

The Future of Post-16 Qualifications

Education Select Committee

Ufi VocTech Trust Consultation Response

20 January 2022

Executive Summary

1. The future of the UK's education system needs to be considered in its entirety. The importance of a high calibre and digitally advanced post-16 education system, which has at its core vocational and informal learning, must not be overlooked.
2. Providing the right skills and qualifications in an effective and cost-efficient manner is critical for UK competitiveness and productivity. The digital tools and technology that Ufi VocTech Trust supports present an effective way to develop and deliver the post-16 skills and qualifications that the UK needs.
3. Technology that enables learning and assessment must be embedded throughout vocational education. Contextual learning, digital credentialing and innovative assessment methods will be central to both re-skilling the existing workforce and developing the skills of future generations.
4. The UK's education system must integrate the importance of vocational education and the potential for technology to improve outcomes for learners, employers, and the UK as a whole.

Key Points

- Technology allows for **better assessment** by allowing qualifications to adapt and provide students with new and effective methods of assessing their skills. When a qualifications pedagogical approach has technology at its core, the bespoke problems of an industry or area of study can be addressed with a more adaptable and suitable result achieved for learners.
- Very few learners can demonstrate their skills through one means of testing and because technology offers a greater range of options it can provide **better access** to all qualifications. While the circumstances of each learner and area of study are specific, technology has the capacity to overcome challenges of access in general.
- Post-16 qualifications need to maintain their relevance to learners, and technology has the capacity to create a system of **better accreditation** which can increase the number of ways a student can prove what they have learnt. Technology makes accreditation more relevant to learners and their future employers, all whilst maintaining the highest levels of security.

Recommendations

5. Focus on vocational education and the future workforce – bring together industry and education through better use of digital technology to develop and deploy the post-16 qualifications and vocational skills the UK needs.
6. Mandate some degree of digital delivery in all vocational and adult learning, with recognition and reward for the adoption of technologies that improve learner outcomes.
7. Ensure that teacher training and CPD is designed to equip the education workforce with the understanding and skills to utilise technology that supports learners.

Introduction to Ufi VocTech Trust

8. Ufi is an independent charity. Our aim is to help improve vocational skills in the UK's workforce by funding digital solutions for vocational learning. We do this by providing funding and expertise to organisations developing and deploying tech for use in adult vocational education.
9. We are a charity which has provided over £20m to over 200 organisations, developing technology and digital tools for adult learners. In the last year, we have supported over 100 organisations with £2.1 million in grant funding and over £1.5m in venture investment.
10. We believe that people should be able to learn new skills throughout their adult lives, and that learning skills for work can be transformed when supported by technology.
11. Our practical experience, earned through grant funding projects and investing in new businesses, shows us that digital technology can help tackle these challenges by helping to improve how post 16 qualifications are developed, delivered, and assessed.
12. With the UK facing an unprecedented skills crisis, we know that technology has the capacity to improve how adults across the country get the skills they need for work.

Consultation Response - *The strengths and weaknesses of the current system of post-16 qualifications, with reference to A Levels, T Levels, BTECs and apprenticeships, in preparing young people for work or further and higher education.*

13. The strengths of the current system are shown every year when some students get the grades they want to go on to their desired work or further study. However, the current system leaves many behind, and inadequately serves many others. A focus on academic qualifications over vocational and directly work relevant skills narrows the choices that many students have, diverting some young adults away from a more appropriate and fulfilling career path, which benefits neither learners nor employers.
14. The technology and organisations that Ufi VocTech Trust supports demonstrate how well-designed vocational qualifications can offer students an alternative path directly into better work. Our consultation response will focus on addressing three key weaknesses of the current system of post-16 qualifications which can be addressed by the broader deployment and development of technology.
15. For far too long prioritising processes, methods, and timetables, rather than the specific needs of learners or employees has meant that the current system of post-16 qualifications cannot adapt to the needs of students and employers. As a result, the current system of post-16 qualifications serves to compound the fact that over half of adults have not participated in learning in the last 3 years¹, a trend that is only getting worse. Firstly, the current system of A-level, T-Level, BTEC and apprenticeship assessment is too reliant on traditional tests that assess a student's ability to write and recall. Secondly, these traditional forms of assessment detrimentally effect those learners furthest from traditional provision - including learners who are geographically, economically, or socially isolated, and more recently those who are unable to attend exams because of requirements to isolate. Thirdly, the dominant system for accrediting a student's learning (paper certificates of exam results) does not meet the needs of students and employers, who are often left unable to prove the specific skills that a learner has developed.

