Assistive Technology (AT) Training for Schools

Evaluation report

September 2024

IFF Research

Contents

List of figures

List of tables

This research report was written before the new UK Government took office on 5 July 2024. As a result, the content may not reflect current Government policy.

Glossary

Assistive technology (AT) – an umbrella term that can, in the broadest sense, include any device, software or system that is used to support an individual who has some form of special educational need, disability or impairment. The AT Test and Learn training focused on the AT which is already available to most schools and often includes software built into standard hardware. This differs from specialist and advanced assistive technology which are more likely to be found in special schools and require greater training for both students and educators. The course signposted participants to resources that would help them if or when they needed to know more about specialist or advanced assistive technology.

Accessibility tools – usually free software built into standard devices (e.g. iPads, smartphones) or features built into regular software (e.g. the Microsoft Office suite) which provide various accommodations to make them usable by as many people as possible. This can include larger or simplified menus, adaptive visuals like contrast of font size, text-to-speech and dictation tools, etc.

Dictation tools or speech-to-text software – products that convert spoken words into written text. These are helpful for students who find writing or typing difficult.

Text-to-speech (TTS) – technology that converts written text into spoken words. These can read books or worksheets aloud to a student or read their own work back to them.

Screen readers – technology that reads aloud the words, including menus and navigation instructions, on websites or programmes, so that people can interact with them. These are often used by people with visual impairments.

Reading pens – compact handheld devices, not too much bigger than a pen, which scan printed text and read it aloud. They can be included in the wider category of Test-to-speech AT. These are especially helpful for students with reading difficulties.

Executive Summary

From March to July 2023, the Department for Education (DfE) funded a programme to train staff at 151 schools in the effective use of assistive technology (AT) for pupils with special educational needs and disabilities (SEND) or other needs. The programme, known as 'AT Test and Learn', was aimed at mainstream schools and cost £180,000 plus VAT. The DfE commissioned IFF Research to conduct a process and outcomes evaluation of the programme.

The overall aims of this evaluation were to assess the outcomes of the 2023 AT Test and Learn training on staff and to explore early impacts on wider measures such as progress, attainment, and behaviour of pupils particularly those with SEND and EAL (English as an additional language). Due to a combination of higher than expected attrition on the course and a low volume of responses to the post-course survey, the evaluation design was adapted to move away from a quantitative assessment of early impacts and instead focus on the wider impacts of using AT more effectively, in the case study schools.

The AT Test and Learn training programme aimed to:

- Upskill participants in the use of, assessment for and anticipated outcomes of AT.

- Give schools the tools to embed effective AT use in a long-term, whole school digital and/or SEND strategy.

- Provide training for schools in a way that limits the impact on staff workload.

- Add to the evidence base in this area to inform wider SEND training.

Methodology

The methodology comprised of:

- In-depth online virtual interviews with the Assistive Technology Test and Learn delivery partners before and after delivery.

- Online surveys: 117 surveys completed before (pre) and 36 surveys completed after (post) participating in training. Of the 134 participants who finished the course and still agreed to be contacted, 36 took part in the post-course survey – a response rate of 27%.

- Analysis of management information (MI) from the delivery partners, on the profile of schools which took part in the course and on course attendance.

- Case studies in four schools which took part in the training, covering two primaries, one secondary and one special school[1] in different regions.
- Depth interviews with a further six training participants.

Key findings

Attendance

The delivery partner reported that course recruitment had gone well, overall. The volume of expressions of interests they received (c.700) exceeded their expectations. This translated to 184 applications, with 157 schools enrolling and six withdrawing before the course began.

However, the percentage of participants that attended all five sessions of the course was lower than the pilot course which ran in 2022. Management information (MI) data provided by the course organisers indicates that about one-third of participants (34%) attended all five sessions, compared with 65% in the pilot course. Based on MI analysis and survey findings, non-attendance was largely as a result of unplanned circumstances such as illness or unforeseen issues arising in school such as safeguarding incidents.

Experiences of the course

Overall, participants were satisfied with the structure of the course. In the post-course survey, all participants (100%) were satisfied with the time allowed for inter-session tasks. Almost all (97% each) were satisfied with the duration of the sessions, the length of the programme and the expertise of the trainers.

Participants appreciated the opportunity to network with people from other schools and share ideas and experiences, but some felt that they would have liked more ongoing interaction among members in their group. More than eight-in-ten (83%) felt that the session groups facilitated sharing and receiving support between attendees. However, less than half (42%) of participants surveyed felt that the groups allowed them to build relationships with other course attendees outside of the course.

The vast majority of participants had a positive experience of the course. Out of 36 participants who responded to the post-training survey, 32 (89%) reported that the course had at least met their expectations. A third (33%) felt that it had exceeded their expectations, and tenth (11%) said that it greatly exceeded their expectations. In interviews, participants explained that they had got what they wanted out of the course, including increasing their knowledge of what AT is out there and "getting the conversation

---

[1] The inclusion of special schools among the participants to the training is discussed in Chapter 1

flowing" in their schools. This is reflected in the high proportion of participants (83%) who said that they would be likely to recommend the course to staff in other schools.

Outcomes from the course

In terms of confidence with different aspects of AT, before the training, less than one-in-five participants were confident in being able to identity, use, and assess the effectiveness of assistive technology. After the training, at least seven-in-ten were confident in all different prompted aspects of using AT. Almost all respondents (92%) were confident in using AT to support pupils in their learning, 81% were confident in sourcing relevant AT for their students' needs, and 78% were confident in their ability to identify the relevant AT for their students. The biggest increase in confidence was in sourcing AT (8% before, 81% after) and using AT (18% before, 92% after). However, the low base size in the post-survey (36) should be noted here.

From the qualitative interviews, participants mentioned that their biggest improvement, and the one that led to most change in their school, was their confidence around being able to identify and suggest potentially useful types of AT for their students. In some cases, this was after the course participants developed the confidence to work in partnership with the school's IT department on where and how to source different types of AT. Where some more specialised schools already had experience of using AT for some of their students, the course helped them expand their knowledge of more easily accessible, free or more affordable types of AT that can be implemented more broadly compared to the highly specialised, expensive AT they were already using.

> It helped me on my journey. I'm more confident with AT now but I know I'm not quite there yet. One of the biggest things I took away was that you don't have to buy new fancy machines - we just need to better utilise tools within resources the school already. – *Training participant, primary, Yorkshire and Humber*

Before going on the course only a small percentage of participants thought their school used AT well to support their students, but this increased to more than half after the course. Most participants considered that their school was using AT well particularly to help their SEND students (86%), an increase from 21% before the course.

The course had a positive impact on how well AT was being used in participants' schools. Before the course, 91% of participants disagreed that their school used AT to its full potential. After the course, this declined to 44% who disagreed, while 39% neither agreed nor disagreed, and 17% agreed. In addition, about nine-in-ten (89%) agreed that their school was making positive changes towards using AT to its full potential, with a quarter (25%) saying they agreed strongly.

This was corroborated by the qualitative findings. Schools were still in a transition period, where they were improving their use of AT both in terms of how well it is used, and in terms of who it is used for, where and when. This was described as a gradual process, which they were still in the early stages of, but they felt much better equipped to take on the challenges than they were before the course.

> Everything was useful, but I just had to make sure that it was useful at the right time. Some of the learnings we've not had a chance to implement yet but I'm sure they will prove very helpful once we get to that stage. – *Training participant, special school, South West*

The AT training was designed to be shared further and the knowledge gathered cascaded and embedded in the rest of the school. Following the course, almost threequarters (72%) of respondents said they had already started to share the knowledge and practice they gained with their colleagues, with the remaining 28% saying they had not started yet but had plans in place to do so.

Similar findings were seen in the qualitative interviews, with training participants most commonly indicating that they had shared their knowledge or planned to through a meeting, presentation or one-to-one training with other teaching and support staff in the school.

> At our INSET day, I presented for a couple of hours to the whole teaching staff body including Learning Support Assistants (LSAs), and we trialled some new technologies including some of the AT covered in the course. – *Training participant, primary, South East*

Wider outcomes from using AT

The majority of participants indicated that the use of AT in schools has had a positive impact on various aspects, with the most common impact cited being the behaviour and engagement of SEND and EAL pupils (86% and 67% respectively). Over two-thirds (67%) of participants felt AT has had a positive impact on support staff time, and almost half (47%) indicated that using assistive technology has had a positive impact on the use of teacher time.

In the qualitative interviews and case studies, the impact on the use of AT on teacher and support staff time depended on the type of AT used. Teachers and TAs felt that AT simplified many tasks and allowed mainstream staff to spend their time helping more students across the class, rather than reading or scribing to a few.

> The teacher would have previously gone around reading to each individual student and she had 4 of them on her class at different levels. She is now able to spend her time assisting more students rather than reading for the few pupils. – *Training participant, special school, South West*

Teachers interviewed during the case studies reported that there was less disruption in the classroom, which helped to foster a positive learning environment.

> It helps the children to focus on the task, because the task is more accessible for them. This means there is less low-level disruption in class and makes the class a more positive environment. – *Teacher, primary, East Midlands*

Following the AT training course, participants reported significant improvements in the independence (92% and 78%) and confidence (89% and 78%) of SEND and EAL pupils respectively. Around six-in-ten (61%) also reported improved confidence and over half (58%) reported improved independence levels in non-SEND and non-EAL pupils.

Additionally, the use of AT had positive impacts on the behaviour and engagement of SEND pupils (86%) and EAL pupils (67%) in a majority of participating schools. It also had a positive impact on the levels of attainment of SEND pupils (64%) and EAL pupils (47%).

This was apparent in the qualitative interviews and case studies, where AT was seen to have many positive impacts on pupils, particularly with reading and writing, which increased their confidence and independence:

> We've seen huge changes to their esteem and confidence. It's increased their vocabulary and it's really helped to plug some reading gaps, especially after COVID. – *School leader, primary, North West*

> One particular pupil, he had low confidence because his writing just didn't match with what he was trying to say. It was like a lightbulb moment for him, that his writing was a on a par with his peers. It opens a different world for them that they are producing work in line with what their peers are doing. - *Teacher, primary, East Midlands*

> I use it [speech to text] with one SEN/EAL child in Year 1. He's gone from no mark making at all to a page of writing using the iPad since the start of the year. – *Teaching Assistant, primary, North West*

The interviews with pupils supported these findings, and all the pupils interviewed felt more confident using AT such as Immersive Reader, reading pens and speech to text to

support their reading and writing. In some cases, it led to students reading more stories and sometimes even whole books, and allowing their creativity to shine by dictating compositions which they would have otherwise struggled to write.

> I really like using it [speech to text]. It makes me feel confident. – *Pupil, primary school, North West*

Parents interviewed had seen very positive outcomes for their children, particularly in terms of improved behaviour and confidence. The parent of a Year 5 pupil who had a confirmed diagnosis of autism but did not have an EHCP, mentioned how much calmer their child was when coming back from school after they started using AT in Year 4.

> He's not coming home with that Coke bottle effect. He was having angry outbursts, crying and stomping and getting down on himself. That happens a lot less now. He's proud of his work and wants to talk about it now. – *Parent, primary, East Midlands*

Year 6 pupils and their teachers highlighted two areas of potential concern. One was whether pupils using AT to support with reading and writing would be able to use this during their Standard Assessment Tests (SATs). Teachers in two of the case study schools were unsure about whether this would be possible and thought the guidance on this should be clarified.

Similarly, some teachers discussed the transition to secondary school and were unsure about whether their Year 6 pupils would be able to continue using AT if they did not have an Education Health and Care Plan (EHCP). They were planning to discuss this with the relevant secondary schools once the information about secondary school places was confirmed.

Conclusions

Overall, the Assistive Technology Test and Learn training programme was welcomed by participants and had a positive impact on their (self-reported) awareness of AT and how it could be used in their school to support pupils. Evidence from the post-training survey and the qualitative case studies and depth interviews also found that course participants were cascading learnings to other staff in their schools and using the knowledge gained from the course to increase the use of AT to support individual pupils.

AT itself had a transformative effect on the independence, engagement and progress of the individual pupils who were using it, especially to help with writing. Embedding AT as part of a broader whole-school approach was underway but was a gradual process.

Introduction

From March to July 2023, the Department for Education (DfE) funded an Assistive Technology (AT) Test and Learn training programme for 151 schools, focused on upskilling school staff in identifying and implementing appropriate assistive technology for pupils with special educational needs and disabilities (SEND) or any other needs that may be helped by AT, aimed at mainstream schools. The DfE commissioned IFF Research to conduct a process and outcomes evaluation of the training programme.

The AT Test and Learn training programme followed a pilot programme which was delivered in 2022 to fewer schools (79). The process evaluation of the pilot programme identified evidence of promise for further rollout with participants reporting improved awareness, understanding and confidence in using AT and assessing its effectiveness. However, the pilot evaluation also identified several potential improvements, which were implemented for the Test and Learn programme. These included extending the duration of the course by building in longer intervals between the sessions, so that participants had more time to interact between the sessions and to implement their learning.

Aims and objectives

The overall aims of this evaluation were to assess the outcomes of the 2023 AT Test and Learn training on staff and to explore early impacts on wider measures such as progress, attainment, and behaviour of pupils particularly those with SEND and EAL (English as an additional language). Due to a combination of lower than expected attendance at the course (discussed in Chapter 1) and a low volume of responses to the post-course survey, the evaluation design was adapted to move away from a quantitative assessment of early impacts and instead focus on the wider impacts of using AT more effectively, in the case study schools.

The AT Test and Learn training programme aimed to:

- Upskill participants in the use of, assessment for and anticipated outcomes of AT.
- Give schools the tools to embed effective AT use in a long-term, whole school digital and/or SEND strategy.
- Provide training for schools in a way that limits the impact on staff workload.
- Add to the evidence base in this area to inform wider SEND training.

The key research questions underpinning the evaluation were as follows:

Implementation:

- Are there any improvements that could be made to the implementation?

- How effectively was the AT training programme implemented (with a specific focus on the training elements that have been changed since the original pilot)?
- Which components of the programme were most/least effective?

Participant (experiences of the training:

- What were participants' expectations for the training and were they met?
- What were their motivations for attending the training?
- What were the key take-aways from the training for participants?
- Did the training lead to participants implementing changes in their practice?

Impact and outcomes:

- Did the training lead to increased awareness, confidence and use of AT for training participants and wider school staff?
- Did the training lead to improved independence, engagement, wellbeing, behaviour and confidence among pupils with SEND, EAL pupils, and their peers?
- Did the training lead to improved progress, and attainment for pupils with SEND?
- Did the training lead to more effective use of teacher and support staff time?

Methodology

A mixed method approach was designed for the evaluation involving:

- In-depth online virtual interviews with the Assistive Technology Test and Learn delivery partners before and after delivery, to understand aims and structure of the programme, how it was delivered, and their experiences of designing and delivering the training.

- Online surveys: 117 surveys completed before (pre) and 36 surveys completed after (post) participating in training, to explore changes in training participants' perceptions of the course, experiences of participation and self-reported outcomes.

  The post-training survey was conducted 3-4 months after the end of the course, in October and November of the following academic year, to allow more time for participants to have started using their learnings from the course. Of the 134 participants who finished the course and still agreed to be contacted, 36 took part in the post-course survey – a response rate of 27%. The longer gap between the end of the course and when the survey took place is likely to have contributed to the lower response rate, compared with the pilot course evaluation.

In the pilot evaluation, the post survey was conducted immediately after the end of the 5-week training course, leading to a response rate of 87% (61 out of 70 schools who completed the pre-survey). The pilot did flag that despite the high response rate, the short timeframe in which the research was conducted did not allow for changes to be made in the schools to gauge impact of the training, which is why a longer timeframe was used for this evaluation.

- Analysis of management information (MI) from the delivery partners, on the profile of schools which took part in the course and on course attendance.

- Case studies in four schools which took part in the training, covering two primaries, one secondary and one special school[2] in different regions. The case studies involved interviews with the training participant, a member of the school's Senior Leadership Team such as the Headteacher or Deputy Headteacher, teachers, and teaching assistants (TAs). In addition, interviews or mini groups were conducted among pupils using AT to explore their experiences and views. In total, the four case studies involved qualitative research with 23 school staff and 16 pupils. Interviews were also held with three parents of children using AT, who were recruited via the participating schools.

- Depth interviews were conducted online with a further six training participants.

Key measures were designed to focus on areas related to the AT Test and Learn training Logic Model (Appendix 1). The Logic Model is a visual representation of a programme's components, how it is expected to operate and how it is expected to benefit key audiences. It illustrates how activities are translated into impacts, and the context and mechanisms which influence that. The areas covered by this evaluation include:

- levels of awareness of AT and its application,

- levels of staff confidence in using AT,

- staff ability to identify, use and assess AT relevant to pupils' needs,

- whether AT is being embedded in a whole school approach

- barriers to the identification, assessment and use of AT.

Methodological considerations

There are a number of methodological considerations to note when considering the findings provided in this report.

