# Digital student exemplars
## Enhancing the digital experience of students

This case study is relevant to the digital student challenge:

## Deliver a relevant digital curriculum

## Video learning for engineering apprentices

Level two and three engineering apprentices at **PETA training and consultancy services** are benefitting from the use of contextualised videos to demonstrate how the latest equipment is being used by employers in the engineering industry.

Staff are being trained to create the videos and interactive activities using tablet devices. They are using **Quick Response** (QR) codes and augmented reality software to provide easy access to the resources which are available to students via 'hot spots' within workshops areas.  This allows learners who are stuck or who lack confidence in carrying out practical work to help themselves by referring to training materials and to move beyond their 'sticking point' without always having to refer to an instructor.

The project is also exploring the issues involved in providing access to technologies in an operating environment that can be noisy and dirty and where mobile phones can sometimes be regarded a distraction and a cause for concern in terms of health and safety.

Examples of how the technologies are being used to support learners include:

» Augmented reality and QR codes to facilitate easy access to the videos from hotspot locations and to show learners pictures of different makes and models of machinery they may encounter in the workplace

» Gamification[1] applications such as **Blubbr** to create video resources with inbuilt quizzes and accessible captions and **Quizizz** to create multi-player quizzes accessible via personal mobile devices.  One example of how these resources are used is to recap prior learning on what tool to use for any given task before learners start a practical workshop activity using machinery

» Creation of video tutorials to explain trigonometry, something students often struggle with but is an essential skill

» The lesson tool in **Moodle** is helping instructors to create learning resources with in-built assessment activities and to make these available to students for revision and recap outside of the training environment

» Instructors have received training on the accessibility features of tablets so they can demonstrate these to students.  An example of this is to use the inbuilt reading function to speak content and to conduct voice-generated searches

[1] Gamification – the use of thinking approaches and designs usually applied to games used in non-game settings

Employers are being encouraged to reinforce the learning in the workplace and also to add to the bank of resources. It is hoped that further resources will be developed in a partnership with students at the University of Portsmouth.

The project is ongoing but early feedback from learners indicates that they are enjoying the interactive resources and finding them engaging.

**This project is part of the learning futures programme, commissioned and funded by the Education and Training Foundation.**

# How does this meet the challenge?

» Engineering is a key subject within the STEM (science, technology, engineering and mathematics) agenda. Using technology to motivate learners in this way provides responsive support as well as making the learning process more engaging

» Involving employers in curriculum design ensures the curriculum remains relevant and reflects latest industrial practice as well as helping to enhance employability

» It was important to ensure that the environment could support use of technology within the workplace setting. In this case, a wireless network that was capable of accommodating instructor and student use was developed and part of the project involves exploring the issues about use of learners' own devices

» The approach being developed has potential for scaling-up and offers a model that could be replicated in other settings

# Industry/professional relevance Find out more:

The learning futures programme: **Video learning for engineering apprentices**

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