¹ *Adult Participation in Learning Survey 2021*, Learning and Work Institute, November 2021, [link](#)

16. The projects that we have supported at Ufi VocTech Trust show how these weaknesses can be ameliorated with technology. By doing more than moving assessment online or allowing students to complete an exam with a laptop, our projects demonstrate how technology has the capacity to improve post-16 qualifications by increasing the flexibility of assessment and accreditation.

Better assessment

17. One of the biggest challenges facing post-16 qualifications is the quality of current assessment methods. The present options to demonstrate skills and learning are so narrow, students studying non-academic subjects are left at a disadvantage. Technology can offer a broader choice of methods² for learners to demonstrate their skills; offer authentic environments through simulations³ and augmented and virtual reality⁴; enable learners in the workplace to efficiently demonstrate their skills; and provide online versions of exams where learners have access to appropriate content that simulates the type of analysis and decision-making that happens in the workplace⁵. It is technologies capacity to be tailored to individual subjects, circumstances and qualifications that give it the ability to improve assessment.
18. For example, Ufi is supporting the TimberTED⁶ project, at Edinburgh Napier University Development Trust, which is demonstrating the power of technology to improve assessment in the offsite timber construction industry. There is an acute shortage of people with accredited skills in offsite timber construction. Current qualifications don't yet match industry innovation, with many learners and professionals unaware of the new technical knowledge and skills needed for the manufacturing-line approach to building. The TimberTED project is providing construction students and professionals with online flexible training modules to upskill and gain a recognised, accredited qualification with a bespoke digital assessment tool. Similar tools used throughout post-16 qualifications and suitable for further education and employers delivering in-house training have the capacity to enhance existing CPD and improve formal qualifications.
19. While the specific challenges of the offsite timber construction industry are niche, the TimberTED project demonstrates technology's ability to adapt and provide students with new and effective methods of assessing their skills. It is by applying a pedagogical approach which has technology at its core, that the bespoke problems of an industry have been addressed with a more adaptable and suitable result achieved for learners.

Better access

20. People who do not excel in the traditional forms of assessment⁷ are often most affected by the current system of post-16 qualifications⁸. This might include learners who are dyslexic, are demotivated by the common assessment practices, don't see themselves as academically gifted and lack the confidence to take up vocational education, or it may include learners who are

² *8 Ways in which EdTech supports Vocational Education*, NeoLMS, July 2021, [link](#)

³ *What is simulation-based education?* University of St. Augustine for Health Sciences, 2016, [link](#)

⁴ *Case Study on Virtual Reality in Construction*, Californica Polytechnic State University, 2017, [link](#)

⁵ *The use of technology in assessment of vocational qualifications*, Qualifications Wales, March 2020, [link](#)

⁶ *Timber Technology Engineering & Design (Timber TED)*, Ufi VocTech Trust & Edinburgh Napier University Development Trust, [link](#)

⁷ *Setting them up to fail? Post-16 progression barriers of previously disengaged students*, Edge Hill University, May 2017, [link](#)

⁸ *Moving on from initial GCSE 'failure'*, University of Aberdeen, February 2021, [link](#)

physically unable to attend exams for any number of reasons. It also includes many learners for whom it is difficult to find a specific and identifiable challenge, where there is no easy box to tick. What we know from our experience of funding projects is that the key to addressing challenges of access is to take an approach that gives students as many options as possible. We know that any system that restricts the ways a student can present and prove what skills they have developed is one that is going to exclude people who do not excel in traditional assessment. Well-considered integration of technology is essential to successfully delivering a variety of assessment options that can allow for greater and more diverse access to all forms of post-16 qualifications.