Although the volume of participants was expanded since the pilot (151 compared to 79 in the pilot), the course still covered a relatively small number of schools. Furthermore, as

---

[2] The inclusion of special schools among the participants to the training is discussed in Chapter 1

shown in Table 1.1 some of the schools did not complete the pre- and post-training surveys, further reducing the sample size available for analysis. Due to the small sample size, quantitative sub-group analysis is not possible and planned secondary analysis using a control group did not proceed.

Table 1.1 Survey response rates

	Pre-survey	Post-survey	Both Surveys
Total participants available	151	134	134
Total survey completes	117	36	33
Response rate	77%	27%	25%

Course participants were selected from a group of schools who expressed interest in taking part. This limits the representativeness of the sample, as participants are likely to already be interested in learning more about assistive technology. However, among participants there was a broad mix of schools by phase, school type and region.

In some schools, the designated participant was unable to attend all the training sessions and a small number of schools changed their nominated participant to a different member of staff during the course. This may have impacted upon the comparability of the pre- and post-training survey data and the responses to the post-training survey. Declining attendance across the course is likely to have contributed to the low response rate to the post-training survey.

The post-training survey and qualitative interviews took place 3-4 months after the end of the course. This was to allow sufficient time for schools to start implementing any plans they had to widen effective use of AT and for early impacts to emerge. However, some participants in the qualitative research reported that their plans were still nascent, and they had not yet done as much knowledge-sharing or implementation as they would have liked or as they plan to do.

Quotes from the depth interviews and from the case studies are included throughout the report, alongside narrative findings. All quotes from participants to the course are attributed as "Training participant" regardless of their job role within their school. Where quotes are attributed to "Teacher", "Teaching Assistant" or "School leader", these refer to the job roles of the other school staff interviewed as part of case studies, in addition to the participant. Interviews with students and parents or guardians are attributed simply as "Student" and "Parent".

Report structure

The rest of this report is set out as follows:

- Chapter 1 provides more detail about the structure of the course, how it was delivered, and what changes were implemented based on feedback from the pilot programme.

- Chapter 2 explores participants' experience of the course and examines attendance.

- Chapter 3 discusses the outcomes of the course in terms of knowledge, skills and confidence, use of AT to support pupils within school, and what challenges were still being faced, based on self-reported survey data from participants and qualitative follow-up research.

- Chapter 4 explores the extent to which course participants had been able to share knowledge from the course and feed this into a whole-school approach to deploying AT.

- Chapter 5 looks at the wider outcomes of using AT within mainstream schools and how this has impacted teachers, teaching assistants (TAs) and pupils.

- Chapter 6 presents the conclusions of the evaluation and identifies learning points for any further rollout of training on the use of AT.

Case study summaries are included in Appendix 2 of the report.

Chapter 1 About the Assistive Technology Test and Learn training programme

This chapter provides an overview of the aims, structure and scope of the Assistive Technology (AT) Test and Learn training programme funded by the DfE, which ran in Spring and Summer 2023. It also highlights the changes that were made to the programme after the pilot in 2022.

Overview

The Assistive Technology (AT) Test and Learn course which took place in 2023 was funded by the DfE, developed in partnership with and delivered through nasen and Microlink. Nasen led the organisation and management of the course, including managing the school application process and leading communications with participating schools. Microlink developed the course materials in partnership with nasen and the DfE and led the delivery of the training.

It was the second iteration of the course, after a pilot conducted in 2022. It aimed to build on the pilot by training more schools over a longer period and with more impact data to gain a fuller picture of how AT training can support wider SEND continuing professional development. Since the pilot, some changes had been implemented, based on the lessons learned from the evaluation of the first course, and more detail about these changes is given in the next section.

The course ran between March and July 2023, across the spring and summer terms. It aimed to cover around 150 schools across England, an increase from the 79 schools who participated in the pilot, and it continued to be aimed towards mainstream schools.

The training participants were also referred to as AT Champions, as the training aimed not just to give participants a better understanding of AT availability and use, but also to give them the tools an empower them to share the AT knowledge further to their colleagues and peers, and to integrate AT into a whole-school approach, into budget and policy considerations, lesson planning, etc.

Nasen advertised the course, mainly via email to their large roster of contact details with schools, accumulated over their years of practice and delivering training for schools. They received expressions of interest from around 700 schools from their initial invite email. This converted to 188 completing their application upon receiving more information, and 151 schools being enrolled on the course. Although mainstream schools were prioritised, due to various clashes and constraints, some schools could no longer attend, which freed some spaces to be taken by special schools who considered they would benefit from the course despite it being designed with the needs of mainstream schools in mind.

Nasen aimed to recruit a wide range of schools in terms of phase and regional distribution. Applicants held a range of job roles within the schools, which was taken into account when grouping participants into cohorts, as well as in the analysis phase for this evaluation.

The profile of the schools selected to attend the course (excluding those who had to withdraw and were replaced) reflected this. Just over half of the schools enrolled were primary schools (58%), 39% were secondary schools and 3% were categorised as other or unknown. Distribution across regions was fairly uniform, with each region having between 11 and 19 representative schools (between 7% and 13% of all participants). In terms of roles, participants were mainly senior leaders (29%) and SENCos (62%), with a smaller proportion who were either teachers without SENCo responsibility (7%) or TAs (3%).

Course structure and changes implemented since the pilot

A process evaluation of the pilot conducted in 2022[3] found that the majority of AT Champions were satisfied with the format and the content of the sessions, the inter-session tasks and the resources available. In addition, they also identified learning points and suggestions of what could be improved for any future training. These are summarised below:

- Making aims clearer to participants at the start of the programme.

- Focusing more on giving participants practical knowledge of how to use AT tools.

- Including more content and support on whole-school approaches to using AT.

- Building in more time to look at supporting resources.

- Making inter-session tasks more relevant.

- Making programme longer to give more time for inter-session tasks and to digest, share and implement learnings.

- Changing format of delivering opening and closing sessions.

- Creating more awareness of peer networking opportunities.

As a result, some changes to the structure of the course were implemented for 2023. The participating schools were split into 15 groups of approximately 10 schools each, according to school region and participant job role, accounting as much as possible for participant availability. This was done as a response to one of the pilot recommendations, to group together schools form the same region to facilitate lasting relationships, leading

---

[3] Cooper Gibson Research (2022) Evaluation of the Assistive Technology Training Pilot, DfE

to continued information sharing and cooperation between participants, as grouping for the pilot were done exclusively based on availability.

For each group, the course was delivered in five sessions, held online over Zoom. Each session was around one hour long, roughly one month apart. Although the number, length of sessions and online delivery were the same as in the Pilot, the time between sessions was increased from the weekly interval of the pilot to monthly, to give participants more time to engage with the inter-session tasks and to start implementing some of the learning from the course.

Inter-session tasks were tasks that participants were encouraged to think about or start implementing in their school between the sessions. For example, participants were asked to do a self-audit exercise at the beginning and end of the course, to help them identify their school's key areas for development where they were in term of their progress with using AT and find a pathway for improvement. Other inter-session tasks included assessing the need for AT for one of their students, and identifying possible types of AT from which they would benefit.

Each session was organised in sections: a teaching introduction, then a group discussion and knowledge and experience sharing between participants. This allowed participants to receive and absorb new learning and also to discuss and share learnings from their experience with the inter-session tasks. The sessions were structured broadly around:

- Information on types and examples of AT available
- Assessment of pupils' AT needs
- Reviewing the AT implemented
- Embedding AT in a whole school approach

The course organisers offered participants a range of written and video resources which they could interact with in their own time.

Participants had the opportunity to change groups if they had other engagements that clashed with their original session time. The slides and resources for each session were also shared with participants, including absentees, so that they could catch up in their own time and/or refer back to the slides as needed in the future.

At the end of the programme, schools were awarded one of three badges - Explorer, Innovator, and Transformer – to recognise the steps they had taken by the end of the course and to incentivise them to work on incorporating AT into their operations and policies. Explorer level badges were the baseline level for everyone who participated in the training programme and submitted their end of programme self-reflections to Microlink, indicating they understood what they needed to do and they were going to proceed accordingly but had not done it yet, with self-rated scores mostly in the 0-3 range. The Innovator badge meant that the majority of self-reflections were at a level

which showed that actions wer9e being taken but there was more to be done, with self-reflection ratings in the 4-6 range. The Transformer badge was reserved for those where the majority of self-reflections were rated at 7 or above, with none under 4. This was awarded to a few schools who were making very good progress but who tended to have started their AT journey before the course. The majority of the schools who completed their end-point self-assessment received an Innovator badge.

Chapter 2 Attendance and experience of the course

This chapter explores participants' experiences of the course including their motivations for taking part, their attendance levels and any barriers to attending. It also outlines participants' views on the structure and content of the course and their overall assessment of the course, including any improvements they would suggest.

Motivation for attending the course

Findings from the pre-training survey showed that participants' motivations for taking the course mostly centred around wanting to support pupils better and use AT more effectively. As shown in Figure 2.1, the two most common reasons, each selected by approaching two in five participants, were:

- To support pupils more effectively (38%).

- To use AT more effectively (35%).

One-third of participants also pointed to a lack of understanding or knowledge of AT as part of their reason for signing up to the course.

Figure 2.1 Motivations for signing up to AT course

Motivation	%
Support pupils more effectively	38%
Use AT more effectively	35%
Lack of knowledge / understanding of AT	32%
As part of SENCO role	24%
As a result of an increase in pupils with additional needs	14%
Increase independence of pupils with additional needs	11%
Looking for new/varied ways to support learners	11%
New to job role	9%
Use existing school resources more effectively	9%
Share information with and support other staff members	9%
Use budget as efficiently as possible	9%
Increase existing knowledge of assistive technology	8%
Create a consistent approach to AT across the school	7%
Other	5%

Base: Pre survey, All participants, (117). Reasons given by less than 5% of participants not shown.

In the qualitative interviews, participants described a desire to provide better support for their pupils, recognising that there were many pupils struggling with reading, writing or concentration.

We were hoping to get ideas on how to support children who were having difficulties with written communication. – *Training participant, primary, North West*

Others pointed to a lack of confidence around or understanding of AT, with some saying that they had been interested in AT but had not tried using it before. Many described a mix of these two reasons. One participant felt that although they were confident with technology more generally, they did not feel like they knew enough about AT to give pupils the best opportunities.

I use technology myself really confidently, but I don't have accessibility needs so understanding the tech that the children are using all the time was an issue for me. I wanted to upskill myself so that I felt we were giving the children the opportunities that they needed to be successful and improve their independence. – *Training participant, secondary, South East*

Participants also mentioned wanting to know more about what kinds of AT were available and how they could use it more effectively.

A better understanding of what tech is out there and ideas of how we could incorporate it into what we're already doing. – *Training participant, secondary, South East*

To see what is readily available on the market for our learners when they leave…to college. – *Training participant, special school, East Midlands*

A few participants also said that using technology or AT more effectively was part of their schools' wider improvement plan or SEN action plan. One participant explained that their school was going through a reorganisation of their policies on how to best serve their pupils including through the use of AT.

It kind of came in at the right time for our school. Our designation changed so it was a very good time to implement some changes based on it [the course] gradually. As SENCo, then I can implement those changes for students and with the whole school as well. –*Training participant, special school, South West,*

One school mentioned that the increased use of technology within their school during the COVID-19 pandemic motivated them to learn more about AT.

Recruitment to the course

The delivery partner reported that course recruitment had gone well, overall. The volume of expressions of interests they received exceeded their expectations and they reported that they were able to hit the recruitment target ahead of schedule despite beginning the process later than planned.

The delivery partner outlined the following steps taken during recruitment:

- They sent out a bulletin to around 77,000 schools in their network to let them know that the programme was available and that there were 150 places. They included a link to the pilot evaluation report.

- They also wrote to 152 Local Authorities asking them to disseminate information about the AT programme.

- They asked schools to send in expressions of interest, explaining that there was no guarantee that they would have a place.

- They received around 700 expressions of interest, which converted to applications from 184 schools.

- 184 schools were offered a space and 157 confirmed (of which six withdrew before the start of the course).

The delivery partner attributed the successful recruitment to a "tailored approach to communications" and leveraging existing relationships. They reported that this was an improvement on the communication during the pilot course, which they felt was not as engaging and was less direct.

Communication with course participants

Communication from the provider to the course participants was sufficiently detailed and helpful. All training participants interviewed were satisfied with the level of information they received from the training providers, with most saying that the information given was helpful and that they felt they had all the information they needed before starting the course. This included links to additional information for participants to access if needed as well as an overview of the sessions, timings and groups.

One participant felt that some of the material they had seen before the course had been particularly clear and specific, leaving them with high expectations for the course. Another felt that the information they received increased their anticipation for the course.

> We had seen some materials…so because of that we had high hopes
> and expectations because I think other materials [on other courses] that
> we've seen have been quite vague and quite muddy, didn't really give
> any specifics. – *Training participant, primary, South East*

> There was enough to whet the appetite, so it almost kept [you] more
> interested for when the course itself was being presented. – *Training
> participant, primary, North East*

Participants' satisfaction with communication before the course aligns with the delivery
providers' report that successful recruitment was facilitated by tailored and engaging
communication materials.

Many participants were also happy with the level of communication with training
providers throughout the course, specifically pointing to the usefulness of receiving email
reminders as well as receiving slide packs after each session.

> I thought the communication was really good actually. I had a lot of
> emails, reminders about sessions, it was really useful to have the
> overview of the sessions before anything happened, so I was able to put
> those in my diary. There was one session I missed a bit because I had a
> safeguarding issue, but all the slides were sent to me, so it was easy to
> catch-up on anything I've missed. They were very efficient with it. –
> *Training participant, special school, South West,*

Some participants also commented on the responsiveness of the delivery partners
whenever they sent questions via email.

Attendance

Data on attendance

This section will discuss levels of course attendance amongst participants based on data
provided by the delivery partners. Participants from 157 schools were registered to take
part in the course, with 6% of schools (9) changing the member of staff participating
during the course. Six schools (4% of those initially registered) withdrew from the course
before the first session; these are excluded from further analysis.

According to management information (MI) data provided by the course organisers,
about one-third of participants (34%) attended all five sessions. A further three-in-ten
(29%) attended 4 sessions (Figure 2.2). Overall, therefore, almost two-thirds of
participants (63%) attended at least four of the five sessions. Sessions 1 and 3 were the

most well-attended (64% of participants), while Session 5 had the lowest attendance (50% of participants).

Less than one-in-ten (8%) participants only attended one session, and 3% did not attend any of the sessions. One-in-ten participants (11%) officially withdrew from the course, with the highest proportion withdrawing before session 1 and the number of official withdrawals then decreasing with each session. However, there was a steady drop-off in attendance with fewer people attending each subsequent session.

Attendance levels during the pilot course were higher, with just under two-thirds (65%) attending all 5 training sessions (compared to 34% of participants in the 2023 AT course). There was also a less steep drop-off in attendance between the first session of the pilot course (87% of participants) and the fifth session (76% of participants).

Figure 2.2 Number of sessions attended by course participants
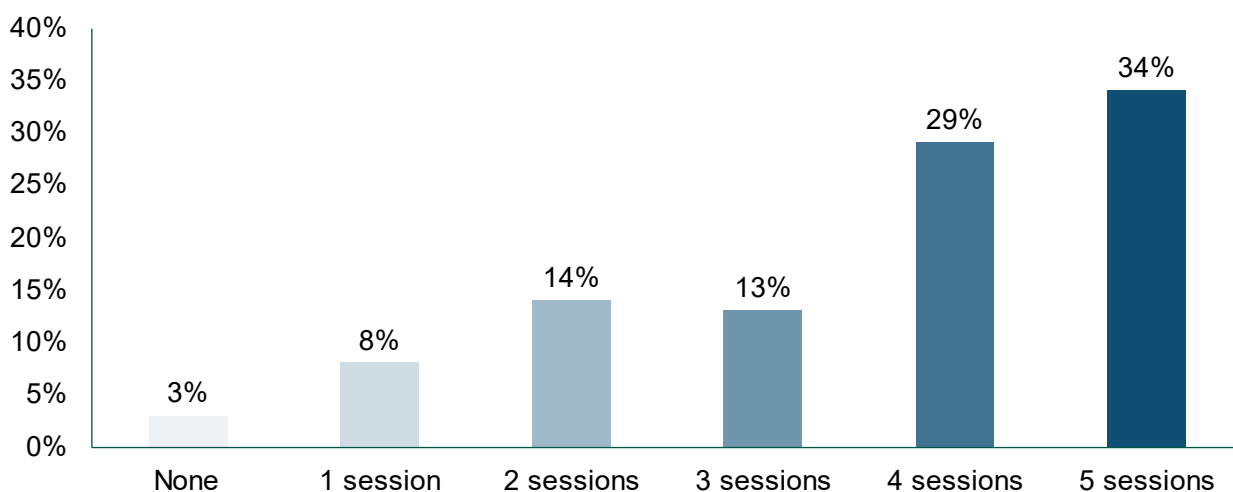
Base: MI exit data, All participants excluding those who withdrew before the first session (151).

