

Scarborough UTC Case Study

Intro

Scarborough UTC is a 14-19 technical college which offers pupils the chance to gain practical experience in engineering, computer science or health whilst studying for Technical Qualifications and GCSEs, with strong links to local industry. With pupils joining at the end of Key Stage 3, the Maths department — led by Director of Maths Hannah Smith — faces a big challenge in identifying each pupil's starting point and then preparing them for GCSE success. As Hannah explains, "There are discrepancies between what's been taught from school to school. Because you haven't had them for the three years prior, you don't know where there will be gaps." In January 2022, to support underperforming pupils in particular, Hannah and SENCO Hayley Briggs decided to buy into TUTOR to diagnose and plug these gaps — and the outcomes for pupils have been, in Hayley's words, "phenomenal".

Personalised maths intervention

Having focused previously on literacy intervention, this year the team at Scarborough decided to shift their aim more towards numeracy skills. Hayley and her team already ran three intervention cycles a year, one per term, with an assessment at the beginning and end to track impact. "We tried a couple different programmes in September for our first one up until Christmas," recalls Hayley, "and it was at that point that Hannah discovered Complete Maths."

Hayley was initially drawn to the platform because of the inbuilt diagnostic assessment which then signposts pupils towards targeted work. "It's the personalisation that I really like about it," she says. "It's not prescriptive in terms of making every student do the same lessons — it becomes a bespoke package."

This was especially important given the variability of previous maths teaching for pupils joining the school. "Some of our kids tell us they haven't had a maths teacher yet, over three years of Secondary School," Hannah explains. "Then of course with COVID, some of them didn't attend school for most of the two years, and as it is a deprived area, the [homelearning] provision wasn't accessible. Scarborough is an opportunity area for a reason - in terms of the deprivation index, some of our kids come from the most deprived areas. They might not be a 'Pupil Premium' pupil, but they're still disadvantaged as the aspirations of the local area are very low. The Complete Maths team understood this and helped us find a solution."

Measurable improvement for all pupils

Hayley recognised that "you need to walk before you can run", so their initial TUTOR rollout focused on a group of pupils following testing of the whole cohort using the Progress Test in Maths, where a score of 100 is the average for pupils of the same age nationally.

This year, around a third of Year 10 UTC pupils' scores were low for their age at between 70-90. Hayley was able to target these pupils with three sessions per week of 20 minutes on TUTOR, with a TA with them for support, and was even able to extend this to a pupil with a score of 93, despite the high proportion of pupils needing support. "I wouldn't have otherwise been able to intervene with a student that high. They were looking at moving up maths sets and we wanted to be able to boost them up so they would have security in the higher set. They improved to 112 - an improvement from low in the 'average' band to 'above average' for their age."

As this was the first year of numeracy intervention, Hayley wanted to include a few Year 11 students, but knew she needed to take a different approach. "The focus of Year 11 needs to be the curriculum time in lessons, so we managed to strike a balance by students using TUTOR during tutor time rather than removing pupils for intervention during curriculum time."

Testing pupils at the beginning and end of each intervention cycle means Hannah and Hayley can see just how impactful the programme has been. "Within one intervention cycle we've had a student with a starting point of 85, and by the end of that 10 weeks, they're at 102," Hayley reveals. "Another started with 78 and went up to 103! They've had the gap closed and scored in line with age-related expectations."

Tracking long-term impact

Hayley and Hannah were also keen to see the long-term impact of what they were doing. When Hayley decided some students who had done one intervention cycle up to Easter and achieved scores of 100 and above would stop intervention and go back into lessons full time, she tested them again at the end of the second cycle, even though they'd had no further intervention.

The results were exceptional: every single pupil maintained age-related standardised scores, and one actually carried on improving above this. Hayley believes she knows why: "Our interpretation is that by the gaps being closed, we have been able to further increase their skills, and we've seen that impact translate into the curriculum. It's definitely impacted on their confidence as well - in lessons they are succeeding and as a result, they're keeping up with their own age-related expectations or improving further."

It's not just in maths that such impressive improvement is having an impact: "This [increased] confidence then translates into their other subjects," Hayley adds. "Because they are achieving and making progress in one subject, it makes a really big difference in their confidence across the board."

Planning for future success

Unlike in-person tutoring, where a maximum of three pupils can ever access a funded tuition slot, using an Intelligent Tutoring System like TUTOR also means the whole cohort can benefit. Hannah explains, "We've been able to use TUTOR with the students we needed to, but it's there for everyone now we want to open it out to all." The plan now is to develop the use of TUTOR among generalised rather than targeted pupils, across a mix of focused groups, larger peer groups, and perhaps even with sixth formers running the sessions. "We're [not just] going to be targeting our disadvantaged students," Hannah says. "It's been so successful with our students so far, we want that success everywhere else as well!"

Next academic year, Scarborough UTC will be welcoming year 9 pupils for the first time, as well as a new year 10 intake. Hayley has big plans for SEN provision during this period of change: "We will have students working in a small group with TA support of maybe two or three students at once, rather than just 1:1. Then with our disadvantaged (PP) students, particularly those that are higher or middle attaining, they will be able to access TUTOR independently, and we're looking to replicate the success we've had with our lower attaining students with these different cohorts of students as well."

In December, almost one year after beginning with TUTOR, Hayley and Hannah will retest pupils one more time to check for prolonged impact. So far, reflects Hayley, "The impact has been absolutely phenomenal!" With such a strong initial rollout, Scarborough UTC pupils will begin the new academic year in a stronger position than ever.