EDUCATIONAL GUIDE

THE SCHOOL OF THE FUTURE

ONVU LEARNING

WWW.ONVULEARNING.COM

INTRODUCTION

ONVU Learning is the education division of ONVU Technologies group. With over 20 years of education, video and technology experience, ONVU Learning is focussed on improving teacher coaching, development and satisfaction, and ultimately student outcomes.

Partnering with schools, governments and education advisors around the world, we are determined to design, refine and align multiple technologies to play an important part in defining the learning environments of the future.

PARTNER SCHOOLS

Read our success stories of how schools around the world are using ONVU Learning's lesson observation and teacher reflection tools to improve their teaching standards and student outcomes.

VIEW ALL CASE STUDIES →

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WHAT WILL SCHOOLS LOOK LIKE IN THE FUTURE?

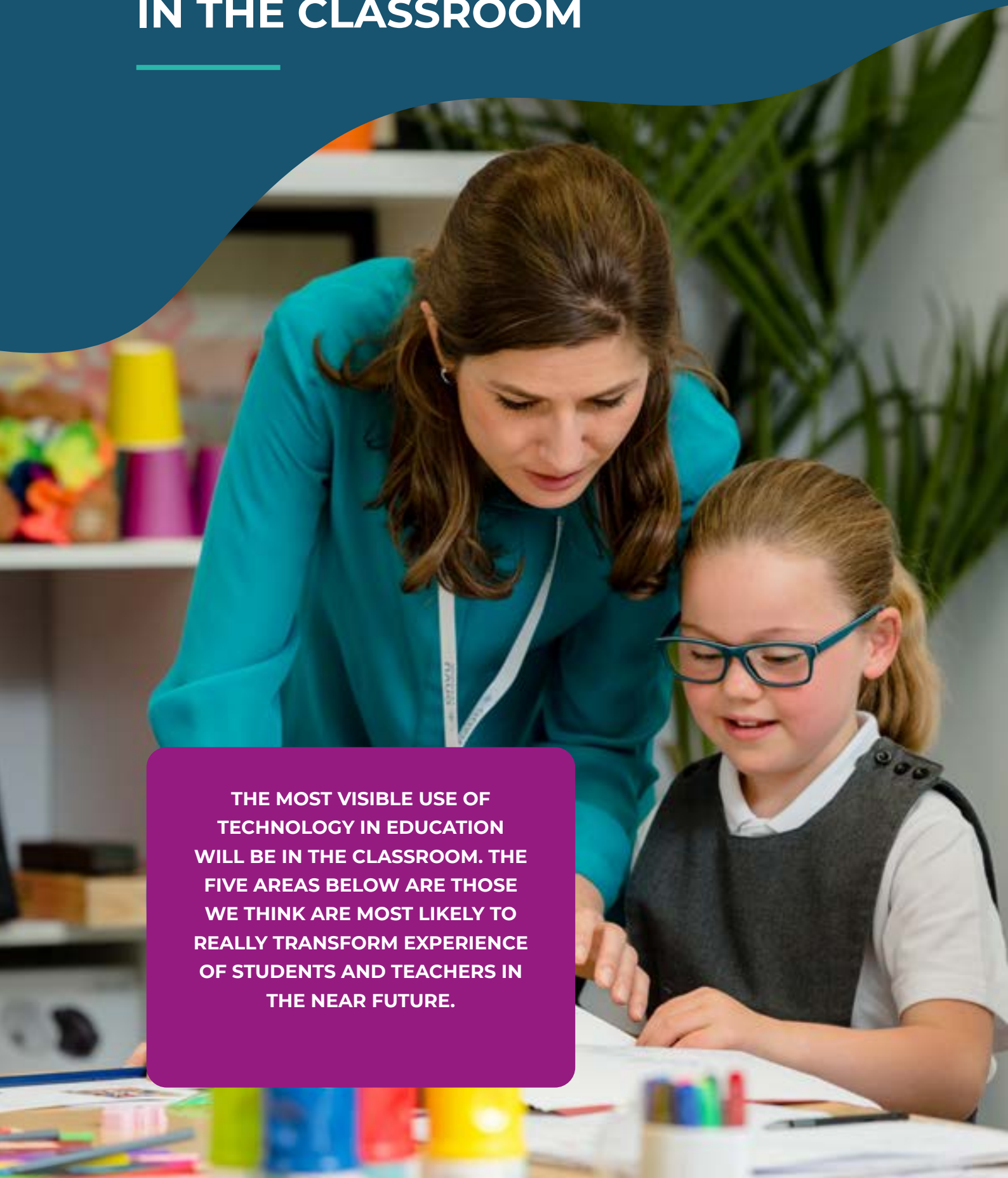
Predicting the future is always going to be difficult. Fifty years ago, science fiction writers would have got it wrong if they suggested that classrooms in 2020 would have robot teachers, holographic books and practical lessons on making space rockets. However, they would have been correct in predicting instant access to almost every piece of human knowledge via the Internet, voice recognition software and global video communication.