Participant characteristics and attendance

Just over half (54%) of participants in the course were SENCos, 18% were assistant or deputy headteachers, 9% were headteachers, 6% were teachers and 4% were inclusion managers. There was a spread of job roles across those who attended fewer sessions, so there did not appear to be a link between job role and attendance.

Participants' experience of attendance

In the interviews, participants were mostly positive about their ability to attend the course sessions. Most who reported that they had experienced little or no challenges with attendance said that it was because they had little to no classroom hours or that their role was a non-teaching role. Others who did have teaching responsibilities said that the session was either scheduled on a non-teaching day or that they requested to change

their group in order to attend on a non-teaching day. These participants reported that the delivery partners were "very accommodating" about their need to change groups.

A few participants reported that while they could attend the course, other colleagues who were originally designated to attend could not because of their teaching responsibilities.

One participant who missed a session because of a safeguarding issue appreciated the opportunity to catch up on what they missed using slides that were sent afterwards.

> They offered a different session, but with my diary, because I need to book things in about a month in advance, I wasn't able to make it, but they sent everything that was covered in that session. So, I felt like I was able to be up to date with whatever I'd missed. And then those things were covered at the beginning of the next session too. — *Training participant, special school, South West*

However, another participant reported that they were motivated to attend all sessions because recordings were not immediately available and would not include the discussions among participants. They felt that this made it more important to attend the sessions "live".

Barriers to attendance

Absences and withdrawals

Non-attendance was largely as a result of unplanned circumstances such as illness or unforeseen school incidents. Based on emails between 40 participants and the delivery partners, the most common reasons for participants missing a session were illness (7) and a safeguarding incident occurring at their school (6). Other reasons given for missing a session included clashes with other planned meetings (and not being able to attend any of the other groups' sessions), covering teaching due to staff absences, and other unspecified urgent demands at school. One participant also said that they missed a session due to participating in industrial action.

Survey findings were in line with MI data findings, with unplanned situations such as safeguarding being the most common barrier to attending all sessions. As shown in Table 2.1, 11 out of the 14 participants who completed the post-training survey but who did not attend all sessions reported that this was due to some unforeseen circumstance that arose last minute. Fewer participants reported that it was because the session clashed with a planned school responsibility (4 participants) or a personal reason (3 participants).

Notably, none of the 14 participants answering this question reported that the session was irrelevant to themselves or their school, or that they felt that would not be able to make sufficient contributions to the session.

Table 2.1 Barriers preventing participants from attending all sessions

Barrier to attendance	Number of participants
Unplanned/unforeseen school situations arose last minute (e.g. safeguarding)	11
The session time overlapped with other planned school related responsibilities (e.g. exam facilitation, meetings)	4
Personal reasons (e.g. sickness, caring responsibilities)	3

Base: Post survey, Participants who did not attend all sessions (14)

Delivery partners regarded the drop in attendance as "disappointing" and reflected that it became more difficult to keep participants engaged later in the course.

> "The drop-off was disappointing…I would say the first part of the course was the bit that was the most interesting and the tail end was perhaps something that required them to go away and do, which they did not have time to do. — *Delivery partner*

They suggested that the timing of the course (rather than its duration) might have been a factor, explaining that because the summer term is full of activities, teachers would have had multiple competing priorities.

> The summer term comes with a number of problems. It comes with school ending, comes with school exams, comes with school trips. You know all these things that require teachers to step out of their normal curriculum type role and ended up having to do other pieces of work. So, we knew pretty quickly that sometimes it was really challenging for some people to attend. — *Delivery partner*

However, most participants appeared to engage with session materials despite not attending sessions. All but one of the surveyed participants (13) who did not attend all sessions reported that they made use of the materials for some of the sessions that they missed, including completing the inter-session tasks.

It is important to note that a relatively small proportion of the participants who did not attend all 5 sessions completed the post-training survey or participated in the qualitative phase of the research. It is therefore difficult to draw a firm conclusion on the reasons for non-attendance (especially later in the course) and whether they might have been related to lowered interest.

Participants' views on the structure of the course

Overall, participants were satisfied with the structure of the course. As shown in Figure 2.3, more than nine-in-ten participants completing the post-training survey agreed that each of the outlined aspects of the course structure were suitable. All participants (100%) were satisfied with the time allowed for inter-session tasks. Almost all (97% each) were satisfied with the duration of the sessions, the length of the programme and the expertise of the trainers.

Figure 2.3 Level of agreement among participants that different aspects of the training programme were suitable
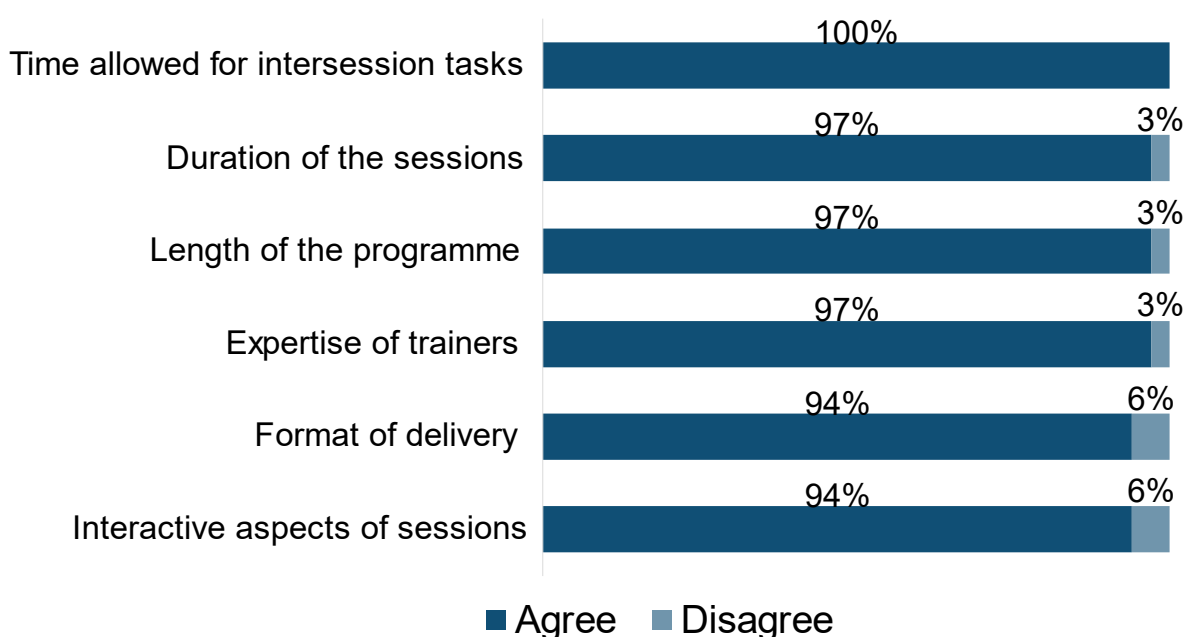
Base: Post survey, All participants (36).

During interviews, participants explained that the time between the inter-session tasks meant that they were not arduous and that it allowed them to be "useful and thought-provoking." This was facilitated by the time between the sessions being long enough to have the time to consider what was covered but not too long that they would forget what the session delivered.

> I thought they were spaced out quite nicely because you were able to think about what you had done and do something from it. As a school, because we were going through so much change, we are still going through the change, and we are able to go back and use what I learned in the sessions as we get to being able to implement them. We are still implementing changes at a slow pace at the moment. — *Training participant, special school, South West*

It gave you time between the sessions to try things out, so you weren't just jumping in on it. –*Training participant, primary, East Midlands*

Although just one survey participant was dissatisfied with the with the duration of the sessions, during the case studies, a different participant explained that they would have liked them to be a little longer.

You start to get your teeth into discussion. Then you had to move on. I mean, they did pace it so you didn't feel bored, but sometimes, I felt like, I could have done with a little bit longer to listen to that. – *Training participant, special school, East Midlands*

Participants were also largely happy with the online delivery format, reporting that it made it convenient to attend the course. They also widely praised the trainers, reporting that they were "brilliant", "understanding" and "light-hearted". One participant felt that the trainers understood the pressures of working in a school.

The course leader appreciated that school life was manic and even small steps were praised. — *Training participant, primary, South East*

The people who led the course were very dynamic, very engaging and were prepared to listen. – *Training participant, special school, East Midlands*

Another participant appreciated the variety of trainers delivering the sessions, which helped to make the course more engaging.

[It was] great there were a couple of different people who ran the course. You didn't get fatigued by just listening to the one person all the time and they would have a conversation between them as well. – *Training participant, primary, Yorkshire and the Humber*

Participants' views on knowledge-sharing and networking within the course

Participants appreciated the opportunity to network with other people from other schools and share ideas and experiences, but some felt that they would have liked more ongoing interaction among members in their group.

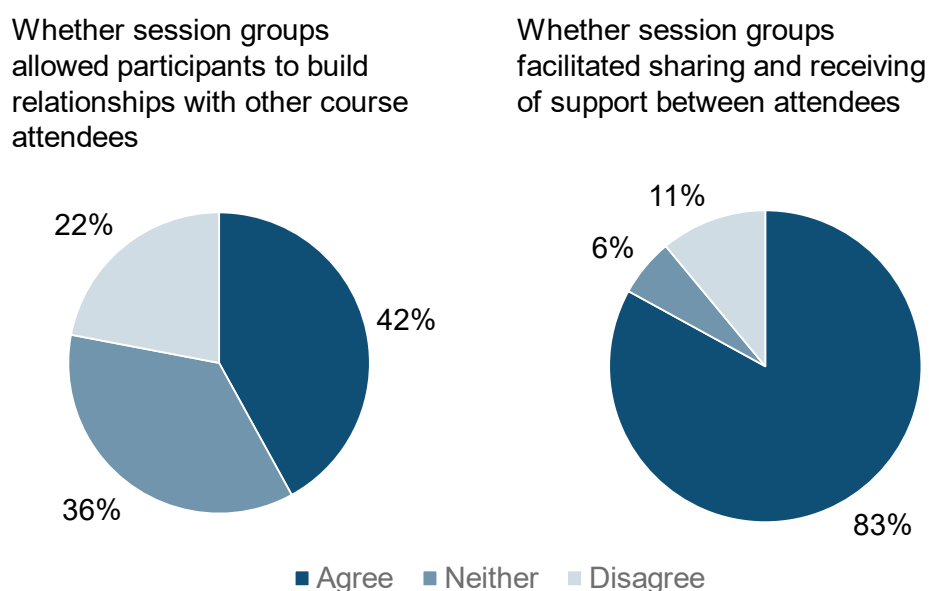Most participants were happy with the chance to network. As shown in Figure 2.4, more than eight-in-ten (83%) felt that the session groups facilitated sharing and receiving support between attendees. Many participants interviewed enjoyed the conversations with other participants and found it interesting to share and discuss how other schools were using AT, what helped and what challenges they faced. Participants reported that

the course leaders encouraged collaboration and appreciated being able to learn lessons from the successes and setbacks of other participants. Others were positive about the knowledge sharing and collegiate feel to the course.

> I thoroughly enjoyed it. There was a feeling that everyone is in it together and we were encouraged to share experiences with other members of our group. –*Training participant, primary, East Midlands*

However, many would have liked the chance to build ongoing relationships. Less than half (42%) of participants surveyed felt that the groups allowed them to build relationships with other course attendees. A few participants explained during the interviews that they would have appreciated being able to pair up with a 'buddy' school they could work with or a group of other 'champion' schools.

Figure 2.4 Participants' views on whether session facilitated collaboration

Whether session groups allowed participants to build relationships with other course attendees

Whether session groups facilitated sharing and receiving of support between attendees

■ Agree ■ Neither ■ Disagree

Base: Post survey, All participants (36).

The pilot evaluation had identified greater focus on peer networking as an area of development and reported that the pilot course participants felt that local connections would have been preferable. In view of this, therefore, the delivery partners had organised participants into groups according to regions. However, feedback from participants and delivery partners suggests that there was not enough opportunity for ongoing interaction among participants once the programme was completed. The delivery partner felt that it would have been difficult to achieve unless there was a specific platform for establishing ongoing relationships.

In terms of the composition of groups, although participants were grouped by region, they were not grouped by phase, as the number of participants would have made it difficult to

do both. Some participants appreciated the mix while others would have preferred to be grouped with participants from schools in the same phase. One participant felt that the mix of schools, including both mainstream and special schools, made for interesting discussions, while another felt that discussions would have been more helpful among schools with similar needs.

> I think in some ways it would have been more helpful for the chat groups to be phase-specific because what primaries are doing and what secondaries do is quite different. — *Training participant, secondary, South East*

Participants' views on the content of the course

Participants were satisfied with the content of the course, including what was covered during the sessions as well as the extra information made available through materials provided after each session. One participant reported that they were able to apply their learning from the very first session.

> The first session especially was very, very eye-opening, probably one of the most eye-opening remote trainings I'd been on. – *Training participant, primary, South East*

Overall, participants who completed the post-training survey found most elements of the course useful. All (100%) reported that the session and materials on reviewing AT implemented was useful, while almost all (97%) rated the session and materials about embedding AT knowledge and practice in the school as useful. A slightly lower but still a large proportion of participants (92%) reported that they had found the session and materials on assessing the AT needs of students useful.

In line with survey findings, participants interviewed praised various aspects of the course. The aspects they found most useful were:

- Information they received about available AT resources.
- The inter-session tasks.
- The self-audit tool.
- The additional materials they received after the course as well as resources on the AT Champion website.

These are discussed in more detail in the following sections.

Information on available AT resources

The information provided about what AT was available was particularly useful to participants. Many reported that the session made them aware of AT tools that they did not realise were already available on their computers such as voice-to-text tools. They particularly appreciated gaining this knowledge because it meant that they had free access to AT tools that they could start using immediately.

> Exploring the accessibility tools of things that we already have...So actually, we didn't have to spend money to make text a lot more accessible to students— *Training participant, secondary, South East,*

Other participants appreciated that course leaders pointed them to specific resources that they could use for particular needs their pupils might have, and that a lot of the AT resources they recommended were free.

Inter-session tasks

Participants also appreciated the helpfulness of the inter-session tasks. Many felt that these were thought-provoking and useful for thinking practically about how to apply AT in schools. One participant however felt that these were more useful in the beginning because the latter tasks, which were more focused on impact assessment, required their school to be further along the process of implementing AT.

> The ones further down I felt were slightly less useful but that was probably me personally, because of where we are as a school. There were some things that I was working on slightly differently to where the inter-session tasks were going. — *Training participant, special school, South West*

Self-audit tool

Most mentioned the self-audit tool as a useful element of the course, encouraging them to be open and honest and to identify their next steps as a school. Some appreciated that it was a succinct resource with just 12 questions that helped map out the wider impact of AT on school policies, budgeting and staff training. Many felt that it was the most useful element.

> I find that the [self-audit tool was] most useful and that was probably the most poignant thing to show to senior leaders to say we're working here and ideally I think we should be here and actually for the leaders to recognize in a very succinct way– *Training participant, special school, East Midlands*

The most useful one I would say right from the offset was the audit.
Definitely. — *Training participant, special school, South West*

Participants' positive response to the self-audit tool is in line with the pilot evaluation findings where most participants rated the tool as useful.

Additional materials

Participants appreciated the materials available on the slides that were shared after the sessions. They reported that these contained links to additional useful information. One participant felt that this provided a "best of both" situation, where sessions were not so long that all information could be covered, but that they could access the additional information in their own time.

If you wanted to know more, you can go back [to the slides] and read deeper. There are always embedded links or video links and additional PDFs. I had the depth and richness of [the content] but I wasn't bored to tears about stuff during the sessions. It was touched on but if you want more on this, check this out, so it is more like signposting. It's the best of both worlds really. – *Training participant, primary, South East*

Participants also found the AT Champion website and resource bank useful. A few mentioned using the case study examples, the sample AT policy document, generic proformas and example job descriptions. Some participants reported that they downloaded all the resources they felt would be useful. Others who did not were unsure whether they still had access to these resources.

Delivery partners did report that the resources were taken down from the website and that participants no longer had access to these after the end of the course. They felt that this was a potential area for improvement as they had received "countless requests" from participants wanting to access these resources.

I feel that was an opportunity missed because we had countless requests. I can't remember how many emails [ask] 'Where have the resources gone?', 'What's happened?'— *Delivery partner*

Another area for improvement mentioned by participants was the content on the assessment of AT needs. One participant reported that the information provided in the session did not give them enough knowledge about the topic. Although this was not widely reported by participants, it is interesting to note that in the survey, slightly fewer participants rated this element of the course as useful (92% rating session on assessment useful versus 100% rating session on reviewing AT implemented).

Assessment of AT needs is still currently a weakness in my school. There was a lot of discussion that it has to be child led, but I personally didn't get enough hands-on assessment ideas from that session. I left thinking I didn't actually know much more at the end of the session. – *Training participant, primary, Yorkshire and the Humber*

Overall experience of the course

Overall, most participants had a good experience of the programme. As shown in Table 2.2, out of 36 participants who responded to the post-training survey, 32 (89%) reported that the course had at least met their expectations. A third (33%) felt that it had exceeded their expectations, and tenth (11%) said that it greatly exceeded their expectations.

