



EDUCATIONAL GUIDE CAMERAS IN THE CLASSROOM



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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 →](#)

EDUCATIONAL GUIDE

CAMERAS IN THE CLASSROOM

HOW CAN CAMERA TECHNOLOGY BENEFIT THE CLASSROOM LEARNING EXPERIENCE?

Education is constantly changing and evolving and school leaders are looking to new and innovative ways to improve the learning experience of their students.

Technology is now ingrained into schools every day teaching activities, but it can also play an important role in the development of teachers skills, confidence building and improving school's learning outcomes.

In this guide we highlight the benefits of camera technology in classrooms.

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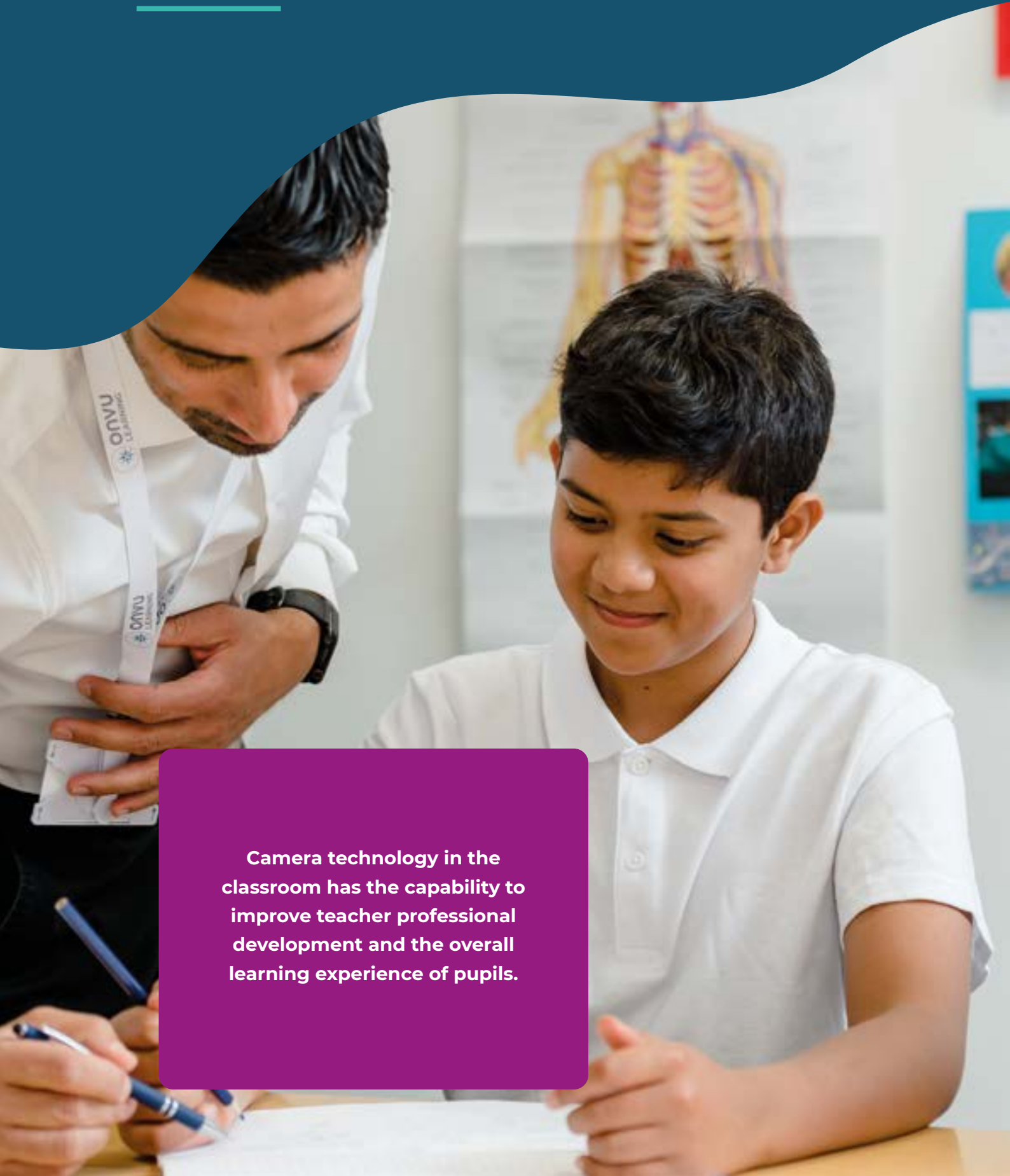
WE'LL COVER:

- 01 **Why use cameras in the classroom?**
- 02 **Moving on from traditional lesson observation.**
- 03 **What is the impact of cameras on teaching?**
- 04 **The future of camera technology in schools**



PART 1:

CAMERAS IN THE CLASSROOM



Camera technology in the classroom has the capability to improve teacher professional development and the overall learning experience of pupils.

WHY USE CAMERAS IN THE CLASSROOM?

THE THOUGHT OF HAVING A CAMERA IN A CLASSROOM, CAN CONJURE UP VARIOUS DIFFERENT FEELINGS FOR SCHOOL LEADERS AND TEACHERS ALIKE, BOTH POSITIVE AND NEGATIVE, AND QUITE RIGHTLY SO. WHEN IT COMES TO OUR CHILDREN'S EDUCATION THEN THE HIGHEST LEVEL OF PRACTICE SHOULD ALWAYS BE UPHELD.

In this ebook we aim to discuss the benefits of camera technology within the classroom and how this can positively impact the evaluation of classroom teaching, assist with teacher development and confidence, and also improve the overall learning experience of pupils, which is, of course, the ultimate aim of all learning institutions.

Without the use of classroom-based video technology, teachers can only at best gain a second-hand impression of their teaching – being wrapped up in the moment of teaching (as it should be) and reliant purely on the thoughts of others for guidance and feedback, such as mentors and third-party observers. This approach to the observation of classroom teaching can often result in the well-known '**Hawthorne Effect**' by which the presence of an observer affects how any lesson proceeds.



Today's video lesson observation technology allows teachers the possibility of 360-degree access to all parts of the classroom. As well as offering teachers the ability to reflect on their own teaching successes and areas for development, it also allows footage to be shared more widely with mentors/coaches of their choosing.



Read our blog on building a lesson bank [here](#).

With the right permission this might mean sharing with a university- or teaching school-based mentor, sharing clips with departmental or phase colleagues, discussing outcomes with peers on a training course, forming part of a '**lesson bank**' for remote learning, or being part of a research study. These lesson banks can be used within schools to inform and develop further Teacher development programs.





IS IT TIME FOR A NEW WAY TO OBSERVE LESSONS?

OBSERVATIONS IN ONE FORM OR ANOTHER TAKE PLACE IN ALL SCHOOLS. RESEARCH SHOWS THAT OVER 40% OF SCHOOLS WERE STILL CARRYING OUT GRADED OBSERVATIONS IN EARLY 2020.

There is an increasing amount of evidence that shows that **lesson observation** can make a real difference to teaching, learning, behaviour, teacher engagement and further enhance professional development for teachers. Schools are now seemingly leaving behind the old ways of approaching lesson observations. Focused on grading systems and process 'tick boxes', lesson observation has primarily been used as a performance management tool with the 'punishment' for teachers not hitting targets often being subjected to further observations.

Leaders are now understanding the benefits of lesson observation outside of these traditional parameters and using lesson observation as a CPD tool, which not only benefits the teachers but also the learning experience of pupils. When viewed through this lens, lesson observation may well be one of the most powerful tools available for CPD.

Lesson observation is an important part of teacher and school development, so how can 360-degree camera technology enhance this already vital school activity? In this next section we discuss how camera technology can positively impact your school's lesson observation capabilities



To discover more about the benefits of lesson observation and how by using modern adaptations it can be used to drive your school forward then read our Educational Guide 'Lesson Observation'



PART 2:

WHAT IS THE IMPACT OF CAMERAS ON TEACHING?