So, what is next for schools? How will new ideas such as artificial intelligence, voice enabled systems, the 'Internet of Things' and augmented reality affect them? Will they use existing technology such as video or mobile devices in new ways? And how will technology help outside the classroom in vital areas such as teacher development and parental engagement?

This guide is aimed at helping school leaders and teachers make informed choices on designing the learning enviroments of the future, as they seek to prepare children for the rest of the 21st century. If just half of these ideas are right, we're set for a real classroom revolution!

WE'LL COVER:

HOW TECHNOLOGY WILL CHANGE TEACHING AND LEARNING **IN THE CLASSROOM**



THE MOST VISIBLE USE OF TECHNOLOGY IN EDUCATION WILL BE IN THE CLASSROOM. THE FIVE AREAS BELOW ARE THOSE WE THINK ARE MOST LIKELY TO REALLY TRANSFORM EXPERIENCE OF STUDENTS AND TEACHERS IN THE NEAR FUTURE.

GLOBALLY CONNECTED CLASSROOMS

The British Council e-Twinning3 project is one of the world's leading projects in this area, bringing schools together across Europe. As well as helping schools learn each other's languages, the project has been used to share lessons in subjects as diverse as history and technology. In the future, there will be more and more schools joining such networks as 5G connections remove the need for WiFi connection in many countries, while Alphabet's Project Loon4 brings Internet access to remote areas of other countries via balloon!

EXPERTS IN EVERY CLASSROOM

As well as connecting students, there will also be a huge opportunity to bring external expertise into your classroom to explain specific ideas or to stimulate research and discussions. These can range from the unique experience of a live link with astronauts on an International Space Station5 to accessing the expertise of Australian maths educator Eddie Woo, whose talks on key mathematical principles have been watched by millions of students. Or it might be using the expertise of a modern language teacher who works across a number of schools remotely to ensure that all students can access a wider curriculum.

PERSONALISED AND FASTER LEARNING JOURNEYS WITH ARTIFICIAL INTELLIGENCE

Teachers are increasingly working alongside intelligent learning tools. Rather than assigning everyone in the class with the same task, teachers can use applications from companies such as CENTURY (who are working with 700 schools in Belgium) to provide tailored learning, while identifying common misconceptions. They can then move quickly to support the students who need it most.

VIRTUAL AND AUGMENTED REALITY

Virtual reality technology has existed for a number of years but is now making a real impact in the classroom allowing students to 'see inside' living organisms, experience life at different historical times and create and explore new worlds in geography. Augmented reality

adds further dimensions so students can simultaneously view objects and information about them– providing the 'dual coding' that some neuroscientists suggest leads to better knowledge recall.

RECORDING AND SHARING LESSONS

With greater use of video in classrooms, it's easier than ever to capture key parts of lessons where new ideas are introduced, and solutions scaffolded. Linking systems (like ONVU Learning) to learning management systems (LMS) allows students to review missed lessons as well as going over areas they are less confident in.