Table 2.2 Extent to which course met participants' expectations

To what extent did the course meet your expectations?	Responses	Percentage
Greatly exceeded expectations	4	11%
Exceeded expectations	12	33%
Met expectations	16	44%
Fell below expectations	3	8%
Greatly fell below expectations	1	3%
Total	36	100%

Base: Post survey, All participants (36).

In interviews, participants explained that they had got what they wanted out of the course, including increasing their knowledge of what AT is out there and "getting the conversation flowing" in their schools.

It wasn't one of those courses where you come away thinking, oh if only they'd done this. I never thought that at any session– *Training participant, primary, North East*

Suggested improvements to the course

Most participants felt that the course did not need any changes (Figure 2.5). Approaching two-thirds (64%) said that would not suggest any improvements to the course. The improvements suggested by the remaining participants included a suggestion for more detailed or specific information regarding AT (8%) and a call for reduced emphasis on participants sharing their experiences (6%). These improvements were suggested by the 4 participants who reported that the course had fallen below their expectations.

Figure 2.5 Suggested improvements to the course

Category	Percentage
No improvements	64%
More detailed/specific information regarding AT	8%
Reduced emphasis on sharing experiences	6%
Provide ongoing training and support	6%
Looking at case studies/best practice	6%
Training took too long / could have been condensed	3%
Don't know	8%
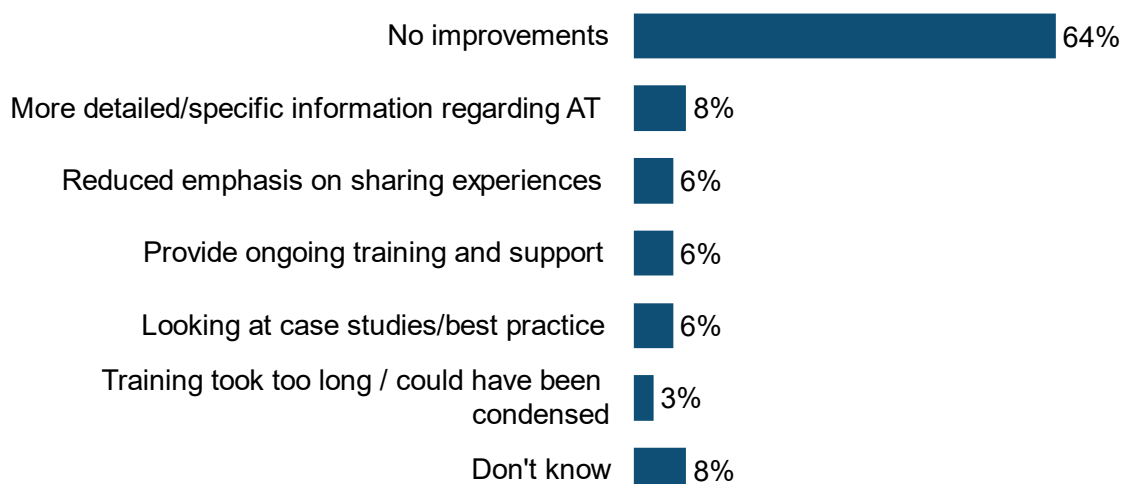
Base: Post survey, All participants (36).

During interviews, participants suggested other improvements. One participant felt that it would have been useful to have two more sessions to allow time to practice what they had learned. Another fed back that the way some of the material was delivered did not take advantage of the range of presentation tools available and would have benefitted from using AI and video to "bring it to life a bit more" rather than presenting static slides.

One participant would have liked more information about what AT resources were available but recognised that the delivery partners could not been seen to endorse any products.

Delivery partners echoed this suggestion, stating that it would have been useful to have the freedom to talk more openly about commercial products, not to endorse them but to enable schools explore their options. The delivery partner could reference tools that were free or low-cost but could not make recommendations about more expensive commercial products as they provide such products themselves.

> That's what they wanted to know. They came to a course to learn AT and then really needed to know where to go look to next. So, we fulfilled the ambition of promoting AT and also thinking about some of the methodologies behind it and the way in which it could be used but then we had to stop talking about the very thing that they really needed to know, which was 'I've got a bit of money, I can go and buy this kit! Where do I go?' And we're saying, 'Can't tell you that on this course, sorry.'— *Delivery partner*

However, this finding might not reflect the views of the majority of participants. As discussed in Chapter 3, most survey participants reported an increase in confidence in sourcing AT relevant to their pupils' needs.

In terms of the effects of changes that were made since the pilot, delivery partners felt that that the spacing between the sessions worked well but that an improvement would be to include coaching and technical support time even past the end of the course. They also felt that while the regional groupings were useful, it would have been better to have a platform through which participants could establish ongoing interactions once the course had ended. A way to continue communications with their cohort peers was mentioned by some participants as well as something they would have liked to have but did not think to organise while on the course.

> I would like to see those that are participate on these kind of very small training cohorts… Build part of a selected group to actually continue those relationships beyond the life of this program and actually have ongoing discussions about what works well with AT and what some of their own barriers and challenges are to try and help them resolve those.
> — *Delivery partner*

Whether participants would recommend the course

Overall, participants felt that the course would be useful to staff in other schools. More than eight-in-ten (83%) of participants who completed the post-training survey said that they would be likely to recommend the course to staff in other schools (Figure 2.6).

Figure 2.6 Likelihood of recommending other staff to take course

11%

6%

83%

■ Likely ■ Neither ▪ Disagree

Base: Post survey, All participants (36).

37
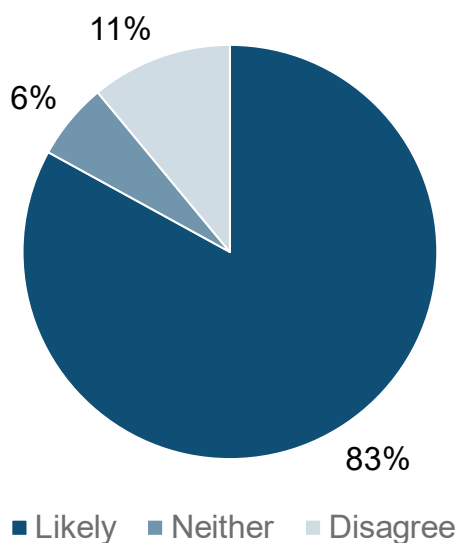
Chapter 3 Outcomes from attending the course

Chapter 3 looks at the outcomes among course participants in terms of awareness, confidence and use of various types of AT. It also delves into the wider impacts that the course has had on the schools' use of AT, as well as any barriers that may disrupt or delay the implementation and use of AT.

Awareness and confidence regarding Assistive Technology

General awareness of different types of AT increased among participants after the course compared to before. Participants were asked about their level of awareness, from not having heard about a type of AT, having heard of it but nothing more, to knowing a little and knowing a lot about it. Those who said they know at least a little about each type of AT are represented in Figure 3.1.

Figure 3.1 Knowledge about different types of AT before and after the course
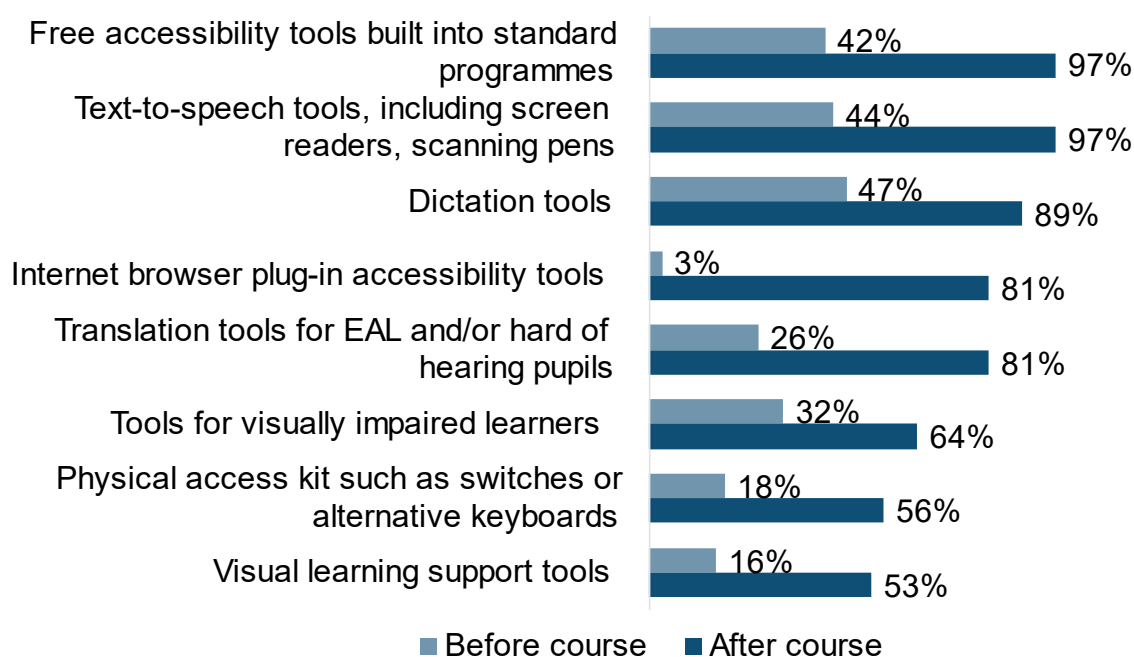
Base: Pre and post survey, All Participants: Pre-survey (117), Post-survey (36)

Before the course, the types of AT most known by the participants were dictation tools (47% of respondents knowing at least a little bit about it and how it is used), text-to-speech tools (44%), free accessibility tools built into standard programmes like Windows Immersive Reader (42%), and tools for visually impaired learners (32%). Other tools prompted were known by very few people.

In the post-training survey, a majority of respondents were aware of each type of AT prompted, with free accessibility tools and text-to-speech tools still ranking highest,

(known by 97% of respondents), followed by dictation tools (89%). The biggest increase was in knowledge about internet browser plug-in accessibility tools, which only 3% of respondents were familiar with before the training, and 81% of respondents were familiar with after the training.

All the participants who completed both surveys had increased the number of types of AT they said they know at least a little bit about. They knew about an average of 6 out of 8 types of AT in the post-survey, compared to only 2 out of 8 in the pre-survey. In terms of types of AT they knew a lot about, before the course, only 2 participants (6%) said they knew a lot about visual learning support tools and dictation tools, and only one participant (3%) knew a lot about text-to-speech tools. There were no other types of AT which participants reported knowing a lot about before the course. After the course, however, as shown in Figure 3.2, some participants knew a lot about each type of AT. Most participants knew a lot about free accessibility tools (61%), almost half knew a lot about text-to-speech tools (45%) and two in five knew a lot about dictation tools (39%).

Figure 3.2 Proportion of participants to both surveys who knew a lot about each type of AT
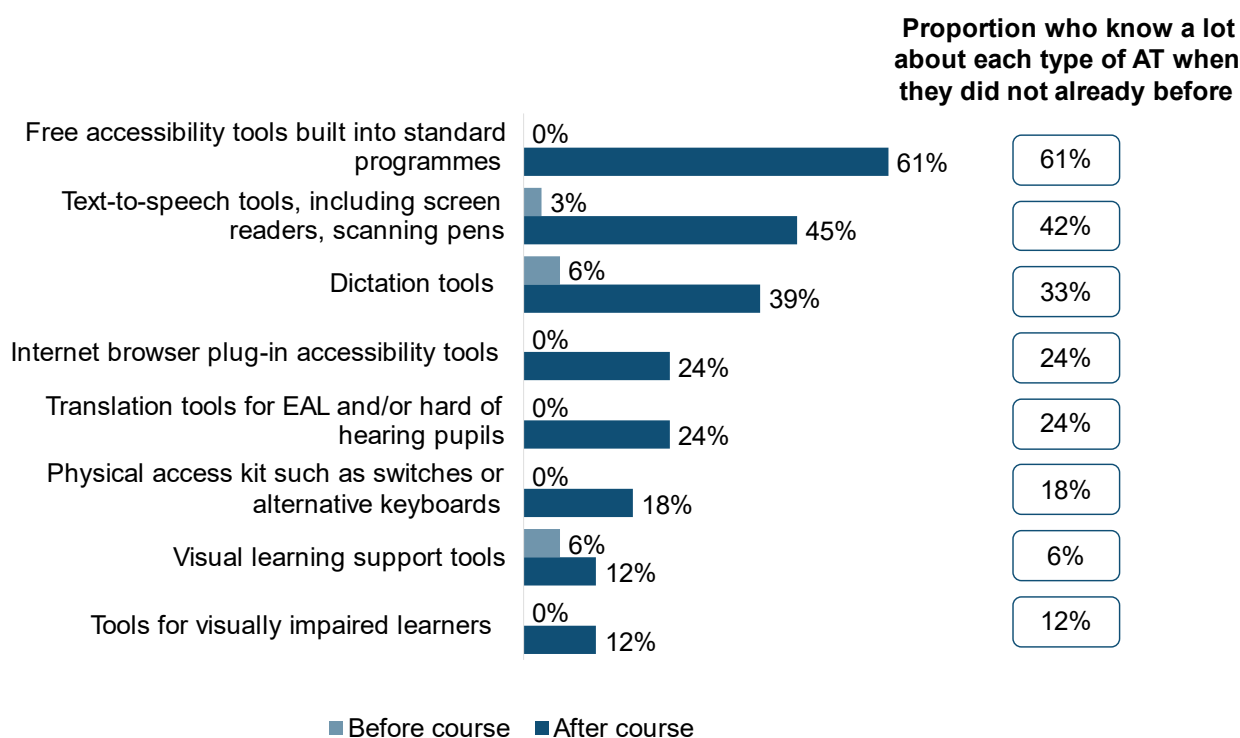
Base: Pre and post survey, Participants who completed both surveys (33)

Among those who completed both surveys, the proportion who registered an increase in the level of awareness for each type of AT is shown in Table 3.1. These participants moved at least one step on the scale of the question, for example from knowing nothing about AT before the course to knowing at least a bit or from knowing a bit about AT to knowing a lot.

Table 3.1 Percentage of participants who know more about each type of AT after the course compared to before (ranked)

Types of AT	Responses	Percentage
Internet browser plug-in accessibility tools e.g. Helperbird	30	91%
Free accessibility tools built into standard pro-grammes/ devices e.g. Windows Immersive Reader	28	85%
Translation tools for EAL and/or hard of hearing pupils	28	85%
Text-to-speech tools, including screen readers and scanning pens	27	82%
Physical access kit such as switches or alternative keyboards	23	70%
Dictation tools (whether paid-for or free)	22	67%
Tools for visually impaired learners e.g. Braille devices, magnifiers and software/apps to enlarge	21	64%
Visual learning support tools, e.g. mind-mapping software	18	55%

Base: Pre and post survey, Participants who completed both surveys (33)

This aligned well with what participants most wanted to get out of the training, which was to find out what type of AT is available and learn how to access it, as well as to get some recommendations to help them navigate the wide breadth of technology and programmes available.

> A better understanding of what tech is out there and ideas of how we could incorporate it into what we're already doing, with that emphasis on boosting student independence. - *Training participant, secondary, South East*

In terms of confidence with different aspects of AT, before the training, less than one-in-five participants were confident in being able to identify, use, and assess the effectiveness of assistive technology, as illustrated in Figure 3.3.

