leaders from schools that employed teachers who had completed a TSST course. The sample was collated through an earlier survey completed by teachers that had undertaken the TSST programme.	June to July 2018	Eight head of departments/senior leaders participated in an interview (five STEM and three MFL).

			their views on the impact of TSST on their school.			
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