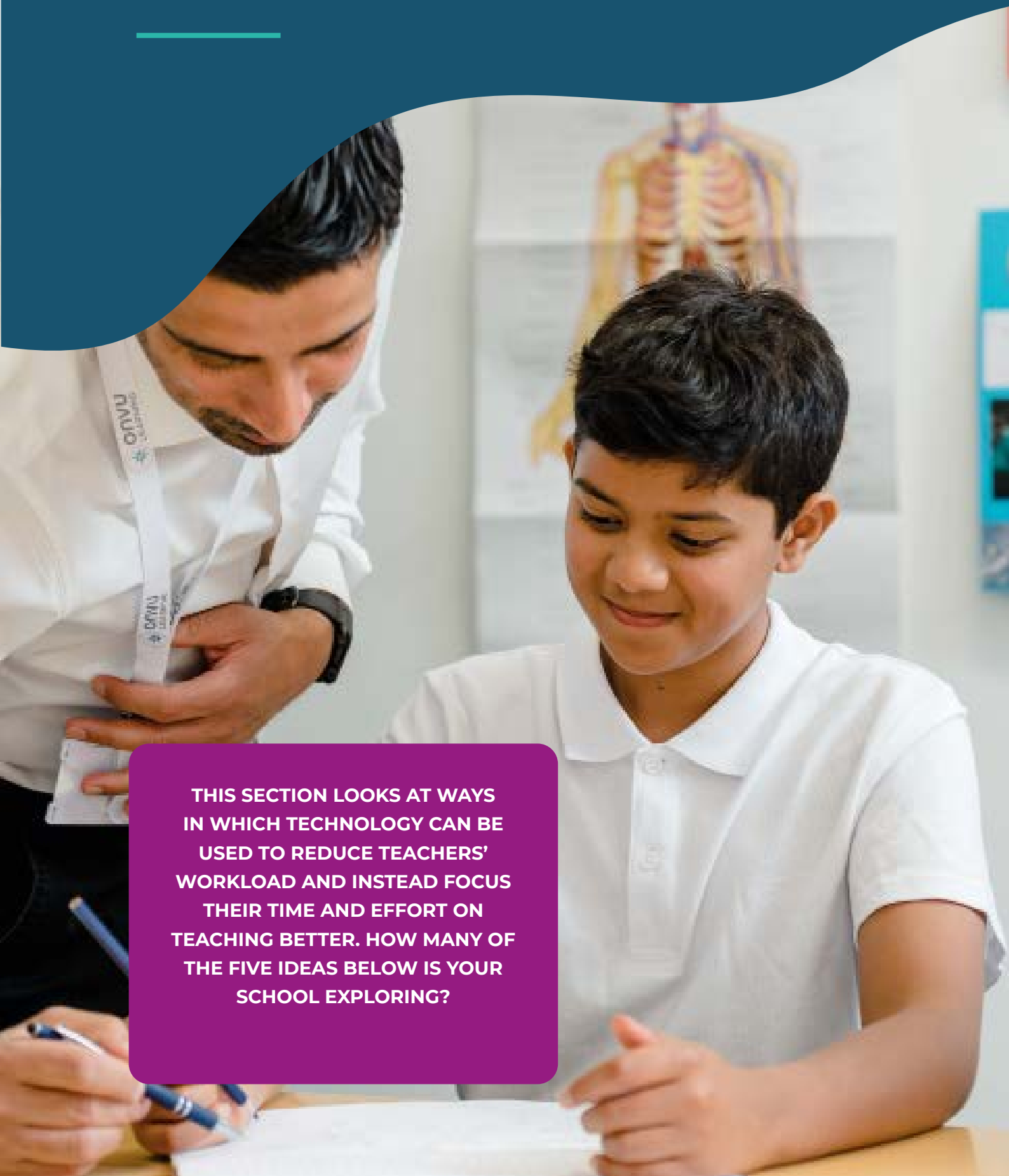
EXTRA RESOURCES

THE CLASSROOM OF THE FUTURE GUIDE

In this guide we're looking at the challenges and opportunities recent disruptions presents, how teaching is changing and adapting using innovative ideas and technology, and how to maximise learning experiences. We're imagining the **'Classroom of the Future'**.