Figure 3.3 Confidence around different aspects of using AT
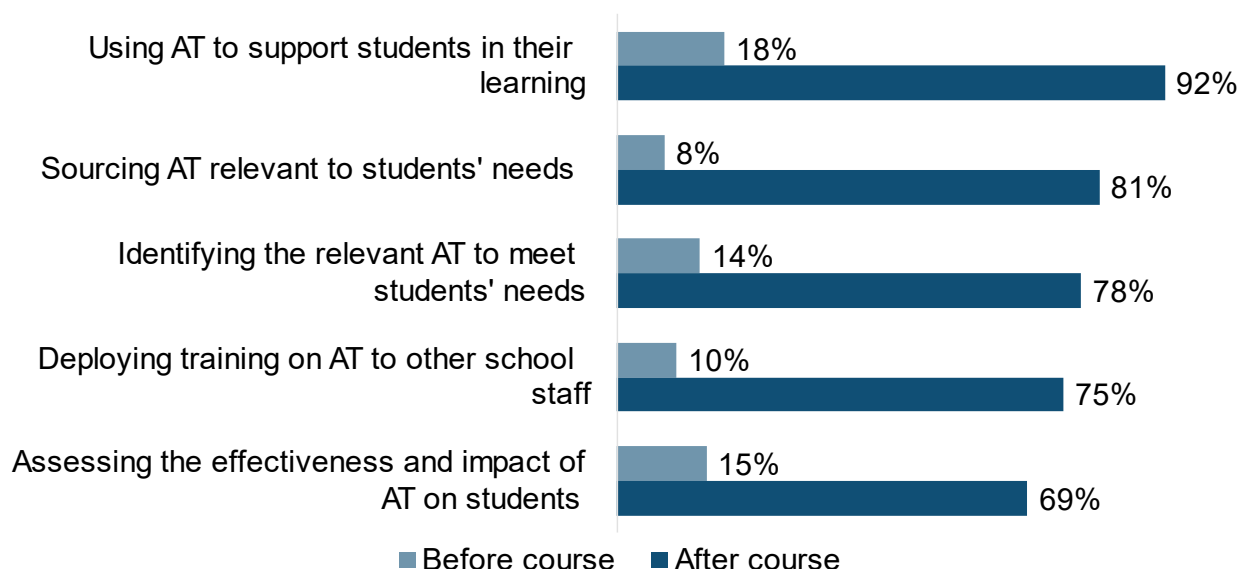
Base: Pre and post survey All Participants: Pre-survey (117), Post-survey (36)

After the training, at least seven-in-ten were confident in all prompted aspects of using AT. Almost all respondents (92%) were confident in using AT to support pupils in their learning, 81% were confident in sourcing relevant AT for their students' needs, and 78% were confident in their ability to identify the relevant AT for their students. The biggest increase in confidence was in sourcing AT (8% before, 81% after) and using AT (18% before, 92% after). However, the low base size in the post-survey (36) should be noted.

Among those who responded to both surveys, the vast majority recorded an increase in confidence for each aspect of engaging with AT, as shown in Table 3.2, with almost everyone increasing their confidence in their ability to source AT relevant to their students' needs.

Table 3.2 Percentage of schools that reported increased confidence after the course compared to before (ranked)

Activities in relation to which confidence levels were asked about	Responses	Percent of Cases
Sourcing assistive technology relevant to pupils' needs	32	97%
Using assistive technology to support pupils in their learning	31	94%
Assessing the effectiveness and impact of assistive technology used to support pupils	29	88%
Deploying training on assistive technology to other school staff	29	88%
Identifying the relevant assistive technology to meet pupils' needs	28	85%

Base: Pre and post survey, Participants who completed both surveys (33)

From the qualitative interviews, participants mentioned that their biggest improvement, and the one that led to most change in their school, was their confidence around being able to identify and suggest potentially useful types of AT for their students. In some cases, this was after the course participants developed the confidence to work in partnership with the school's IT department on where and how to source different types of AT.

> I feel much more confident using assistive tech with the students now. – *Training participant, secondary, South East*

In some cases, the participants' role had changed after the course, to focus more on AT. One respondent mentioned that within their school, their teaching hours were reduced in favour of them spending more time prioritising technology development within the school, and in addition to that they are now also working with the "virtual school" programme, attended by children in care, with healthcare plans, and other vulnerable children across the country - to see how they can use AT to support these students. The virtual school works alongside the pupils' regular school to help them maintain or even improve attainment when their health means they are unable to attend school regularly.

Where some more specialised schools already had experience of using AT for some of their students, the course helped them expand their knowledge of more easily accessible, free or more affordable types of AT that can be implemented more broadly compared to the highly specialised, expensive AT they were already using.

> It helped me on my journey. I'm more confident with AT now but I know I'm not quite there yet. One of the biggest things I took away was that you don't have to buy new fancy machines - we just need to better utilise tools within resources the school already. – *Training participant, primary, Yorkshire and Humber*

> The course made me understand what Assistive Technology was. So, in my head I thought it was all of this amazing, fantastic technology that was far beyond what we could get but it made me realise that more accessible things like visuals, basic uses of computer tech, etc. is also incorporated in that. So that was useful. – *Training participant, special school, South West*

> I knew nothing about AT to start with or how it could be used in a classroom setting. We didn't do any of this [using AT] before the course, the support that children got was all adult-led before and very labour-intensive. – *Training participant, primary, South East*

The increase in confidence in suggesting and implementing AT for students in the school was noticed by the other school staff in the schools where case studies were conducted.

Furthermore, other teachers noticed an increase in confidence around AT in themselves as well, as a result of the support and knowledge sharing they got from the course participants. However, most emphasised that they considered themselves to still be at the beginning of their journey and expected to continue to get more confident in using AT in the future.

> My knowledge and awareness of that is developing and growing in confidence. A lot of this developed this academic year [after the training].
> – *Teacher, special school, South West*

Use of Assistive Technology in schools

As illustrated in Figure 3.4 there was also a noticeable increase in the use of AT in schools after the course compared to before. The most commonly used types of AT after the course were free accessibility tools (94%), text-to-speech tools (83%), translation tools (74%) and dictation tools (72%). This remains consistent when looking at just the participants who completed both surveys, to account for any participation biases, as shown in Figure 3.5. It should be noted that these are the types of AT that support the most common needs in mainstream schools.

Most participants who answered both surveys (91%, i.e. 30 out of 33) used more types of AT in their schools after the course than they did before. This increased from an average of 2 types of AT being used before, to 4 types of AT being used after.

Figure 3.4 Types of AT used in schools before and after the course

Free accessibility tools built into standard programmes — 42% / 94%
Text-to-speech tools, including screen readers, scanning pens — 44% / 83%
Translation tools for EAL and/or hard of hearing pupils — 41% / 74%
Dictation tools — 38% / 72%
Tools for visually impaired learners — 23% / 37%
Internet browser plug-in accessibility tools — 0% / 27%
Physical access kit such as switches or alternative keyboards — 17% / 27%
Visual learning support tools — 13% / 21%

■ Before course ■ After course

Base: Pre and post survey, Participants who had heard of each accessibility tool: Pre-survey (range 117 to 31), Post-survey (range 36 to 33)

Figure 3.5 Types of AT used in schools before and after the course, among those who completed both surveys

Type of AT	Before course	After course
Free accessibility tools built into standard programmes	33%	94%
Text-to-speech tools, including screen readers, scanning pens	42%	82%
Translation tools for EAL and/or hard of hearing pupils	**	77%
Dictation tools	39%	73%
Tools for visually impaired learners	10%	39%
Physical access kit such as switches or alternative keyboards	23%	28%
Internet browser plug-in accessibility tools	**	26%
Visual learning support tools	**	19%

Base: Pre and post survey, Participants who completed both surveys and had heard of each accessibility tool (range from 33 to 7). ** represents suppressed data where the base size was below 30[4]

In the qualitative interviews, the types of AT mentioned by the schools as having been implemented since the course mostly included both free and paid for apps that help with reading, writing and maths exercises, laptops which allow students to type instead of write to help them in classes that are not specifically focussed on developing writing skills, dictation tools, and reading aloud apps or reading pens.

> Reading pens have been amazing. We've got quite a few students across the school now using Reading Pens and as they are part of our normal way of working it doesn't affect their access arrangements and more students are able to use them rather than somebody reading for them. – *Training participant, special school, South West*

---

[4] For this question participants were able to select between the types of AT that they indicated they had heard about, leading to the difference in base sizes between the pre and post survey despite the post survey having had fewer completed overall.

> I would say the biggest thing we pushed has been the speech to text software. We're using that regularly with three students with high level needs now and there are others that we will push it out to, but I need to get more TAs confident with it and more teachers confident with managing it in the classroom. – *Training participant, secondary, South East*

For example, in one of the case study primary schools, some examples of the AT being used included software like Seesaw (uses QR codes to read stories aloud or access class discussion on a subject), Doodle (for maths and English exercises), Notes on iPad (speech to text app), Widget Online (helps communication through pictures), iPads with proloquo2go (an Augmentative and Alternative Communication NHS app, applied for through their Speech & Language therapist). In addition, translation apps were used sometimes to help communication with parents whose first language was not English.

> Reception and Year 1s have mainly seen the benefits of using Widgit, particularly Reception when using it out in provision. It enables the children to be more independent. – *Teacher, primary, North West*

> Students record their speech into their iPad Notes app, it gets written as text then we can print it off and put it in their book so they can read it and rewrite parts of it. Children held back by various things, such as stamina, motor skills etc. they can get all their ideas down and actually see themselves writing. – *Teacher, primary, North Wes*t

> The number of children needing to use Assistive Technology is increasing each year, so we've had to change our approach to meet the needs of the children. – *School leader, primary, North West*

Before going on the course only a small percentage of participants thought their school used AT well to support their students, but this increased to more than half after the course. Most participants considered that their school was using AT well particularly to help their SEND students (86%), an increase from 21% before the course (Figure 3.6). The same pattern was found among participants who completed both the pre- and post-course surveys.

Figure.3.6 How well schools use AT for different types of students after the course

NET: Well

	Before	After
EAL students	10%	50%
SEND students	21%	86%
Other types of students	13%	58%

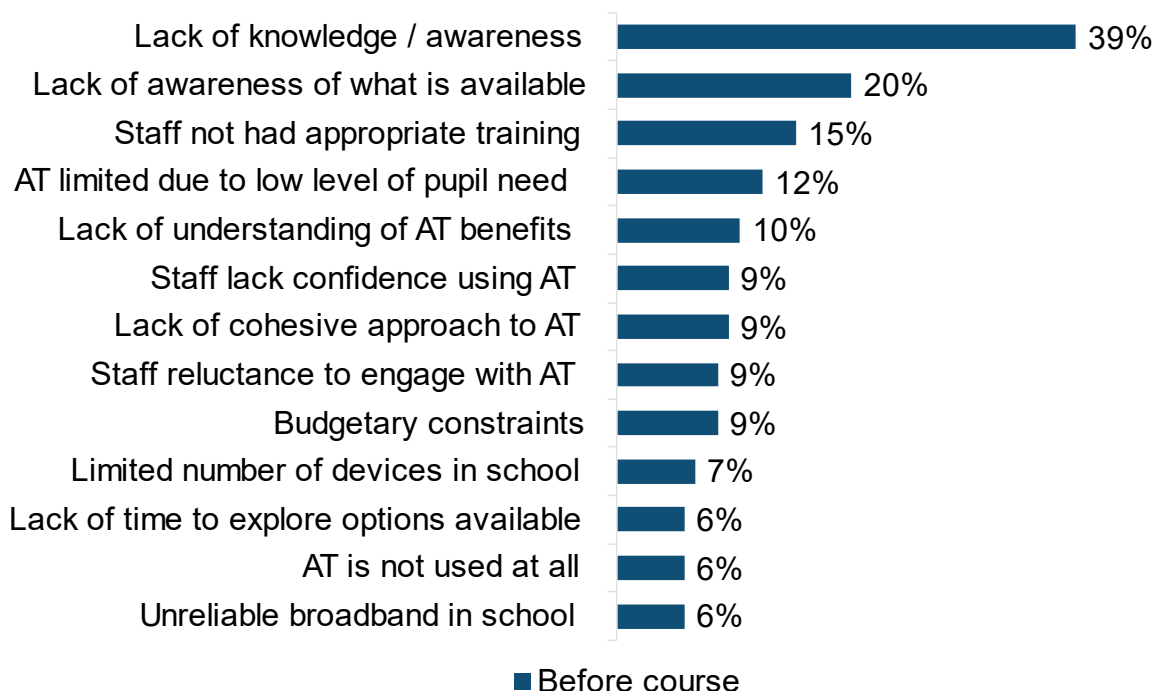Legend: Not at all well ■ Not very well ■ Quite well ■ Extremely well ■ Don't know or not applicable ■
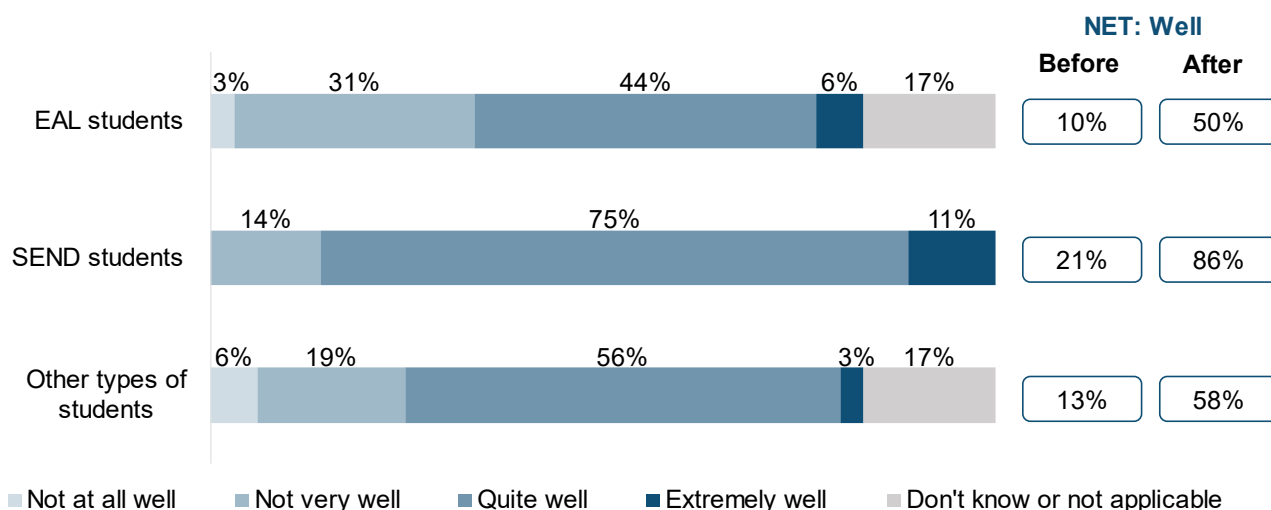
Base: Pre and post survey, All Participants: Pre-survey (117), Post-survey (36)

When looking deeper into this, all schools from the qualitative strand said they had increased the number of students that AT is used for, in many cases simply by better using the tools that they already had available to them via the laptops or interactive white-boards already available in schools. Some schools widened their implementation of AT from just SEND students with specific requirements in their plan to other students who may have struggled with attainment or were otherwise identified as possibly benefitting from AT. In some cases where specific maths, reading and writing software was introduced, it was introduced across the classroom, benefiting all students. AT was also being incorporated more in lesson plans by teachers, rather than just for specific students.

Some schools were looking deeper into allowing or introducing the use of AT outside of class time but progress on this was gradual. Devices were generally kept in the classrooms at all times in order to protect them from accidental breaks or from being lost. The only exceptions tended to be special schools, particularly when some students had their own assigned tablets for communication purposes.

No participants thought that AT was being used to its full potential in their school before the course. The vast majority (91%) disagreed with that statement, while 9% neither agreed nor disagreed. The reasons why AT was not considered to be used to its full potential before the course were mostly due to lack of knowledge about AT in general (39%), lack of understanding of what is available (20%), and staff lacking the training to engage with it (15%), as shown in Figure3.7.

Figure3.7 Reasons why AT was not used to full potential in schools before the course

Reason	Before course
Lack of knowledge / awareness	39%
Lack of awareness of what is available	20%
Staff not had appropriate training	15%
AT limited due to low level of pupil need	12%
Lack of understanding of AT benefits	10%
Staff lack confidence using AT	9%
Lack of cohesive approach to AT	9%
Staff reluctance to engage with AT	9%
Budgetary constraints	9%
Limited number of devices in school	7%
Lack of time to explore options available	6%
AT is not used at all	6%
Unreliable broadband in school	6%

■ Before course

Base: Pre survey, Participants who disagreed that their school was using AT to its full potential (106)

The course had a positive impact on participants' views about how well AT was being used in their school. After the course, only 44% disagreed that their school used AT to its full potential, while 39% neither agreed nor disagreed, and 17% agreed that they were using AT to its full potential in their school. In addition, about 9 in 10 (89%) agreed that their school was making positive changes towards using AT to its full potential, with a quarter (25%) saying they agreed strongly.

This was corroborated by the qualitative findings. Schools were still in a transition period, where they were improving their use of AT both in terms of how well it is used, and in terms of who it is used for, where and when. This was described as a long process, which they were still in the early stages of, but they felt much better equipped to take on the challenges than they were before the course.

> Everything was useful, but I just had to make sure that it was useful at the right time. Some of the learnings we've not had a chance to implement yet but I'm sure they will prove very helpful once we get to that stage. – *Training participant, special School, South West*

A few participants mentioned how important the self-audit tool from the training was in helping them on this journey. It supported their school to realise what they were already doing well and where they most needed to focus on improving. Everyone who mentioned

this tool said they continued to use it periodically to assess progress and gauge their next steps.