A young girl with dark hair in braids and glasses is looking down at a book. A teacher, wearing a white shirt and a lanyard, is standing behind her, looking at the book. The background is slightly blurred, showing other students and a classroom setting.

“

“We are entering a new phase with many schools changing the way they look at standards, monitor what is happening in the classroom and support their teachers’ continuing professional development.”

**STEPHEN ROLLETT, CURRICULUM
& INSPECTION SPECIALIST, THE
ASSOCIATION OF SCHOOL AND
COLLEGE LEADERS**

”

IMPACT:

COST AND TIME SAVINGS



LESSON OBSERVATIONS TAKE UP VALUABLE TIME FROM SENIOR LEADERS AND MIDDLE MANAGERS, AND IN CASES WHERE ASSESSORS ARE VISITING VARIOUS SCHOOLS, SIGNIFICANT TRAVEL COSTS CAN BE INCURRED.

Lesson observations take up valuable time from senior leaders and middle managers, and in cases where assessors are visiting various schools, significant travel costs can be incurred. If observations are required to be discussed by multiple team members, issues with diary synchronization often occur causing delays, frustration and sometimes inaction. Using camera technology, lessons can be recorded, shared and observed at times that are appropriate to the people involved without the need for everyone to be present in the same place at the same time. Cameras also negate the need for travel between rooms or school sites because observations can be safely and securely viewed and shared across institutions. This enables much time saved in travel, resulting in more observations being able to be carried out over a week and a quicker feedback response.



FROM MONEY AND TIME SAVING TO SUPPORTING AND RETAINING TEACHERS THE ADOPTION OF CAMERAS IN THE CLASSROOM HAS MYRIAD BENEFITS TO SCHOOLS AND WIDER EDUCATIONAL INSTITUTIONS.



IMPACT:

HIGHER QUALITY CONTINUOUS PROFESSIONAL DEVELOPMENT

CONTINUOUS PROFESSIONAL DEVELOPMENT OR TEACHER DEVELOPMENT IS THE PROCESS IN WHICH TEACHERS DEVELOP AND LEARN NEW SKILLS THROUGHOUT THEIR PROFESSIONAL CAREER.

CPD activities can include training courses, coaching, mentoring and whole-school talks and events. Professional development programmes within schools have a profound impact on teachers and pupils alike with research by the **Education Policy Institute** in 2020 concluding that 35 hours of high quality CPD per year was 'almost as effective for improving pupil outcomes as having a teacher with 10 years classroom experience'.

It is widely acknowledged that professional development is instrumental in improving pupil experience and performance as well as impacting teacher performance and retention. This notion was cemented by the Government's Standards for Teacher Professional Development being introduced which highlighted that 'professional development must be prioritised by school leadership'.

CPD greatly improves the classroom experience of pupils and leads to higher performance. Camera technology has the ability to greatly enhance teacher CPD by allowing a 360-degree view of a lesson to garner a true picture of impact

and identify areas for improvement. 360-degree cameras are discreet and unobtrusive, and allow for staff and pupils to be observed from a variety of angles, by staff members outside of the classroom, leaving classes undisturbed. The observed teacher then has the ability to watch their lesson back as part of their CPD activities.

Self-reflection and Mentoring have been identified as important practises within CPD, in this next section we highlight how camera technology can greatly improve their capabilities.



IN A PROFESSION AS COMPLEX AS TEACHING, IT SEEMS OBVIOUS THAT WE SHOULD PROVIDE EDUCATORS WITH ACCESS TO PROFESSIONAL DEVELOPMENT THAT HELPS THEM KEEP IMPROVING THEIR PRACTICE.

JAMES ZUCCOLLO AND HARRY FLETCHER-WOOD

**DIRECTOR FOR SCHOOL
WORKFORCE, EDUCATION
POLICY INSTITUTE AND
ASSOCIATE DEAN, AMBITION
INSTITUTE**





IMPACT: IMPROVED SELF REFLECTION PRACTICES

SELF-REFLECTION IS OFTEN AN ACTIVITY ASSOCIATED WITH TRAINEE AND NEWLY QUALIFIED TEACHERS, BUT BY ENGAGING IN SELF-REFLECTION, TEACHERS AT ALL CAREER STAGES CAN BENEFIT HUGELY FROM SELF-REFLECTION.