DISCOVER THE GUIDE→

HOW TECHNOLOGY CAN HELP TEACHERS WITH PREPARATION **AND ASSESSMENT**



THIS SECTION LOOKS AT WAYS IN WHICH TECHNOLOGY CAN BE USED TO REDUCE TEACHERS' WORKLOAD AND INSTEAD FOCUS THEIR TIME AND EFFORT ON TEACHING BETTER. HOW MANY OF THE FIVE IDEAS BELOW IS YOUR SCHOOL EXPLORING?

1 USING ONLINE CONTENT TO TRAIN TEACHERS AS WELL AS YOUR STUDENTS

You've probably come across content-rich online courses such as Your Favourite Teacher and recommended them to students. But they're also a great way of helping your teachers quickly get up to speed with new courses or topic areas around their teaching commitments. Of course, these complement the many online options offered by exam boards and commercial companies.

2 USING ASSESSMENT TOOLS THAT ADAPT TO THE PROGRESS OF INDIVIDUALS

Teachers have spent years creating complex spreadsheets to log progress and are increasingly being asked to produce individual learning interventions. However, tools such as Tassomai are taking this burden from teachers by providing personalised revision and assessment programmes that allow teachers to continually monitor progress

3 REDUCING MARKING TIME WITH AUTOMATION AND COMPARATIVE MARKING

In some subjects, marking homework can be reduced to almost zero. Perhaps the most obvious subject is Maths, with many schools now using apps such as MyMaths or Mathletics to mark and report on homework. Other subjects such as English suffer from the need for more subjective marking, but one of the UK's highest profile EdTech start-ups, No More Marking, is looking to solve this through 'comparative marking' – arguing that

it is much faster to compare and rank pieces of work rather than marking them individually.

4 ENCOURAGING STUDENTS TO SEEK ONLINE SUPPORT AND ASK QUESTIONS

Schools often run revision lessons in the run up to SATs and external exams which have little impact on student learning. It's much better to give them a list of online support resources such as FuseSchool and ask them to create a list of questions that can be quickly answered at the start of end of lessons.

5 OUTSOURCING HOMEWORK ADMINISTRATION

How much time do teachers spend reminding students about homework, chasing work and then entering results into multiple spreadsheets? Educational technology is a huge help here – with apps such as Show My Homework which let students find out what they have to do (and even if they 'forget their passwords', they can see their homework!).

HOW TECHNOLOGY CAN HELP SCHOOLS RECRUIT, RETAIN **AND DEVELOP TEACHERS**

COUNTRIES AROUND THE WORLD ARE SUFFERING FROM A TEACHER RECRUITMENT AND RETENTION CRISIS, WHILE RESEARCH STUDIES LINK THE IMPORTANCE OF TEACHER QUALITY TO STUDENT SUCCESS. THE IDEAS BELOW SHOW HOW TECHNOLOGY CAN SUPPORT AND TRANSFORM THESE IMPORTANT AREAS.

TRACKING TEACHER DEVELOPMENT OVER TIME

Teacher development can be haphazard in many schools - paper records make it difficult to see who has had essential training in areas such as safeguarding, let alone developmental training. Companies such as BlueSky Education move this online, empowering teachers to manage their own development while allowing schools to see how the skills of the whole school are developing.

FACILITATING PART-TIME AND FLEXIBLE WORKING THROUGH BETTER TIMETABLING

This is an area specifically mentioned in the UK EdTech Strategy. It's often not easy for schools to fit part time and other models of flexible working into their current timetables, despite the strong evidence that this improves teacher retention. Kennet School in Berkshire, England, was able to make huge improvements to its timetable and save hundreds of thousands of pounds by using the latest technology.

RECRUITING BETTER TEACHERS FASTER AND MORE EFFICIENTLY

Recruitment of good teachers is one of the biggest challenges for many schools at the moment with recruitment adverts often producing few (or in some cases no) applications. One key problem is that application forms for teaching jobs tend to be long and complex and can put off current teachers.

However, education recruiters are learning from other industries where

recruitment is far more automated. The TES now has a 'Quick Apply' feature where an application form is populated with key information provided by the jobseeker earlier, and the progress of the application can be progressed online. Schools have a long way to go through to reach the automation levels seen in other sectors. Check out what recruitment technology company eArcu offers recruiters on their website.