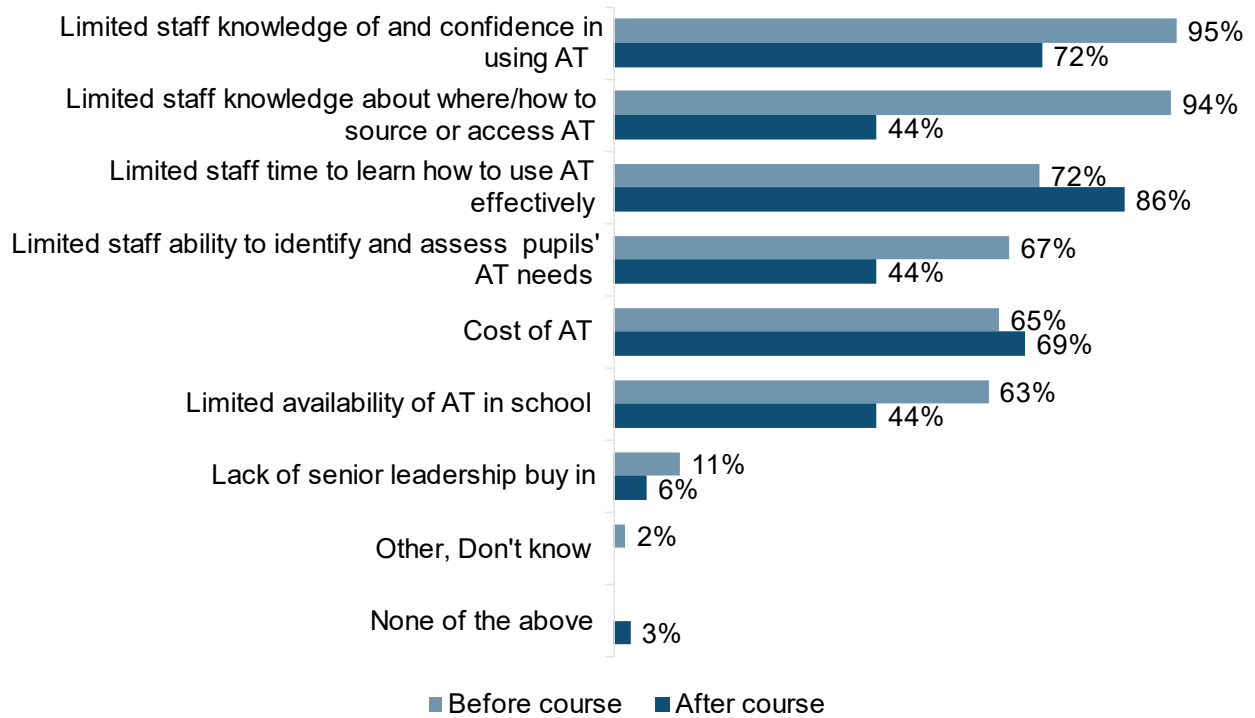# Barriers to using Assistive Technology

As indicated by Figure 3.88, the main barriers to the effective use of AT in schools before the course were limited staff knowledge and confidence around using AT (95%), sourcing AT (94%), and limited time to learn how to use it (72%). After the course, the limited time staff had to learn how to use AT effectively (86%) became the most prominent barrier and had increased compared with the pre-survey. While limited staff knowledge and confidence in using AT (72%) remained a barrier, this can be expected to reduce the more time AT champions have to share their learning from the course further, and the more school staff get to use AT. However, the cost of some AT continues to be a barrier for schools (65% before the course, 69% after).

The biggest decrease in the prevalence of any specific barrier was for limited knowledge about sourcing AT. This decreased from 94% of schools before the course to only 44% of schools after the course. This is the barrier on which the course had the most direct impact, as usually the course participant was the one responsible, at least in part, for sourcing AT in their school.

In the qualitative interviews, schools mentioned that they expected their barriers related to limited knowledge or limited confidence around AT to continue to reduce further as time and their experience with using AT progressed. A couple of participants mentioned that they wanted to attend further training to help build their confidence, while the rest of the participants in the qualitative interviews believed they could continue to grow their confidence and knowledge through their own research, applying the tools they gained during the Test and Learn course.

Sometimes this process was slowed down by the availability of the school's IT team (especially if this was outsourced and limited to one or two days per week), sometimes by the prioritisation of other teaching responsibilities, and other times by budgetary constraints.

Figure 3.8 Barriers to effective use of assistive technology in schools

Limited staff knowledge of and confidence in using AT
- 95%
- 72%

Limited staff knowledge about where/how to source or access AT
- 94%
- 44%

Limited staff time to learn how to use AT effectively
- 72%
- 86%

Limited staff ability to identify and assess pupils' AT needs
- 67%
- 44%

Cost of AT
- 65%
- 69%

Limited availability of AT in school
- 63%
- 44%

Lack of senior leadership buy in
- 11%
- 6%

Other, Don't know
- 2%

None of the above
- 3%

■ Before course   ■ After course

Base: Pre and post survey, All Participants: Pre-survey (117), Post-survey (36)

Chapter 4 Knowledge sharing and a whole-school approach

This chapter explores how participants have shared their knowledge from the AT course with their colleagues, students and other professionals. It will look at the perceived changes in the knowledge of AT among colleagues, assess the extent to which participants are developing a whole-school approach to AT to create an inclusive environment where technology reduces barriers to learning and empowers all students, and looks at future plans for the use of AT in schools.

Sharing of knowledge from the AT course

The AT training was designed to be shared further and the knowledge gathered cascaded and embedded in the rest of the school. Following the course, almost three quarters (72%) of respondents said they had already started to share the knowledge and practice they gained with their colleagues, with the other 28% saying they had not started yet but had plans in place to do so.

Similar findings were seen in the qualitative interviews, with training participants most commonly indicating that they had shared their knowledge or planned to through a meeting, presentation or one-to-one training with other teaching and support staff in the school.

> At our INSET day, I presented for a couple of hours to the whole teaching staff body including Learning Support Assistants (LSAs), and we trialled some new technologies including some of the AT covered in the course. – *Training participant, primary, South East*

One case study school said they have shared their knowledge in small groups or on a one-to-one basis based on needs brought forward by teachers or TAs. They reported having plans in place for two big sessions for disseminating information, as part of their two days of knowledge and best practice sharing "fest". They are also planning to share information and guidance with other mainstream schools in the area.

A few participants said they were looking to appoint an AT Champion at the school who can take ownership of AT in the school and train the other TAs.

> The idea would be to get all of the TAs together and get them into one group and teach them all, and then have, one or two more motivated TAs taking on the responsibility to manage it. – *Training participant, secondary, South East*

In terms of sharing knowledge with other professionals, one participant mentioned that they had delivered a presentation on key learnings from the course to a 'family SENCo' meeting which involved SENCos from 6-8 neighbouring primary schools.

> I've already recommended this to other SENCos. I told them you must go on it, it's an eye opener – you don't realise what's out there and what can support the children. – *Training participant, primary, East Midlands*

There was a vast increase seen in the confidence levels of training participants in explaining the potential benefits of AT to colleagues. In the pre-survey, less than a third (31%) of participants felt confident in explaining the benefits of AT to colleagues. Whereas, following the course, almost all (94%) of respondents felt confident, with 31% saying they felt very confident, as shown in Figure 4.1.

Figure 4.1 Confidence in explaining the potential benefits of AT to colleagues
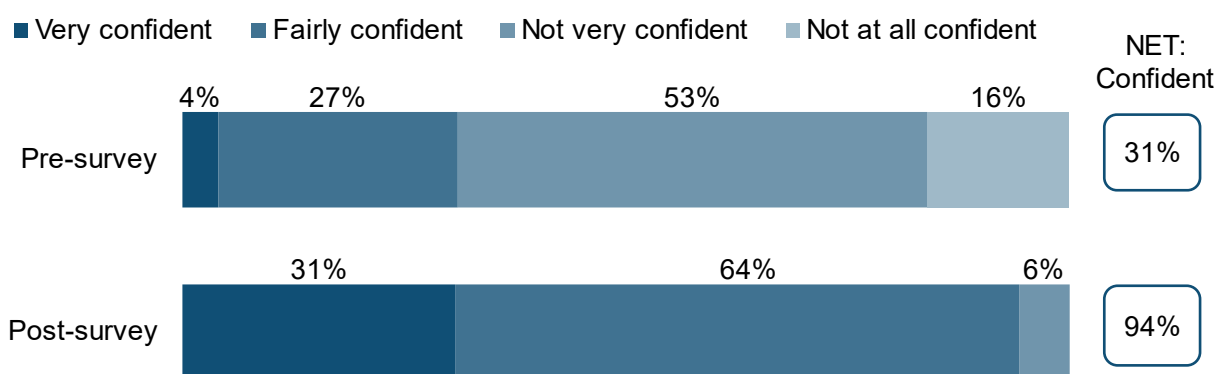
Base: Pre and post survey, All Participants: Pre-survey (117), Post-survey (36)

The majority of participants (82%) who completed both the pre and post survey felt that their confidence in explaining the benefits of AT to their colleagues had increased, with almost all (88%) indicating that they felt confident deploying training on assistive technology to other school staff.

In the qualitative interviews, all training participants felt their confidence in using AT in their school had improved.

> I feel much more confident using assistive technology with the students now. – *Training participant, secondary, South East*

I did know a bit about AT before through being a SENCo when looking for things to help pupils across the school, but the course has improved my knowledge of what's available. — *Training participant, secondary, North East*

Perceived change in knowledge of assistive technology among colleagues

Before the course, very few participants thought, on average, their colleagues had some, but not all of the knowledge they needed about using AT with pupils (9%) compared to almost two-fifths (39%) of participants after the course, as shown in Figure 4.2.

Figure 4.2 Perceived change in knowledge of AT in colleagues
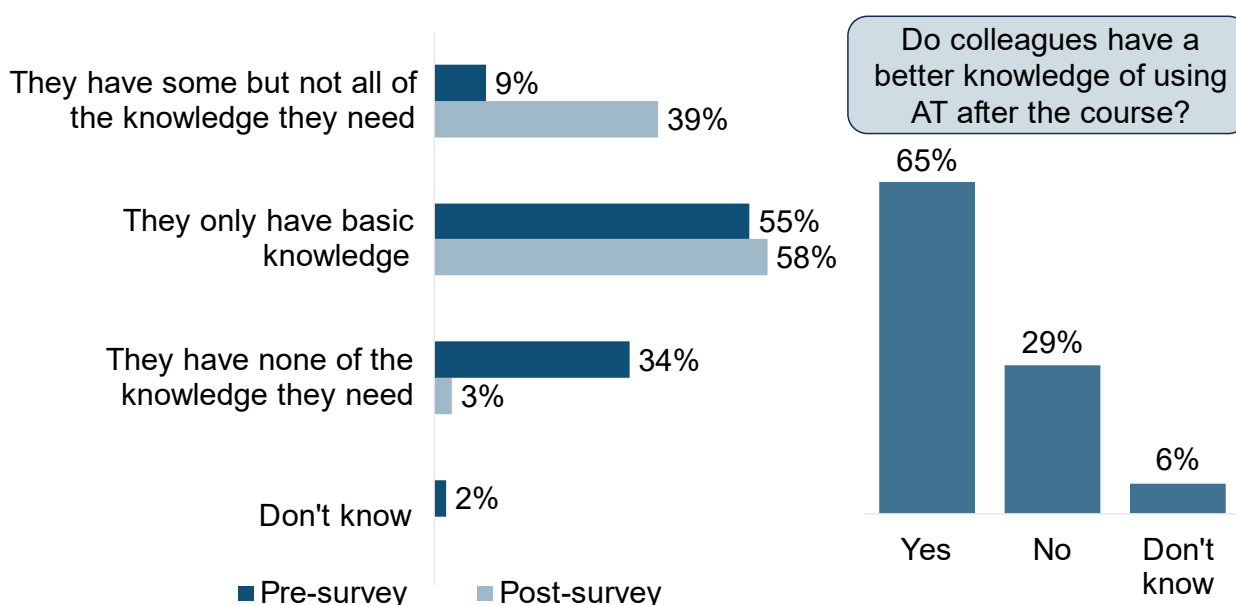
Base: Pre and post survey, Left: All Participants: Pre-survey (117), Post-survey (36); Right: Participants who completed both surveys (33)

The majority of participants who completed both the pre- and post-surveys said their colleagues had a better knowledge of using AT after the course (65% vs. 29% who said no).

This was supported in the qualitative interviews, especially among those who had been able to share their knowledge, with the majority of training participants who did not feel that their colleagues had the knowledge they needed before the course indicating that they felt their colleagues had a better understanding of AT after the course. In one case study, where the training participant had shared their knowledge with TAs, AT had been embedded into their learning plans and they were using 'Notes speech to text' on the iPad with students during a visit to the school.

The teaching assistants that have used it so far have been successful
with it and are quite confident. – School *leader, primary, North West*

There were some differences seen in the levels of knowledge participants felt their colleagues had, with longstanding teachers not as knowledgeable as newly qualified teachers:

We looked at different types of assistive technology in my PGCE course,
so I was already familiar with a lot of the knowledge shared. – *Teacher,
primary, North West*

Whole-school approach to assistive technology

The survey found that the majority of training participants (64%) felt that their school was making positive changes towards using assistive technology to its full potential after the course.

This was echoed in the qualitative findings. Most schools had, or were intending to, write AT into their school policies, for example, their digital strategy, and include AT in their learning plans. One school had rolled out Clicker 8 to the whole school and Immersive Reader to the whole of Key Stage 2. Another was using Widgit symbols to support pupils with reading or language difficulties as part of a whole-school approach to improving communication.

The children don't know any different as they all use it – the ones who
really need it don't feel singled out while others benefit from it as well,
and it helps with transitions between year groups because it's used all
the way through school. – *Teacher, primary, South East*

One training participant described how the results of the audit at the start of the course made it look like their school was not very far along with AT. However, once they understood what AT was, it did not take them long to adapt school policies and practices to include AT, such as adding the use of AT to job descriptions and staff performance reviews.

AT is very much built into our universal offer. We are very strong on
adaptive teaching and we do what is needed to help children access the
curriculum and keeping up and assistive technology is part of that toolkit.
– *School leader, primary, North East*

Questions about the use of AT are now being recorded during performance management processes and how AT is used is being captured in lesson planning rather than just in documents about the specific child who needs the AT. It's a slow process but it's going in the right direction. – *Training participant, Special school, East Midlands*

AT is being written into school policy, and it is being shared with parents in annual review meetings for children with AT. – *Training participant, primary, North East*

The majority of training participants found the course resources really useful in terms of building whole school buy-in, particularly the self-assessment tools.

One school had used AT software to support their Year 4 children with a core government maths assessment and had expanded this to the whole maths curriculum.

We need to do a multiplication check in Year 4 and through AT we managed to get a student from scoring 2 out of 25 to 25 out of 25 within a year. We introduced AT software to help them practice times tables, with instant feedback, incentives/rewards to build self-esteem. – *School leader, primary, South East*

Future plans for assistive technology in schools

Course participants interviewed in the qualitative research said they were planning more training sessions with staff. One participant was planning to broaden the scope of training and knowledge sharing sessions with staff in their school, as well as staff from other schools, to focus on technology that can be used across the school or across a classroom, not just on an individual basis. They were also planning a larger scale whole-school policy and subsequent practice update later in the year.

The majority of participants (83%) said they would be likely, including 58% who were very likely, to recommend that other mainstream school staff undertake training in AT.

Chapter 5 Wider outcomes of using assistive technology for staff and students

This chapter looks at how using AT overall has impacted on teachers, support staff, pupils and their families.

Outcomes for teachers and support staff

The majority of participants indicated that the use of AT in schools has had a positive impact on various aspects, with the most common impact cited being the behaviour and engagement of SEND and EAL pupils (86% and 67% respectively). Over two-thirds (67%) of participants felt AT has had a positive impact on support staff time, and almost half (47%) indicated that using assistive technology has had a positive impact on the use of teacher time, as shown in Figure 5.

Figure 5.1 How using AT has impacted on various aspects in school
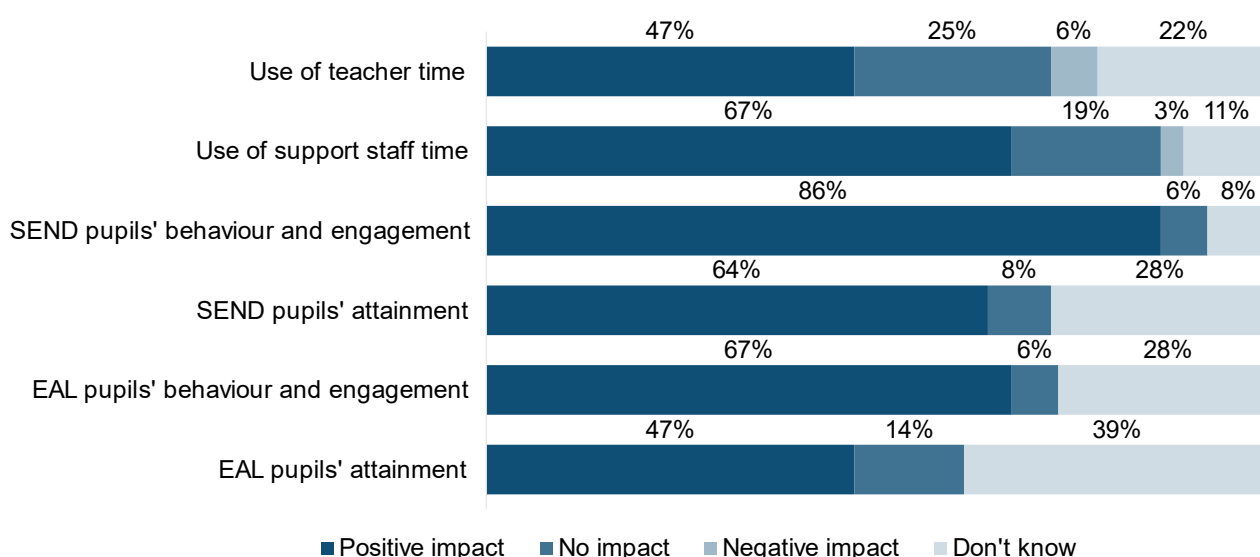
Base: Post-survey, All Participants (36)

In the qualitative interviews and case studies, the impact on the use of AT on teacher and support staff time depended on the type of AT used. For example, if a teacher or TA wanted to use software to let students do exercises independently, then they needed to set it up, it became another task for teachers to do, but if the student was using a scanning pen that renders text and image content as speech, then this was time saving, as they could do it independently.

