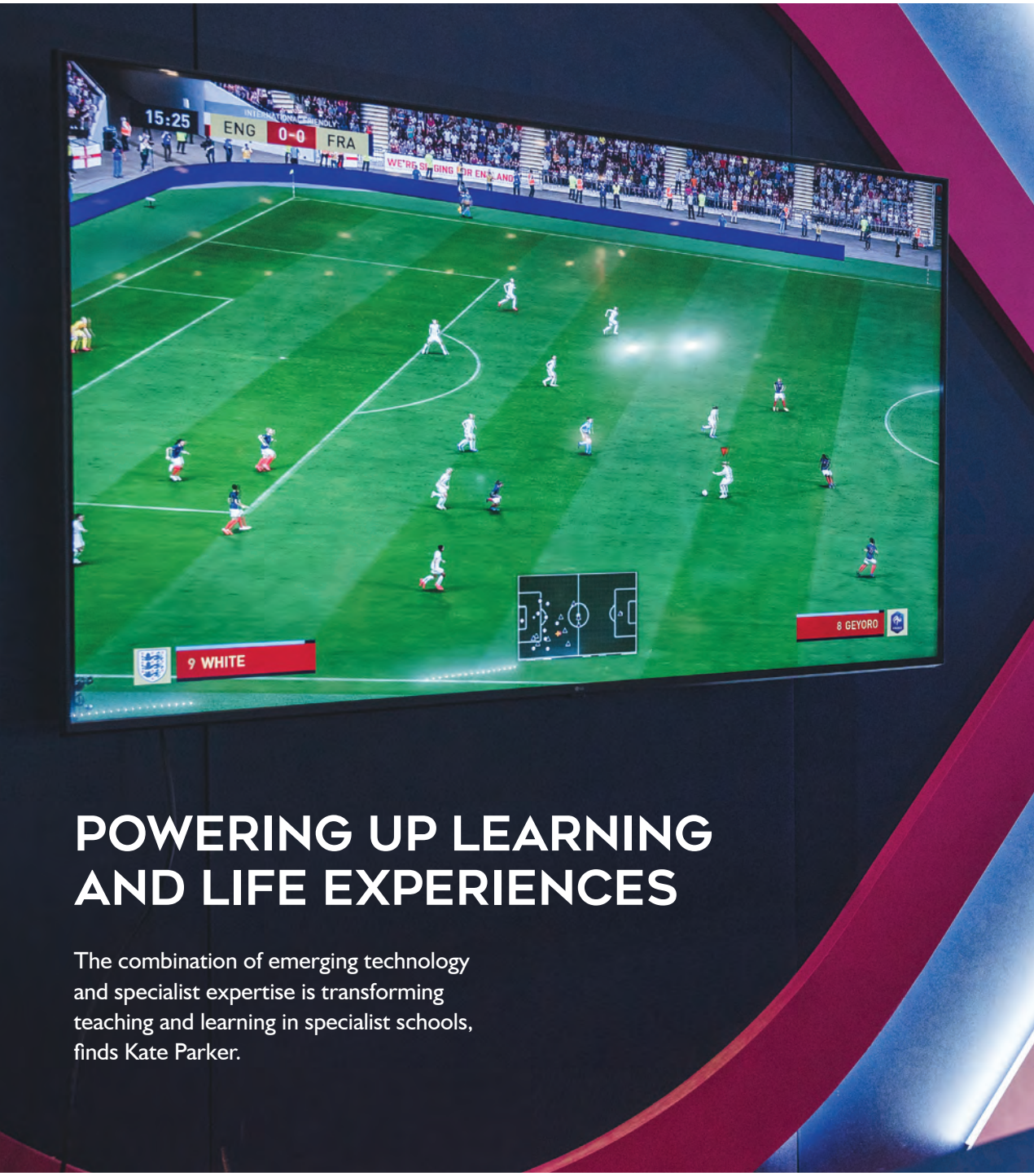

POWERING UP LEARNING AND LIFE EXPERIENCES

The combination of emerging technology and specialist expertise is transforming teaching and learning in specialist schools, finds Kate Parker.

Esports
BRITISH
ESPORTS
Supporting partner
SHI
ADAPTIVE GAMING KIT

Ask anyone who meets him, and they'll tell you: Dan is an incredible gamer. FIFA is his passion, and he's a serious contender at the national student competitions. But unlike other competitors, Dan's ability to play and participate is reliant on factors beyond his dedication and skill.

Dan has cerebral palsy, and in order to navigate everyday life, he uses a power chair and an eye-gaze communication device. You might have thought that this would limit Dan from playing esports at all, but his teachers at National Star College, provider of specialist personalised learning for 16–25-year-olds in Cheltenham, England, have utilised technology and adapted an Xbox controller to ensure that the world of gaming is accessible to him.

