

Response from the Royal Society of Biology to the Education Select Committee inquiry into the quality of apprenticeships and skills training

5 January 2018

The Royal Society of Biology (RSB) is a single unified voice for biology: advising government and influencing policy; advancing education and professional development; supporting our members, and engaging and encouraging public interest in the life sciences. The Society represents a diverse membership of individuals, learned societies and other organisations. Individual members include practicing scientists, students at all levels, professionals in academia, industry and education, and non-professionals with an interest in biology.

The RSB welcomes the opportunity to comment on the Education Select Committee's inquiry on the quality of apprenticeships and skills training. This response focusses on the quality of current provision; impact on learner outcomes and associated barriers; and comments on the interaction between current provision and life sciences trailblazer and T levels. We are pleased to offer this response, informed by comments from our Education and Training Policy Committee and Employer Advisory Group.

1. Higher level and degree apprenticeships have been welcomed as a route with the potential for producing highly skilled people to support STEM industries. However, for these technical routes to be successful, there should be parity across academic and vocational pathways, with degree apprenticeships seen as equivalent opportunities which do not limit future career opportunities. Employers must recognise technical qualifications as equal to those gained by taking the alternative academic route.
2. The capacity of stakeholders, such as professional bodies, has been constrained in the development of degree apprenticeships so far, with current standards developed by employer groups as part of trailblazers. There should be greater engagement with the relevant communities through the professional bodies representing them, to benefit the current apprenticeship standards and those being developed in specific STEM subject areas. Input should be sought from the relevant professional bodies throughout the stages of development of the standards, to help ensure consistency and rigour across standards. For example, within the biosciences, areas such as the microbiology content and lab skills required as a Food Industry Technical Professional; scientific principles of investigation and technical skills used by Healthcare Science Practitioners; and an understanding of the functions of the human body, physical and mental health needs and pharmacology in a nursing degree apprenticeship. Input from professional bodies on the development of standards, including involvement in developing end-point assessments, is already underway in disciplines including engineering. There should be similar expectations of input from professional bodies across STEM.
3. The current provisions for apprenticeship and skills training in the biosciences are varied. The accreditation of bioscience programmes within the further education and training provider sector would help to raise the standards of apprenticeships and skills training. Accreditation by the Royal Society of Biology recognises and

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supports the advancement of skills and education in the biosciences, throughout the UK and internationally. Graduates from accredited degree programmes are equipped with well-rounded knowledge and skill sets, making them highly employable both within and beyond their chosen field. Technical and vocational routes at all levels would benefit from a similar external accreditation review. As detailed in the RSB's response to *Economics of Higher Education, Further Education and Vocational Training*¹ inquiry, initial work is being conducted by the Society in this area, however the support of Government funds for the accreditation of FE bioscience programmes would enable accreditation processes to launch on a greater scale and have a wider impact.

4. As previously recommended in our response to *Closing the STEM skills Gap*² and the BEIS consultation on Building our *Industrial Strategy*,³ we believe that to meet the demand for a highly skilled bioscience workforce there must be ongoing training and upskilling of the current workforce. Employers should be encouraging employees at all levels to work towards professional registration, allowing them to demonstrate continuing professional development. The RSB, licensed by the Science Council, offers Registered Science Technician (RSciTech) status, which offers recognition for the technical profession and demonstrates individuals meet and maintain the high standards expected of our organisation as a professional body. The RSB also provides routes to progression to higher awards through Registered Scientist (RSci), Chartered Scientist (CSci), and our own professional register Chartered Biologist (CBiol).
5. Trailblazers, such as the Life Sciences and Industrial Sciences trailblazer, are integral to the development of high quality standards however there is a lack of consistency in the processes, review and engagement across the range of trailblazer groups. As the Institute of Apprenticeships and Technical Education establishes itself, the Institute should ensure the current trailblazer groups are reviewed, identifying areas of best practice and eradicating any dysfunctionality. Professional registration is a good marker for individual employees to point to their professional expertise and ongoing learning and development, where appropriate registers exist all future standards should be mapped to relevant competency levels.
6. As highlighted in our response to the *Economics of Higher Education, Further Education and Vocational Training* inquiry, the links between employers and education and training providers must be supported to ensure that work placements meet the needs of both students and employers, equipping students with the skills required for longer term employment in their chosen sector.
7. The RSB welcomes the recent detail set out as part of the Department for Education's Implementation of T level programmes consultation. While our response to that consultation will detail our thoughts on the principles and delivery of T levels, it is important that the interaction of these new 16 – 19 qualifications is considered during reviews of current apprenticeships and skills training provision.

¹ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/economic-affairs-committee/the-economics-of-higher-further-and-technical-education/written/69983.pdf>

² <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee/closing-the-stem-skills-gap/written/45123.pdf>

³ https://www.rsb.org.uk/images/article/policy/RSB_response_to_BEIS_consultation_Building_our_Industrial_Strategy.pdf