Reading Pens have been amazing. We've got quite a few students across the school now using Reading Pens and as they are part of our normal way of working, it doesn't affect their access arrangements and more students are able to use them rather than somebody reading for them. – *Teacher, special school, South West*

One participant felt that overall AT reduced teacher workload, as they did not have to plan different activities to engage different types of pupils. However, they also indicated that their colleagues' perception after Clicker 8 training was still that it could increase workload (because it needed a level of preparation that potentially outweighed the benefits) for teachers, so take-up had not been as good as they had hoped.

Other training participants described how the use of tools that provided instant feedback to pupils saved a lot of teacher time and benefited the whole class rather than specific groups.

Teachers and TAs felt that AT simplified many tasks and allowed mainstream staff to spend their time helping more students across the class, than reading or scribing to a few.

The teacher would have previously gone around reading to each individual student and she had 4 of them on her class at different levels. She is now able to spend her time assisting more students rather than reading for the few pupils. – *Training participant, special school, South West*

Teachers interviewed during the case studies reported that there was a lot less disruption in the classroom, which helped to foster a positive learning environment.

It helps the children to focus on the task, because the task is more accessible for them. This means there is less low-level disruption in class and makes the class a more positive environment. – *Teacher, primary, East Midlands*

I think it helps us form the point of view of giving a greater opportunity for our pupils to communicate in whichever way suits them and therefore for us to be able to help them academically and emotionally. It's easier for us to react to their needs if we can better understand what they are, and it overall makes for a calmer classroom environment, more conducive to learning. –*Teacher, special school, South West*

Teachers and TAs acknowledged that in the short-term it could take time for staff and children alike to learn how to use the technology. In one case study school there were some concerns that classroom TAs were still staying with the children who were using AT
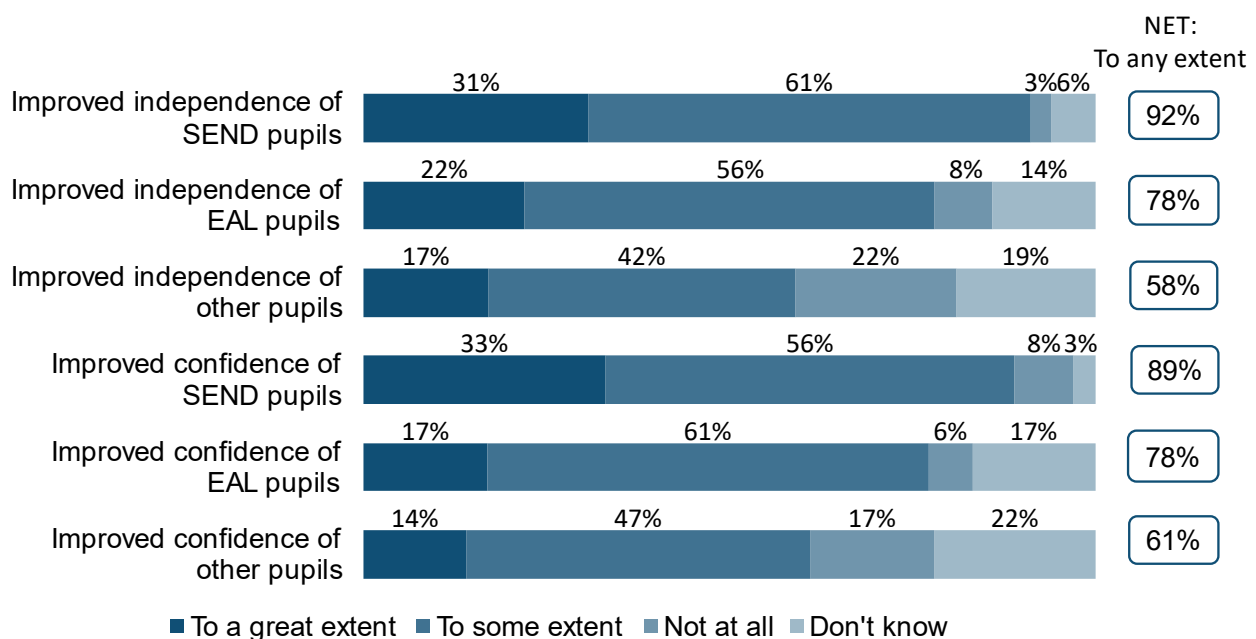
because they were worried that, if they stepped away, there could be a technical issue with the AT, or the child might accidentally delete their work. In another case study school, AT was introduced to pupils from Year 4 onwards and staff reflected that introducing it with younger children would have been more difficult and time-consuming, because many younger pupils had not yet developed the basic IT skills needed to use the assistive technology.

Outcomes for pupils

Following the AT training course, participants reported significant improvements in the independence (92% and 78%) and confidence (89% and 78%) of SEND and EAL pupils respectively.

Around six-in-ten (61%) also reported improved confidence and over half (58%) reported improved independence levels in other pupils, as shown in Figure 5.

Figure 5.2 The impact AT training has had on the independence and confidence levels of pupils

NET: To any extent

	To a great extent	To some extent	Not at all	Don't know	NET
Improved independence of SEND pupils	31%	61%	3%	6%	92%
Improved independence of EAL pupils	22%	56%	8%	14%	78%
Improved independence of other pupils	17%	42%	22%	19%	58%
Improved confidence of SEND pupils	33%	56%	8%	3%	89%
Improved confidence of EAL pupils	17%	61%	6%	17%	78%
Improved confidence of other pupils	14%	47%	17%	22%	61%

■ To a great extent ■ To some extent ■ Not at all ■ Don't know

Base: Post-survey, All Participants (36)

Additionally, as included in Figure 5, the use of AT had positive impacts on the behaviour and engagement of SEND pupils (86%) and EAL pupils (67%) in a majority of participating schools. It also had a positive impact on the levels of attainment of SEND pupils (64%) and EAL pupils (47%).

This was apparent in the qualitative interviews and case studies, where AT was seen to have many positive impacts on pupils, particularly with reading and writing, which increased their confidence and independence:

> We've seen huge changes to their esteem and confidence. It's increased their vocabulary and it's really helped to plug some reading gaps, especially after COVID. – *School leader, primary, North West*

> One particular pupil, he had low confidence because his writing just didn't match with what he was trying to say. It was like a lightbulb moment for him, that his writing was a on a par with his peers. It opens a different world for them that they are producing work in line with what their peers are doing. - *Teacher, primary, East Midlands*

> Reading and talking with an iPad rather than a teacher empowers children to read aloud with more confidence. – *Training participant, primary, South East*

In some cases, AT allowed students to access a wider curriculum, as well as qualifications which they otherwise would have been unable to obtain.

> We now have students accessing entry-level and functional skills, who couldn't access that without assistive technology, so they are actually coming out with qualifications that they may not have been able to come out with previously. – *Training participant, special school, South West*

> I use it [speech to text] with one SEN/EAL child in Year 1. He's gone from no mark making at all to a page of writing using the iPad since the start of the year. – *Teaching Assistant, primary, North West*

The interviews with pupils supported these findings, and all the pupils interviewed felt more confident using AT such as Immersive Reader, reading pens and speech to text to support their reading and writing. In some cases, it led to students reading more stories and sometimes even whole books, and allowing their creativity to shine by dictating compositions which they would have otherwise struggled to write.

> I really like using it [speech to text]. It makes me feel confident. – *Pupil, primary school, North West*

> They're really useful. After [using the one at school], I got one at home. I use it for homework and in restaurants, to read the menu. – *Pupil, special school, South West*

It's helpful. When you get given a big book, what do you do with it? I use the [reading] pen. I read The Hobbit like that." - *Pupil, special school, South West*

Pupils also echoed how liberating it was to not have to wait for the teaching assistant or teacher to help them read the text. It allowed them to focus their attention more in class, to get more done and to be more independent.

[Classes] are more interesting now. Because you're not there just waiting for the teacher to come help you for five minutes, while she walks around and doesn't listen to you. This happened on a few occasions when we didn't have the reading pens. - *Pupil, special school, South West*

Pupils in two of the case study schools, who spoke English as an Additional Language, both said they no longer needed to use the AT as their English had improved, but that it had been really helpful to them when they first started at the school and their English was more limited. Views from other children interviewed, who had various SEN including autism and global delay, were that they enjoyed using AT and found it useful.

It boosts my confidence in English and puts the pressure off me - *Pupil, primary school, East Midlands*

It helps me to calm down in school. - *Pupil, primary school, South East*

Only minor concerns or frustrations were expressed by some students, and they thought the benefits outweighed the disadvantages. For example, one child felt that other pupils could copy their ideas when using speech to text software in the classroom. Other students expressed slight frustration at their reading pens not always recognising all words and sometimes spelling them out letter by letter.

Sometimes they read a single letter at a time. A. B. C. So sometimes you need to turn them off and on again then they work again. – *Pupil, primary school, East Midlands*

Importantly, students did not mention any negative attention from their peers when using the AT in lessons. In fact, they said their classmates tended to be envious of the "cool tech" they got instead, which made them feel proud.

It's fine [using AT around classmates who do not]. They can deal with it. It's not my fault I need it. - *Pupil, special school, South West*

Year 6 pupils and their teachers highlighted two areas of potential concern. One was whether pupils using AT to support with reading and writing would be able to use this during their Standard Assessment Tests (SATs). Teachers in two of the case study

schools were unsure about whether this would be possible and thought the guidance on this should be clarified.

Similarly, some teachers discussed the transition to secondary school and were unsure about whether their Year 6 pupils would be able to continue using AT if they did not have an Education Health and Care Plan (EHCP). They were planning to discuss this with the relevant secondary schools once the information about secondary school places was confirmed, and one teacher mentioned that parents of children using AT had also raised questions about this.

> All we can do is raise a ticket for extra transition support and give the secondary school as much information as possible. It becomes a big part of the transition meeting with the secondary school. – *Training participant, primary, East Midlands*

Communication with and views of parents

In the qualitative interviews, most teachers indicated that they discussed children's learning plans and targets with parents, and they involved them in the process through meetings. Often, they started using AT as a 'trial', and reviewed this with parents if changes were needed. TAs supporting children using AT reported that they also sat in on parent-teacher meetings so that they could provide more information about how the child was using AT to help them with tasks like writing.

Parents interviewed had seen very positive outcomes for their children, particularly in terms of improved behaviour and confidence. For example, one parent of Year 1 pupil, who used Prologquo2go on their iPad, noted their child's increased quality of life.

> My daughter is a lot happier. I guess the iPad is like her security net, she knows she can get across what she wants and be understood – she feels much more confident. – *Parent, primary, North West*

Another parent of a Year 5 pupil who had a confirmed diagnosis of autism but did not have an EHCP, mentioned how much calmer their child was when coming back from school after they started using AT in Year 4.

> He's not coming home with that Coke bottle effect. He was having angry outbursts, crying and stomping and getting down on himself. That happens a lot less now. He's proud of his work and wants to talk about it now. – *Parent, primary, East Midlands*

A few participants reported that they had not changed the way they engage with parents, but they were now including updates on the AT used by their child and how that affects behaviour and attainment.

> I do think that working together with the parents is how we do the best that we can do for their children. – *Teacher, special school, South West*

Some teachers were also finding AT useful for communicating with parents. One training participant described how their office staff were using the translator tool to translate text into the first language of parents of EAL parents. Another found the Notes speech to text app on the iPad a useful tool during parent meetings:

> I've found it quite useful to use with EAL parents. It helps to communicate with them. – *Teacher, primary, North West*

Chapter 6 Conclusions

Overall, the Assistive Technology Test and Learn training programme was welcomed by participants and had a positive impact on their (self-reported) awareness of AT and how it could be used in their school to support pupils. Evidence from the post-training survey and the qualitative case studies and depth interviews also found that course participants were cascading learnings to other staff in their schools and using the knowledge gained from the course to increase the use of AT to support individual pupils. AT itself had a transformative effect on the independence, engagement and progress of the individual pupils who were using it, especially to help with writing. Embedding AT as part of a broader whole-school approach was underway but was a gradual process.

In the rest of this section, conclusions are discussed in relation to the key research questions for the evaluation.

Implementation

Recruitment to the course was very successful, generating a high volume of expressions of interest relative to the number of places available on the course, which suggests extensive latent demand for this type of training.

Feedback from the course participants indicated that the course was well-structured, with engaging delivery and materials, with content targeted at the appropriate level of understanding and experience.

Most participants appreciated the longer course structure and the intervals between sessions for progressing inter-session tasks. However, attendance at the course was patchy and there was a larger drop-off between attendance at the first and the final sessions, compared with the shorter pilot programme.

The key improvements identified for implementing the course in future were:

- More hands-on discussion and learning about how to assess pupils' needs for AT.

- More use of videos and case studies to help bring the course material to life.

- More discussion about specific AT tools or products – although it was recognised that the delivery partners could not be seen to endorse specific products, course participants wanted more signposting to information that would help them decide which products to use.

- More ongoing follow-up support for participants, including continued access to the online course materials and supporting resources, and more ongoing support for

participants to share their experiences of developing the use of AT, after the course had finished.

Experience of the course

Although evidence is limited due to the small sample size, the participants who took part in the post-training survey and qualitative research had made a range of changes in their own and their school's use of AT. The qualitative case studies and depth interviews showed that, where it had not been used previously, AT had been introduced to support individual pupils with SEND and EAL. Where AT was used previously, learnings from the course had enabled participants to widen their knowledge and implement new approaches.

Alongside this, at the time of the follow-up research, participants were at different stages of sharing their learnings from the course, ranging from presenting this to their colleagues within school to sharing it more widely with SENCos in their local area. Reflecting the different stages that schools were at, there were mixed views about how embedded the use of AT was within the school and the extent to which there was a whole-school approach. However, there was evidence that schools recognised the benefits of using AT for pupils overall as well as specific individuals, and were building this into their decisions about IT, approaches to lesson planning and how they deployed teaching assistants.

Wider outcomes

Course participants reported a range of positive outcomes for themselves as individuals, in terms of increased awareness, confidence and knowledge about using AT to support pupils in their school. They also reported that the awareness and knowledge of their colleagues had increased as a result of learnings from the course being cascaded to other staff.

More widely, at the school level the biggest impacts on how teachers and teaching assistants used their time were in relation to teaching assistants. The case studies and depth interviews found that time that had previously been spent on a 1-2-1 basis to support individual children with tasks like scribing or reading aloud, could now be redistributed to support the wider class. Initially, more time was needed upfront to teach the pupils how to use the AT, but once they became confident users, they could work much more independently than before.

Related to this, schools reported improvements in the engagement, confidence, behaviour and progress of pupils using AT, in particular tools which could help them with writing. Pupils themselves spoke about finding lessons more enjoyable and said that they found it easier to focus on their tasks when using AT. Teachers described the

transformative impact that using AT like speech to text had on some of the children, who were now producing written work of a similar quantity and quality to their peers when they had previously had problems with handwriting which prevented them from being able to express themselves.

Areas where teachers would welcome more clarity are on the use of AT within SATs for Year 6 pupils, and on transition pathways into secondary school, where the same AT may not always be available to pupils as they move from Year 6 into Year 7.

Appendix 1: Logic model

Context	- Increasing numbers of SEND pupils. - Teachers report low confidence using technology to support SEND learners. - Get Help with Technology put more devices in the classroom and programmes such as Connect the Classroom have ensured these devices can work effectively. - This means schools have unprecedented access to AT. - Poor knowledge of AT is more acute in mainstream schools than other settings.	Problem	- Staff unaware of the AT already available to them. - Staff workload so high that CPD can be hard to fit in. - Not much time currently dedicated to SEND learners and no time to technology in initial teacher training (ITT), early careers training (ECF) and middle leader training (NPQL). - Staff lack expertise in the use of and assessment for AT to support SEND pupils.