Dan's story is just one of many: for pupils with SEND and complex needs, emerging technology and specialist expertise are transforming both learning and life experiences across the country.

Realising a world of potential

At National Star, innovative use of assistive technology means that students have opportunities to access and experience the world in ways which may have been impossible in the past.

Participation in esports is one such example, and a yearly ski trip to Andorra is another. "The ski experience is so motivating for the students; we take 28 learners at a time and they are accompanied by a whole range of support staff including those with medical expertise and therapists," explains Joanne Kingsbury-Elia, director of learning and support.

"As well as the assistive technology, we use other tech to capture the experience, keep video diaries, and communicate with home," she says. "Most of us have memories of going on holiday with our friends, and technology allows us to provide that unforgettable experience for these students."

Technology is also being harnessed to enhance learning experiences, and record progress. Staff are using handheld devices to capture pictures and videos of progress which can then be compared with personalised targets, for example, while students are using iPads themselves to chart their day.

"Our speech and language teams are always adding different apps to students' iPads; there's such a range available now. Our day learners, for example, use an app called Proloquo2Go, which allows them to diarise their day," she says.

"Non-verbal students can't have that feedback with their families at home, but through this augmentative and alternative communication (AAP), families can look at photographs and videos of their day and it facilitates a really rich conversation with them. It's a very simple concept, but it has a huge impact."

Like National Star, the Royal School Manchester, in northwest England, is a specialist provider that places technology at the heart of its provision. "Over the past five years, we've seen some great improvements in access to software for our cohort, and it makes a real difference to teaching and learning," says assistive technologist Sarah Keddy. "Previously, it's been difficult to find technology that pupils could engage in and learn from but recent developments have helped to bridge that gap."

For example, the platform Boardmaker supports access to the curriculum, including communication, literacy and numeracy, and supports transitions from activity to activity with videos and pictures. The school also uses immersive technology, like a giant bee sculpture which buzzes when students stroke it, and rooms with virtual reality software, which can help students to experience something like riding the bus, before they try to do it in real life.

Debbie Phelan, also an assistive technologist, adds that it's simple mainstream technologies which have great outcomes for students - for example a TonieBox to access literacy or Bee-Bots to build programming skills.

According to needs, impact and cost

At both settings, the emphasis on purpose is clear, and technology isn't purchased for the sake of it.

"We look at the student first, think about what it is we want to achieve, and then come up with a plan, which may or may not use technology," says Phelan. "We avoid buying technology just because it's flashy and is high-spec. It has to be about the students and their needs - that's the key to successful integration."

Kingsbury-Elia agrees, and says that impact is the key consideration. "For our learning and environments, it's very important that technology is used to support learning and also to motivate the young person. It's not here to show off, it's got to have intent and lead to an outcome."

Of course, this technology is costly, although both the settings say they are fortunate in having the funding available to be able to purchase and facilitate its use. However, that's not to say that cost isn't a consideration, says Kingsbury-Elia.

THE SCHOOL ALSO USES IMMERSIVE TECHNOLOGY, LIKE A GIANT BEE SCULPTURE, WHICH BUZZES WHEN STUDENTS STROKE IT.

DOUGLAS
bluelisk
Dirty Dog
Mercedes-Benz
UCI
MOUNTAIN BIKE
WORLD CUP
VALLNORD PAL ARINSAL
ANDORRA

...INNOVATIVE USE OF ASSISTIVE TECHNOLOGY MEANS THAT STUDENTS HAVE OPPORTUNITIES TO ACCESS AND EXPERIENCE THE WORLD IN WAYS WHICH MAY HAVE BEEN IMPOSSIBLE IN THE PAST.

"We don't want to have all-singing and all-dancing equipment, if it's not something that students can take with them once they leave college. When we're looking at environmental controls, like Bluetooth equipment to help control radios, open curtains or doors, we want to make sure that there's a comparative resource available on the market for when the student leaves," she explains.

Sean Gardner is the founder of English edtech company GLUU, and he agrees that any investment in technology needs to be sustainable, not just for students in life beyond school or college, but within the provider itself.

"There may be short-term funding to buy additional kit or change the learning environment, but those things aren't one-off purchases. When making decisions about technology, schools need to have a long-term plan to ensure it can be maintained," he remarks. There also needs to be a commitment to upskilling existing teachers and hiring specialist staff with the technological expertise, adds Gardner.

However, it's clear that where technology is used to genuinely improve outcomes for students, and staff have the expertise, it can be transformative for teaching and learning. And actually, the impact can go beyond the school community, argues Kingsbury-Elia. "The key drivers should be individual benefits to individual students and the college community, but we also have a purpose to educate the outside world so that they can consider how to develop certain technologies to be accessible," she says. "You can only do that by getting out there and experiencing it." ■