21. As part of Ufi's response to the Covid-19 outbreak, we funded a range of projects that looked at tackling the challenges that learners were facing as a result of the pandemic. This included funding a project with Open Awards⁹ to scale up remote invigilation of controlled assessments for functional skills. This project sought to reduce the disadvantage to learners and apprentices who were unable to attend school, college, or training providers in summer 2020. Thanks to an innovative use of screen sharing technology, learners were able to sit assessments while isolating at home and being monitored by a trained invigilator.
22. In addition to challenges of physical access to qualifications, there are also the confidence barriers that deter many learners from improving their skills. To that end, we have provided £1.5 million in grant funding to help organisations developing innovative technology that supports learners with a lack of confidence and who are most at risk from economic and digital exclusion. One project which received funding is being run by CENTURY Tech¹⁰, who are using AI to provide colleges with tailored interventions for students struggling with English and Maths GCSE resits. Digital tools can provide FE colleges with support that can help every student by instantly addressing gaps in knowledge, remedying misconceptions, providing resources to teachers, and supporting students in overcoming a lack of confidence.
23. Our projects show that by offering a greater variety of assessment options problems that prevented access in different circumstances are possible to overcome. Problems that rendered most exams impossible to run in 2020, can be overcome by the innovative application of technology and problems of learner confidence can be tackled with the right digital tools. While these circumstances are specific, technology can offer assessment the capacity to overcome problems in general.

Better accreditation

24. Technology allows for a wide array of accreditation methods, whether that includes using micro-credentialling and digital badges to reward the development of specific skills, or the use of blockchain to improve the connection between learner and their award. However, most student learning is still accredited with paper certificates. This lack of variety can be addressed with technology and by allowing for a greater range of accreditation options the reliability and relevance of qualifications can be improved. Firstly, by increasing the learner's ownership of their qualifications they can securely follow them throughout their lives. Secondly, by allowing for the accreditation of specific skills, rather than whole syllabuses of learning, qualifications are more relevant to the student and employer.

⁹ *Functional Skills – Home Assessments*, Ufi VocTech Trust & Open Awards, [link](#)

¹⁰ *Ufi Awards £1.5m grant funding to help level up learning for those most impacted by the digital divide*, Ufi VocTech Trust, November 2021, <https://ufi.co.uk/latest/ufi-announce-offers-of-voctech-challenge-funding/>link

25. A Ufi funded project with the City of Glasgow College¹¹ is developing a blockchain based method of reliable and verifiable digital certification. Records are held and controlled by learners and can be used to prove to future employers what specific assessments they have passed. This allows the qualifications to maintain their relevance to students while also ensuring even higher levels of security. This project also looked at the inclusion of micro-credentials, which can allow for small scale skills development to be tracked and accredited as part of larger units of study. These more specific, and often work relevant skills can then be reliably proven to future employers.
26. A system that relies on paper certificates is likely to find itself increasingly out of date, both in terms of security and learner relevance. Technology has the capacity to increase the ways students can prove what they have learnt, making it more relevant to them and their future employers, whilst maintaining the highest levels of security.

Conclusion

27. The current system of post-16 qualifications offers a far too acute focus on academic qualifications rather than supporting learners to develop and prove their vocational, work relevant skills. The projects that Ufi VocTech Trust has supported show how technology can be successfully integrated into vocational learning and offer students a greater range of tools to succeed in work.
28. The academic literature shows that the current system of post-16 qualifications narrows the options available to students, leaving them further from gaining the skills they need for work. These weaknesses in the current system can be addressed with the innovative deployment and development of technology. As the Education Select Committee looks at the future of post-16 qualifications, we want it to understand the critical role technology needs to play in developing a post-16 qualifications system that works for learners, employers, and society. Without qualifications that offer students as wide a range of choices as possible, they will never reflect what most students are capable of.

Key Points

- Technology allows for **better assessment** by allowing qualifications to adapt and provide students with new and effective methods of assessing their skills. When a qualifications pedagogical approach has technology at its core, the bespoke problems of an industry or area of study can be addressed with a more adaptable and suitable result achieved for learners.
- Very few learners can demonstrate their skills through one means of testing and because technology offers a greater range of options it can provide **better access** to all qualifications. While the circumstances of each learner and area of study are specific, technology has the capacity to overcome challenges of access in general.
- Post-16 qualifications need to maintain their relevance to learners, and technology has the capacity to create a system of **better accreditation** which can increase the number of ways a student can prove what they have learnt. Technology makes accreditation more relevant to learners and their future employers, all whilst maintaining the highest levels of security.

¹¹ *Blockchain, Badging, and ePortfolios for Skills*, Ufi VocTech Trust & City of Glasgow College, [link](#)