The value of reflective practice;

- Better teaching and learning
- Greater innovation in the classroom
- Greater engagement with students
- More engaging lessons
- More confident teachers
- Professional growth

Self -Reflection is a process that can be conducted alone or with support from colleagues, mentors or managers to drive improvement and increase

teacher's classroom confidence. There is considerable risk to isolated self-reflection as poor habits can be reinforced. But with the right guidance, self-reflection on one's own could be powerful.

A main complaint from qualified teachers is that they don't have the time or structure to effectively reflect. So how can a classroom camera help solve this problem in your school?

One of the greatest benefits of the use of cameras within self-reflection is that it can be conducted at a time that suits the teacher. This often means that if reflective practices are not carried out immediately after the lesson, after the lesson, then things can be forgotten or misremembered.

**VISIT OUR SELF REFLECTION
BLOGS →**



Teaching is a demanding profession that requires much time and commitment; it is not always possible to find time to reflect on a class immediately afterwards when another class is waiting right behind. By having classroom observations recorded and securely stored they can be viewed and reflected on at a time that best suits the teacher, allowing for a more impactful and valuable reflective process and better time management. A further benefit of lesson recordings is their ability to be viewed in their entirety or broken down into smaller clips, which can be used by

teachers to demonstrate specific skills that are perhaps linked to a course or school target. Allowing teachers to revisit particular areas for improvement or successes numerous times as part of their personal development goals.

TEACHER INPUT: SELF REFLECTION

Zara Sahota a teacher from Aston University Engineering Academy has told us about how her confidence grows as teacher through self-reflection: “deliberately setting weekly time aside to look back at what has happened keeps it fresh in my mind. This makes me think about approaching things differently as I go into other lessons. The impact of this is that when ‘in the moment’ I think, is there a different way?”

CASE STUDY



[View this case study by clicking here](#)



Self-reflection is a very personal process and during self-reflection teachers can often fall prey to the '**black dot in the white square**' concept described by Headteacher, Chris Hildrew . This is when a teacher will identify on an area that has gone wrong (the black dot) and fixate on that particular incident to the exclusion of the whole teaching story (the white square). This type of thinking can be very damaging to a teacher's classroom confidence and result in positive practices being neglected. The use of classroom cameras allows teachers to see the whole story from start to finish. This holistic approach to lesson observation allows teachers to see points of improvement within the wider lens of the lesson as a whole.

Self-reflection is a deeply enriching practice which benefits teachers and their ongoing development at all stages of their career. If you wish learn more about self-reflection and how it can benefit your school read our blog 'The case for self-reflection in Teaching'



WHEN SOMETHING GOES WRONG, IT'S EASY AND TEMPTING TO FIXATE ON THAT BLEMISH OR BLOT AND SEE IT AS THE WHOLE STORY, TO FEEL THAT EVERYTHING IS BAD JUST BECAUSE OF THAT ONE THING THAT HASN'T GONE TO PLAN.

CHRIS HILDREW (2018)



EXTRA RESOURCE

LESSON OBSERVATION GUIDE

In this Lesson Observation guide we share our research, experience and thoughts on how best practice in lesson observation can drive a school forward, change the culture and improve teaching and learning



[DISCOVER THE GUIDE →](#)

IMPACT: ENHANCED COACHING CAPABILITIES FOR TEACHER TRAINING



Instructional coaching involves a more experienced teacher giving advice and feedback to another teacher to develop their skills.

Instructional coaching involves a more experienced teacher giving advice and feedback to another teacher to develop their skills. This often begins with a defined problem that the teacher wants to address, in order to identify the best way to tackle the issue the coach will conduct lesson observations. As discussed above 360-degree camera technology allows a complete view of the teaching environment. This allows the coach the ability to evaluate a lesson from various view-points around the classroom to understand the full impact of teaching without the need to be physically present or if present, to enable more precise co-reflections. This enables coach and teacher to assess teaching habits, behaviours and current performance to offer more insightful, relevant advice and feedback. This may lead to a range of sub-goals, which is a vital role of instructional coaching.