Inputs	Outputs	Outcomes	Impacts
DfE funding Procurement activity & contracting Delivery partner resource 150 participants in mainstream schools (primary and secondary) Feedback from AT training pilot	5-month training course delivered (virtually) Online resource bank Case studies created Networks created Sharing of good practice	Increased awareness, confidence and use of AT for participants AT embedded in whole school approach Improved independence, engagement, behaviour and confidence of pupils with SEND, non-SEND pupils and EAL pupils Improved deployment of teaching and support staff	Increased awareness of AT in the sector Improved progress, outcomes and wellbeing for pupils with SEND Increased parental satisfaction for SEND and EAL families (better supported and engaged, decreased stress) Improved teacher wellbeing (reduced stress, increased satisfaction)

Assumptions	- School leaders engaged & supportive - Training participants engaged - Training participant time/availability to attend training sessions and spend time outside of sessions putting into practice what they've learnt - Digital technology and infrastructure available in schools

Appendix 2: Case studies

Case Study 1

This case study was conducted in a 2-form entry primary school in the South East.

Experience of the course

A member of the school's Senior Leadership Team (SLT) attended the Assistive Technology (AT) Test and Learn course, motivated to learn more about AT in the context of increased use of technology within the school during Covid.

He was very positive about the course in terms of 'opening his eyes' to what assistive technology was available. That said, he would have liked more ongoing support about putting the course learnings into practice, after the course itself had finished.

Impact of course on use of assistive technology (AT) in the school

The course has improved the participant's confidence and knowledge about the use of AT. The next step is transferring that to other staff and into the classrooms, which is still a work in progress. He has met with teachers and TAs to cascade knowledge, but there is more to do. The school is looking to support greater use of AT particularly through engaging TAs as they have a TA in every classroom. They want to develop pupils' confidence about using the tools available, such as assistive reader and speech to text tools on laptops. The aim is to build increased use of AT into a whole school approach, over the next 2-3 years. Lack of time has been a barrier to progress so far, as has limited availability of the school's IT technician, who comes in one day per week.

Impacts of AT in the school

Where children use AT, parents are involved – teachers discuss the plan and associated outcomes or targets with parents and involve them in the process through regular meetings. Often the teacher will introduce a form of AT as a 'trial', reflect on how it's going, and then discuss if changes are needed. TAs who are supporting children using AT also sit in on parent-teacher meetings.

The view from the SLT was that 'if we get it right, it will save time'. For example, TAs currently scribe for some of the pupils who find handwriting difficult, but AT such as speech to text on laptops could do this instead and free up the TA time for more 'added value' tasks and for spending time with other children.

One teacher agreed that AT can be time-saving but another felt that certain types of AT which rely on personalised curricula, while beneficial, can be more time-consuming because it takes time to set this up for each individual child and topic.

All year groups in the school use the 'Widgit' programme, which is dyslexia-friendly. Although this is targeted at children who most need it, all children can access it and use the same software, which supports the whole-school approach that the school is working to achieve.

> The children don't know any different as they all use it – the ones who really need it don't feel singled out while others benefit from it as well, and it helps with transitions between year groups because it's used all the way through school. – *Teacher*

Teachers and TAs were positive that use of AT can improve pupils' behaviour as they reported that it helps to avoid frustration and cognitive overload. For example, among pupils who struggle with handwriting, using a laptop can help them to get their thoughts down more freely, and produce a higher volume and standard of written work, which in turn improves their self-esteem and confidence. A mix of Year 4 and Year 6 pupils who were using AT (predominantly speech to text facilities on laptops) all thought this was made learning more enjoyable and helped with the flow of their writing. This in turn helped them to focus more in their lessons.

> You can get your ideas down on paper more quickly. – *Student (Year 6)*

> It helps me to calm down in school. – *Student (Year 4)*

One teacher spoke confidently about how AT can help pupils to stay in mainstream provision if appropriate, especially allowing them to stay in the classroom so they did not need to go and work with a TA 'out of class'. This avoided any feelings of alienation or 'otherness'.

> It helps to build up the 'whole class community spirit' – they feel the classroom is 'their space' and they're not being moved around within the school, to work in the library or with a different teacher or TA. – *Teacher*

Case Study 2

This case study was conducted in a small primary school in the East Midlands.

Experience of the course

The course participant has been a teacher for 20 years and is a SENCo. He found out about it through attending a local SENCo meeting. He had a very positive experience of the course, which he found informative and encouraged him to try different aspects of assistive technology (AT), which he was previously unaware of.

He thought the structure of the course, with regular sessions interspersed by inter-session tasks, worked well:

> It gave you time between the sessions to try things out, so you weren't just jumping in on it. –*Training participant*

He was positive about the knowledge sharing and collegiate feel to the course. In his own school, he has shared knowledge through a presentation to other teaching and support staff. He has also cascaded knowledge through a presentation on key learnings from the course to a meeting of SENCos from neighbouring primary schools.

> I've already recommended this to other SENCos. I told them you must go on it, it's an eye opener – you don't realise what's out there and what can support the children. – *Training participant*

Impact of course on use of assistive technology (AT) in the school

The course participant had no prior knowledge about AT before the course, which has inspired him and the school to find out more about AT and to start using it for certain children. They introduced speech to text and Immersive Reader for around five pupils in Year 4 and Year 5 (now in Year 5 and Year 6) and have seen really positive changes in pupils' engagement, confidence, and in their reading and writing.

> I knew nothing about AT to start with or how it could be used in a classroom setting. We didn't do any of this [using AT] before the course, the support that children got was all adult-led before and very labour-intensive. –*Training participant*

The school describe themselves as being 'on a journey' towards a whole-school approach to using AT and have since had a demonstration from the IT lead in their Multi Academy Trust, which has helped to cement and broaden knowledge.

Impacts of AT

The school is currently using Immersive Reader and speech to text facilities on laptops to support five children in Year 5 and Year 6 with writing (and one of them also with reading). One of the children spoke English as an Additional Language but now says he does not need to use the AT any longer as his English has improved. The others have various Special Educational Needs including autism and global delay.

Teachers and TAs were very positive about the impact of AT in the school so far. For children using it, it has made a big difference in terms of the level and volume of the work they can produce, their confidence, and their engaged in learning:

> One particular pupil, he had low confidence because his writing just didn't match with what he was trying to say. It was like a lightbulb moment for him, that his writing was on a par with his peers. It opens a different world for them that they are producing work in line with what their peers are doing. – *Teacher*

> It's freed up their creativity. When you see their handwritten work, you see the gaps in their thought process and they struggle to get it done. But this takes away the worry and panic about writing. – *Teacher*

In addition to the individual benefits, teachers also reported wider benefits for the class as a whole:

> It helps the children to focus on the task, because the task is more accessible for them. This means there is less low-level disruption in class and makes the class a more positive environment. – *Teacher*

The interviewees also reported that they could use TAs' time to benefit the whole class, as they no longer have to spend so much time scribing for individual children.

> It changes how we deploy TAs. The children are more independent so they don't need the constant adult support and the TA can help with other children, so it helps the class as a whole. – *Teacher*

The children themselves were really positive about the impacts of using AT on their confidence, concentration and enjoyment of lessons.

> It helps you understand more. – *Student*

> It boosts my confidence in English and puts the pressure off me. – *Student*

Parents were equally positive. One, whose son is autistic, reported that although he is a strong reader, he struggled with his writing and was sometimes being kept in class during breaks as he was not completing writing tasks on time. Since using AT to help with writing:

> He's not coming home with that Coke bottle effect. He was having angry outbursts, crying and stomping and getting down on himself. That happens a lot less now. He's proud of his work and wants to talk about it now. – *Parent*

Being able to complete the work in class means that he is no longer having to work during breaks/lunchtime, so he has more time for socialising.

He doesn't make friends easily with children his own age, so it's been really important… He was missing out on those social times. – *Parent*

Case Study 3

This case study was conducted in a 3-form entry Nursery and Infant school in North West England.

Experience of the course

The school's SENCo attended the Assistive Technology Test and Learn course. They were told about the course via an email from the Local Authority's SENCo Network. Despite some reservations that there would be major cost implications, and the types of technology may be too complicated for the children to use, the SENCo attended the course, motivated to learn more about what assistive technology (AT) is available and to get ideas on how to support children who were having difficulties with written communication.

The participant was very positive about the course and had cascaded their knowledge to a few members of staff, including members of the senior leadership team, teachers, and teaching assistants (TAs), with plans in place to run a course for all the teaching assistants, and eventually enlist an 'AT Champion' to take ownership of AT and share their knowledge with new TAs and those less confident.

The participant was not available for interview during the case study, but the Headteacher and Assistant Headteacher, together with teachers, teaching assistants and pupils were very positive about the knowledge that had been shared with them.

Impact of course on use of assistive technology (AT) in the school

The school has embraced the use of AT, and they have seen increased confidence in the children who use it, especially those children who use 'Speech to text Notes' on the iPad. Children record their speech straight onto the iPad using the Notes app. TAs then print it off and read it back with the child.

> We've seen huge changes to their esteem and confidence. It's increased their vocabulary and it's really helped to plug some reading gaps, especially after COVID. – *Leader*

> Children who had used it over the summer, their spoken language developed because they became aware of how they needed to sequence and say, and where to pause. – *Teacher*

The school were unclear about how Ofsted would recognise the use of AT in meeting targets.

> With a child who is able to use speech to text to tell a story, can we, as a reasonable adjustment, say they were meeting age related expectations?
> – *Leader*

All year groups in the school use the 'Widgit Online' programme, which is dyslexia-friendly and supports the whole-school approach that the school is working to achieve. Seesaw is also widely used, allowing children to click on a QR code and hear a story or listen to a class discussion, which can help with word recall, and has been used successfully with all children, especially children diagnosed with cognitive delay.

> It [Assistive Technology] is very much built into our universal offer. We are very strong on adaptive teaching and we do what is needed to help children access the curriculum and keep up and assistive technology is part of that toolkit. – *Leader*

Impacts of AT in the school

AT has been used mainly with children with SEND, but also with others who staff thought could benefit from additional support. Teachers work together with parents to adapt AT to meet their child's learning aims. TAs described how the use of AT, particularly speech to text 'Notes' on the iPad has been a 'game changer' for some children and the children using the app were very positive about it.

> I really like using it [speech to text]. It makes me feel confident. – *Student*

One teacher felt that using AT saved a lot of time, particularly for TAs not having to scribe for children. However, most agreed that although it supported learning, and helped with transitioning between year groups, it did not necessarily save time.

> It is quite labour intensive. It's not just a case of here's the iPad off you go. The TA needs to work 1-1 with the child to support them with chunking and breaking sentences down and the iPad can't do that for them. – *Teacher*

Two children in the school were using an iPad with the app 'Proloquo2go'. Augmentative and Alternative Communication (AAC) are a set of tools, systems and strategies designed to help people who experience difficulty with speech. The iPads were acquired through the school's Speech and Language therapist and is a paid app, supplied by the NHS, to help two children at the school who cannot (always) use speech to communicate and connect. One parent of a Year 1 child, diagnosed with cognitive delay and selective mutism, reported seeing a huge improvement in their child's confidence and self-esteem.

> She is a lot happier. I guess the iPad is like her security net, she knows she can get across what she wants and be understood, and she feels more confident. – *Parent*

In terms of children's behaviour, teachers and TAs were seeing that the use of AT was having a positive impact, particularly with children who got frustrated when they struggled to get their thoughts onto paper, and were able to do this a lot easier with the speech to text Notes App.

> Since using the speech to text on the iPad his [Y1 child] whole mindset has changed. He says, 'I can do it and I'm going to do it'. He really loves writing now. – *Teaching Assistant*

The school has recognised the need for AT in the school to support the children with learning. They would like to see improvements in the technology available to them. As a nursery and infant school, they only use iPads and the speech to text 'Notes' app is limited in terms of the types of fonts available.

The number of children needing to use Assistive Technology is increasing each year, so we've had to change our approach to meet the needs of the children. – *Leader*

Case Study 4

This case study was conducted in a special school in the South West of England. The school specialised in autism and communication support, covering both primary and secondary ages, with some students closer to mainstream school needs.

Experience of the course

The course participant was the SENCo and Assistant Headteacher. She had been with the school for 5 years and in her current position for a couple of years. The school CPD lead had received the invite email from nasen and suggested she may be best placed to attend.

> It kind of came in at the right time for our school. Our designation changed from "Autism and SCMH" to "Autism, speech language and communication needs" so it was a very good time for that to come in and for us to implement some changes based on it [the course] gradually. – *Training Participant*

However, the school still considered themselves at the beginning of a long process.

The participant had a good experience of the course overall. The course covered exactly what their school needed it to cover, not just in terms of the kinds of AT available to

schools, both free and paid for, but also in terms of assessing needs, sourcing AT, incorporating it into policy, budget, and lesson planning. The self-audit tool from the course was seen as the most impactful and most helpful to return to. Other tools saved were the session slides and intersession tasks and web links.

> Because they had the interactive group discussions, we were able to network and support each-other as well. And I thought the sessions were spaced out quite nicely because you were able to think about what you'd done and do something from it. – *Training Participant*

So far, learnings from the course have been shared with other colleagues in small groups, typically at the end of meetings or on a one-to-one basis based on needs brought forward by teachers and TAs. The participant was planning two big sessions for disseminating information more broadly, towards end of February, as part of the school's two days of knowledge sharing "fest" to both internal and external staff.

Impact of course on use of assistive technology (AT) in the school

> The course made me understand what assistive technology was. So, in my head I thought it was all of this amazing, fantastic technology that was far beyond what we could get but it made me realise that more accessible things like visuals, basic uses of computer tech, etc is also incorporated in that. So that was useful. – *Training Participant*

The teachers found the SENCo to be very open to suggesting AT to find viable solutions for all students, and very helpful. As a result, more teachers and TAs in the school were using AT and therefore their confidence around it improved.

Since the training, for the formal curriculum classes they had implemented reading pens and started using their laptops and smart boards more efficiently in terms of their built-in accessibility features. They had also brought in new AT for the semi-formal classes, like more iPad apps and a couple of computer apps that facilitate communication on top of the sound buttons and iPads they were already using. Other useful platforms they started using were Twinkl.com which has a lot of worksheets they can use, Topmarks, Goldentime, Proloquo, reading apps, as well as using the interactive whiteboard for games and the visual timetable.

> Reading pens have been amazing. We've got quite a few students across the school now using Reading Pens and as they are part of our normal way of working it doesn't affect their access arrangements and more students are able to use them rather than somebody reading for them. – *Training Participant*

I think there's been a real push at the moment to get the wider school community to use AT. So, trying to educate teachers that any child might benefit from AT, rather than just the non-verbal semi-structured classes. – *Teacher*

Impacts of AT

AT simplified teacher tasks and allowed the mainstream teachers to better spend their time helping more students than reading to a few. In some cases, AT may have increased a teacher's workload at first, just to set the AT up, and train students and TAs.

The teacher would have previously gone around reading to each individual student and she had four of them on her class at different levels. She is now able to spend her time assisting more students rather than reading for the few pupils. – *Training Participant*

[Classes] are more interesting now. Because you're not there just waiting for the teacher to come help you for five minutes, while she walks around and doesn't listen to you. This happened on a few occasions when we didn't have the reading pens. – *Student*

In terms of impacts on the students themselves, with the use of AT they were better able to access the curriculum and access qualifications that they couldn't have got otherwise, and for the semiformal students, able to communicate their own voice. TAs also mentioned AT helped students calm down and be more engaged with what they were doing, by reducing some of the frustrations associate with various barriers (writing, reading or communicating more broadly).

We now have students accessing entry-level and functional skills, who couldn't access that without assistive technology, so they are actually coming out with qualifications that they may not have been able to come out with previously. – *Training Participant*

AT had "massively" improved independence for the students for whom it has been identified and used so far. The key types of AT in this were the reading pens and the apps on the iPad allowing students to use them as their own voice.

The students' reactions [to the reading pens] were brilliant. It was lovely to see how they were just sat there independently working. – *Teacher*

The reading pens enabled students to access more information and literature than the students would have read otherwise.

> They're really useful. After [using the one at school], I got one at home. I use it for homework and in restaurants, to read the menu. – *Student*

> It's helpful. When you get given a big book, what do you do with it? I use the [reading] pen. I read The Hobbit like that. – *Student*

The AT has an even more transformative impact on the higher needs, semi-formal curriculum students,

> We have one pupil who is completely non-verbal and gives very little indication of what he's aware of and what not. And one day he picked up one of the iPads from one of the other children and found the keyboard option and typed something like a dinosaur name and we were amazed because we didn't know that he knew that. So now he has an iPad with an app that he can type in and now he's also starting to use it functionally to ask for snacks. He's also interested in numbers and using numicon, so we're using the iPad to try to go towards some academic learning as well. –*Teacher*.

> Behaviour wise, the child who we've now learned can type… He's a very energetic child, and he is definitely more settled since having a way of communicating with us. Some of his bouncing must have been frustration at not being able to communicate with us. – *Teaching Assistant*

For any enquiries regarding this publication, contact www.education.gov.uk/contactus.

This document is available for download at www.gov.uk/government/publications.