Technology for employability: FE and skills case studies
S&B Autos Automotive Academy, Bristol: Blended learning at distance

Summary
S&B Automotive Academy, a Bristol-based provider of specialist courses for the automotive industry, has adopted a range of technologies to make its training programmes more effective and efficient. To keep in touch with apprentices in dispersed workshop locations, the academy uses video streaming to conduct meetings, tutorials and assessments. For their part, the apprentices use video to capture evidence for their e-portfolios, and video streaming to provide taster experiences for the next generation of apprentices. Apprentices also have access to online learning materials on Moodle so that no one misses out on the theoretical elements of their course while on placement in the industry. In a significant new development, the academy has also developed cost-effective ways of training apprentices in paint spraying techniques via simulation technologies.

Organisation
S&B Automotive Academy is a medium-sized, work-based learning provider which has recently celebrated its 40th anniversary. The academy provides training in a range of skills relating to the motor trade from maintenance, auto-electrical repair and paint spraying to business administration and parts distribution.
Challenge

A well-known problem in work-based learning is that as much as 85% of an apprentice’s time can be spent on the job, leaving only a limited amount of time for studying background theory and upgrading functional skills. This problem is exacerbated by the difficulty inherent in supporting and motivating students on placement in remote locations. The academy felt that improving learning support for apprentices under these challenging circumstances was essential, as high drop-out rates are lost opportunities both for training providers and students.

Learning in dispersed locations also means time-consuming assessments. Because employers do not want to release apprentices and trainees from their workplace duties, tutors have to travel to individual workshops to complete paper-based assessments. As a result, the academy was also looking for ways of recording and assessing apprentices’ progress that would be both more efficient and more illustrative of student competences.

Making it happen

S&B Automotive Academy turned to some of the most up-to-date technologies to address these issues.

The first step was to harness technology to improve the academy’s recruitment processes. As companies in the automotive industry place a high value on finding applicants who can thrive in the workplace, a key goal was to attract the right young people. Video streaming has proved to be the solution. The academy uses live video links to enable apprentices to present to pupils in school interested in apprenticeships in the automotive industry. The immediacy of the presentations has given potential applicants a better chance to understand the standards the industry sets, and what work-readiness means. Having it explained by an apprentice only a few years older than themselves adds power and authenticity to the message. In addition, discussions between pupils and apprentices following the presentations have helped the academy identify recruits with the right attitude:

“Good timekeeping and presentability are important attitude skills. Apprentices are left in absolutely no doubt about the nature of the work environment and the expectations placed on them. The fact that the apprentices who talk to schoolchildren online are [only] a few years older has an effect in helping students acquire an understanding of the attitude and
maturity needed to be work ready. So far 1,250 students have attended an apprenticeship talk.”

Jon Winter, CEO, S&B Automotive Academy

Video streaming has also enabled apprentices to interact in real time with their teachers in Bristol to provide more support with the theoretical elements. Although apprentices can attend some classes at the academy, Moodle, the academy’s virtual learning environment (VLE), is available to support their studies at all other times. Learning materials are available for some 1500 online modules on different sections of the motor trade. Through the VLE, tutors and administrators also keep an accurate audit of apprentices’ attendance, contribution to learning activities and completed assignments.

Alongside the VLE, web cameras and video links have proved some of the most effective ways of improving learning in the workshop environment. Apprentices make frequent use of video capture in the workshop to demonstrate their competences for assessment. Digital video captured on a mobile phone enables this to occur on the fly, and recording a voiceover can demonstrate still more detailed knowledge and understanding. These short videos bring an extra dimension to apprentices’ e-portfolios; it is easier to capture evidence of soft skills such as teamwork and attributes such as willingness to take instruction. Being able to demonstrate these additional qualities can be critical for apprentices making the transition into full-time employment.

Technology

Building on its use of VLE and video streaming technology, the academy has now introduced augmented and virtual reality software to help apprentices gain basic skills and practise safety protocols in paint spraying before attempting to do so for real. Each episode of this immersive workshop experience provides data on students’ abilities. That information can be shared with students, and skills such as muscle memory, accuracy and dexterity can be developed and assessed much more quickly.

Impact

Use of technology has made a substantial difference to the cost effectiveness of the academy’s work. This has been achieved in a number of ways:

» By using virtual and augmented reality, the academy has reduced the time allocated to training apprentices in paint spraying techniques from two days to ten minutes. This represents cost savings of at least £13,000 per annum in terms of teacher time and consumables such as paint
Video streaming directly to students in school has enabled potential apprentices to be better informed about their choice of career, improving recruitment and reducing drop-out rates. Because of the academy’s focus on attracting the right candidates, 99% off apprentices now progress to the advanced programme.

During an apprenticeship, video capture on a mobile combined with learning materials on a VLE keeps motivation high by providing immediate, rewarding opportunities for learning and assessment.

Demonstrating skills via video, including soft skills, adds richness to the apprentices’ e-portfolios and facilitates transition into sought-after employment with companies at the forefront of the motor trade.

Find out more

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