By being able to watch recordings of the teacher in action they have the capability to share relevant clips, to help their trainees better by understanding their feedback and advice and correctly reflect on their practices.

As coaching can be a time -consuming process, lesson capture technology allows coaches to be able to review the progress of teachers and share feedback at times that better fit their schedules and responsibilities, reducing potential responsibility and calendar clashes and the added stresses that such occurrences can create. By making the coaching process streamlined for all involved, schools have the potential to benefit from better skilled trainees and retaining much valued and respected experienced staff.

TO LEARN MORE ABOUT INSTRUCTIONAL COACHING VISIT [AMBITION INSTITUTE](https://ambitioninstitute.com) →



PART 3:
**THE FUTURE OF CAMERA
TECHNOLOGY IN SCHOOLS**



21ST CENTURY TEACHING STAFF RECRUITMENT



**“THERE ARE NO GREAT SCHOOLS
WITHOUT GREAT TEACHERS ” DFE 2019**

According to the **School Workforce in England Report 2020** the 2020/2021 school year saw 1,098 teacher vacancies across all levels. Teacher turnover has a direct impact on students' learning. Gibbons et al (2021) findings imply the impact of teacher turnover is similar to the impact of student turnover. A mitigation in England, when compared with the USA, for example, is identified as the standard National Curriculum in England, which may make it easier for teachers to switch school. However, when considering today's England education landscape where academies do not have to follow the National Curriculum, negative teacher turnover effects could exacerbate. Gibbons et al. (2021) conclude that teacher turnover effects on student outcomes is **“economically meaningful when compared to other education inputs”**.

Recruitment is changing, and many organisations are now looking to technology to improve their talent acquisition efforts and the education sector is no different. Schools that adopt technology into their recruitment efforts have the potential to make better decisions when hiring. If the right hire is

made from the beginning by following a robust **recruitment and retention strategy** is followed, then it's reasonable to assume that higher rates of teacher retention will follow if the school's teacher development culture is healthy.

Traditional teacher recruitment processes will almost always involve a mock lesson which is observed by at least two members of staff. With a series of interviews with Senior Leaders and Governors to follow, alongside other additional activities such as lesson planning or marking.

Lesson observation is often the starting point and viewed as the most influential stage of the recruitment process, which is understandable, it's vital to know that the candidate has the ability to teach. There are, however, problems that can arise from this process such as, the Hawthorn Effect, unconscious bias of the two observers and miscommunication of feedback to others. The implementation of **cameras within the recruitment process** can help to remove these issues and improve the recruitment process dramatically.





1

HAWTHORN EFFECT

Having two experienced teachers in the room observing a lesson can dramatically alter the dynamic of a classroom. Pupil's behaviour can often be improved as well as creating feelings of nervousness and a reduced likelihood to contribute to the lesson. The use of a discreet classroom camera removes the need for observers to be present in the lesson, this allows the teacher to deliver their lesson in more realistic environment. The observers can then see the true impact of the lesson on the students.

2

UNCONSCIOUS BIAS

Unconscious bias is something that effects all humans and it can often result in unfair decisions being made. By recording the mock lesson, the video can be securely shared with a wider audience for viewing and can be viewed multiple times, ensuing a better diversity of opinion and increasing the chances of a fair assessment of the candidate's capabilities.

3

MISCOMMUNICATION

An assessment of a teacher can be highly subjective, what one observer might view as adequate the other may deem inadequate. Trying to communicate these reasons to other parties can often be difficult leading to confusion and frustration. Video recording technology allows for clips to be shared identifying points at which an observer feel needs further assessment from others, alleviating any potential ambiguity around the candidate's teaching capabilities.



PART 4:

ONVU LEARNING LESSON CAPTURE SOLUTION

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

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.

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.



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.

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.

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, SEN experts in other parts of a MAT or university-based ITT mentors.



VISIT [our website](https://www.onvulearning.com) to discover more about the benefits of the ONVU Learning solution and how it can help your school!





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[BOOK A DEMO](#)