REAL REFLECTION ON REAL LESSONS

At ONVU Learning we believe that letting teachers capture and share their lessons for reflection and coaching is the future. Peer-to-peer learning is already a thing, as this enables them to further get the right support to 'see things they wouldn't be able to see alone', while helping other peers in their development journey. The plus side of using classroom video recordings is that it removes the risk of 'interpretation' as the viewer sees what really happens in the class, as well as anyone else watching the video subsequently.

HOW TECHNOLOGY CAN HELP SCHOOLS ENGAGE PARENTS **AND COMMUNITIES**

TECHNOLOGY BREAKS DOWN BARRIERS OF DISTANCE AND TIME AND CAN BE A POWERFUL TOOL IN THE DIFFICULT AREA OF ENGAGING TODAY'S BUSY PARENTS AND WIDER SCHOOL COMMUNITIES. WE BELIEVE THAT A ROBUST SCHOOL'S EDTECH STRATEGY SHOULD INCLUDE THE CLEVER USE OF TECHNOLOGY AND TOOLS AVAILABLE TO ALL BOTH INSIDE AND OUTSIDE THE CLASSROOM. THE FOUR AREAS BELOW CAN MAKE A REAL IMPACT ON MANY ASPECTS OF SCHOOLS, INCLUDING REDUCING ADMINISTRATION TIME AND IMPROVING STUDENT RESULTS.

HELPING PARENTS AND STUDENTS TO USE HOME-LEARNING SOFTWARE

Much of the variation in student achievement comes from the support they have at home, especially at the very start of their school journey. One way of helping close this gap is for schools to provide and train parents in the use of the best home-learning tools. Embedding the likes of ReadingEggs and MyMaths allows children and parents to develop at their own pace.

REPORTING PROGRESS

Many schools now offer parents extensive access to data held on school management information systems, removing the need for parents to wait for reports or letters home. These are often offered as 'apps' which run on mobile devices rather than online. The option to view homework is particularly welcome in many homes!

RECRUITING BETTER TEACHERS FASTER AND MORE EFFICIENTLY

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LETTING PARENTS 'SEE INTO THE CLASSROOM'

Parental communication tools have also been around for several years, but it's worth looking at how new innovators are

adding greater functionality. This allows parents to access more information about a school and thereby reduce the number of questions they need to ask busy teachers and reception staff. ClassDojo shares class work and the latest news as well as information on behaviour and rewards, while SchoolCal creates an information hub that can share everything from awareness days to things to do in the school holidays.

GATHERING PARENT VIEWS AND FEEDBACK

Parental communication has to be a two-way process, but technology provides an excellent way of gaining feedback from parents. This can be through surveys – many schools use Survey Monkey to poll stakeholders on a regular basis – or by asking specific questions on closed social media groups (Facebook is a good platform for this). The result is that every parent can have their say on new ideas, rather than those who have more time to attend school events.

7 STEPS TO SUCCESSFULLY IMPLEMENT NEW TECHNOLOGY **IN A SCHOOL**

DEPENDING ON THE RESEARCH YOU LOOK AT, UP TO 70% OF TECHNOLOGY PROJECTS CAN BE SEEN TO FAIL – WITH A NEGATIVE IMPACT ON STAFF MORALE AND THE SUCCESS OF FUTURE PROJECTS. WE'VE LOOKED AT THE LESSONS LEARNED FROM OUR OWN SUCCESSFUL PROJECTS AND IDENTIFIED THE MOST IMPORTANT STEPS FOR A SCHOOL TO TAKE WITH ANY EDTECH PROJECT.

1 SET CLEAR GOALS AND MEASURES LINKED TO THE NEEDS OF YOUR SCHOOL

When introducing any new technology, it's really important to focus on what you want to achieve. If you're looking to reduce workload for example, make sure you are tracking how much less time your teachers are spending through using a new app. Starting off by having a clear picture of where you are before rolling out the project, and where you want to be once it's been completed, offers clear metrics to be tracked and measure success as you go.

2 WHO IS GOING TO LEAD? WHO IS THERE TO HELP?

Any change needs someone who has overall responsibility over the project, but also other people who can help in the implementation or simply to offer a second opinion. In a school that might not have a lot of technical support, consider creating 'Teacher Champions' who have a particular interest and expertise in the area being changed, and make sure they have the time to help others.

3 TEST THINGS FIRST IN A PILOT PROGRAMME

Trying to roll a big change out across a large school should be avoided if at all possible. Instead, choose a year group or department where you know teachers are supportive and work with them to develop the benefits and see what snagging issues arise. With the lessons learned, scaling and monitoring larger projects roll out should be easier at this stage.

4 MAKE SURE IT WORKS

One of our key questions at ONVU Learning before we roll out anything new in a school is 'Is it as simple as a light switch?'. If new teaching content doesn't work at the start of a lesson, for example, a teacher will just move on without it, and is unlikely to want to use that solution again. Similarly, if they spend time entering data into an external communication tool and parents or students can't see it, they will rapidly give up. So, make sure you test systems well before implementation and that processes are simplified as much as possible.

5 TRAIN

It's easy to assume that teachers should all be strong at using the latest technology and happy to try new ideas, but the reality is that they're not. Make sure to set aside time, either on INSET days or as part of twilight training, to bring people together to set up and try new systems before they go live.

6 KEEP SHARING POSITIVE MESSAGES

A school is a place where rumours can fly around very quickly and it's easy for negative ideas about new technology to spread. Make sure to stay on top of this by regularly sharing positive news about the new technology, through interviews with your 'champions' or evidence from your pilot departments. Encourage the champions to share their success stories, how the system has improved certain areas of their work, and how they can help their peers to get up to speed with it.

7 REFLECT AND IMPROVE

Although you should be positive externally, you also need to be listening to any negative feedback, especially the constructive ideas from staff to make things better. Make it easy to receive this via email, instant messaging or even just a feedback box in the staff room. .

LESSON OBSERVATION **WITH ONVU LEARNING**

Let's round off the series by looking at how ONVU Learning is uniquely suited to delivering innovative teacher training programmes for your school.

Our solution is simple: using a 360-degree camera, a high definition microphone it records the entire view of a classroom. The recordings are safely stored in the gateway box or in the cloud and are only accessible by or with the permission of the teacher. Our discreet always-on system is entirely focused on helping teachers review all aspects of a lesson.

> [ONVU Learning] has given AUEA staff the capacity to develop their teaching and reflection skills, and the confidence to personalise the learning for the individual.
>
> **DAVID CHAPMAN,**
> **VICE-PRINCIPAL**
> **ASTON UNIVERSITY**
> **ENGINEERING ACADEMY**

1

NO DISTRACTING SET-UP ISSUES

There's no need to set up the system in the classroom at the start of a lesson. ONVU Learning is already set up and always on, so you can always 'go back in time' and take a look at key incidents without planning ahead the recording every time.

2

NO 'HAWTHORNE EFFECT

Traditional lesson observation with a 'person watching at the back' influences the classroom dynamics. With ONVU Learning, observations can be reviewed by multiple observers (with the teacher's permission) at the same time and wherever convenient.

3

A VIEW OF THE FULL CLASSROOM

ONVU Learning uses the latest 360-degree video technology, giving a complete view of a classroom. That allows teachers to zoom in to see how students are responding to tasks, listen to their responses to questioning and even view up to four parts of the room at the same time.

4

TEACHER CONTROL

In all ONVU Learning schools, teachers control access to their footage (except in the case of a serious safeguarding issue). This changes the culture of the school – senior leaders have told us of staff keen to share successes as well as asking for help with specific issues.

5

EASY CLOUD-BASED SHARING

Footage can be stored in the local gateway or in the cloud and can also be shared (with the permission of the teacher) with external experts, for example our specialist coaches, SEN experts in other parts of a MAT or university-based ITT mentors.

__VISIT__ our website to discover more about the benefits of the ONVU Learning solution and how it can help your school!

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CONTACT US

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