

## Wolf Review of 14-19 Vocational Education – Call for Evidence

A response from the Society of Biology to Professor Alison Wolf

22<sup>nd</sup> October 2010

The Society of Biology 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 of Biology is committed to promoting biology as a subject of choice to students in schools, colleges and universities. We support and recognise excellence in biology teaching; champion a biology curriculum that challenges students and encourages their passion for biology; support young scientists through higher education, and provide career guidance at all levels. We offer a range of tools to assist our members working in education in their professional development, we respond to education policy consultations, and contribute to curriculum development and course accreditation. Through partnership with other leading science organisations, we aim to increase our influence over the advancement of biology education.

The Society represents a diverse membership of over 80,000 - including practising scientists, students and interested non professionals - as individuals, or through the learned societies and other organisations listed below.

As a member organisation of the SCORE partnership, the Society of Biology has also contributed to, and supports, the response from SCORE.

### Summary

The Society of Biology welcomes this review and the opportunity to comment on it.

The Society of Biology believes that principles for good qualifications development include: a clear understanding of what the qualification is measuring and being used for; a clear vision, purpose and target audience; an understanding of how qualifications are perceived by society e.g. most jobs require English and mathematics GCSE at C grade as these are perceived as a universal indicator of minimum qualifications required for employment; a process for piloting and evaluation qualifications; and finally that qualifications need stability and therefore changes should be evolutionary rather than revolutionary in order to develop confidence in the 'currency'.

We therefore recommend that:

- Qualification development should be uncoupled from political cycles and developed in full consultation with all stakeholders with provision made for piloting and evaluation. Moreover, it is essential that curriculum and qualifications, particularly for those in school, are no longer reviewed in a piecemeal fashion.
- The esteem of vocational qualifications should be enhanced through regulation, allowing realistic equivalence values. At the same time, a widened set of school performance measures should rely less on individual performance measures.
- The Wolf review should consider whether the number of GCSEs that can be counted in the school accountability system is capped at a lower threshold thereby opening up opportunities for students to experience a greater range of learning opportunities.

- By the age of 16 years all students should have had the opportunity to experience vocational learning and short taster routes should be made available to pupils in Year 7 and 8 to allow students to make informed decisions about the appropriate learning style for them.
- Information, Advice and Guidance for young people must be targeted, well-informed and non-biased and include examples of both vocational pathways and the more traditional academic routes.
- Ofqual must ensure equivalence between academic and vocational qualifications to establish clear progression routes for learners and for employers.

### **Arrangements for developing qualifications**

Stakeholder engagement is of utmost importance when developing new or redesigning qualifications and the Society of Biology strongly believes that any qualifications, including vocational qualifications, should be developed in consultation with the full range of subject specialists, teachers, employment sectors and HEIs. Vocational qualifications must provide a pathway that develops a student's technical skills in a way that employers and/or HEIs will find useful.

We also believe that any qualification development process needs to allow sufficient time for developing, piloting and evaluating the specification, its delivery and assessment and therefore qualification development should not be affected by the political cycle.

*Recommendation: Qualification development should be uncoupled from political cycles and developed in full consultation with all stakeholders with provision made for piloting and evaluation. Moreover, it is essential that curriculum and qualifications, particularly for those in school, are no longer reviewed in a piecemeal fashion.*

### **Institutional suitability, accountability and incentives for Vocational Education for 14-19 year olds**

Vocational qualifications have in the past been given nominal equivalence criteria to fit the National League Table guidelines but this has resulted in these courses been viewed as second rate in comparison to traditional qualifications such as GCSEs and A Levels. Reducing or removing equivalence values alone will not solve anything, but may simply shift learners wholesale into the wrong type of courses for them, and this review must counsel the Department for Education against an over-reliance upon it. There must be an independent, evidence-based review of the measures of school performance to look at removing the distortion of the market in 14-19 qualifications caused by the current metric.

*Recommendation: The esteem of Vocational Qualifications should be enhanced through regulation, allowing realistic equivalence values. At the same time, a widened set of school performance measures should rely less on individual performance measures.*

Current successful vocational qualifications (e.g. BTEC and OCR National) should be kept but made compatible for use as a stepping stone into Apprenticeships, jobs or further study. This could be achieved by introducing Subject Criteria for use in accreditation by Ofqual that would be set adhering to the principles of good qualification development mentioned previously. One suggestion might be to categorise these qualifications as Vocational GCSE (VGCSE) or Vocational A Level. The intention would be to preserve successful models while ensuring consistency both between Awarding Organisations and over time. In the first instance existing specifications must be allowed to continue for the duration of their current approval period and beyond if need be. Ideally new Criteria would neither depart dramatically from successful current qualifications nor be rushed to fit artificial or political timescales. Professional bodies and employers should be encouraged to contribute to ensure that relevant Vocational A Levels (branded for example as BTEC Vocational A Level) would also fit the requirements for the Technical Certificate components of Apprenticeships.

League tables are a major influence on how schools operate with regards to the qualifications offered to students; one possible solution that we would like to suggest should be taken into consideration would be to limit the number of GCSEs that can be used for accountability purposes within the school system thereby freeing up time and opportunity for students to study alternative qualifications or additional GCSEs dependant on the ability and aspirations of the student.

*Recommendation: Consider whether the number of GCSEs that can be counted in the school accountability system is capped at a lower threshold thereby opening up opportunities for students to experience a greater range of learning opportunities.*

### **The role of the third sector, private training providers, employers and awarding bodies**

As already mentioned we strongly believe that stakeholder engagement is of utmost importance and any qualifications, including vocational qualifications, should be developed in consultation with the full range of subject specialists, teachers, employers and HEIs.

We also acknowledge the huge part that work based opportunities and volunteering placements can play in providing students with opportunities to experience the world of work. Currently, the school work experience programme typically focuses on a one or two week period in the school calendar during which schools are keen to send most of their relevant year pupils for a placement. However, this places an enormous burden on employers to provide a large number of placements over a short timescale and we would suggest that there would be merit in reviewing the purpose, process and structure of how work experience is managed. Additionally there should be incentives for employers to offer these types of opportunities to young people and encouragement for students to take them up. One possible solution could be to work with the appropriate Professional Body and Awarding Organisations to accredit the volunteer/work placement. One example of this in practice is the HE Active Community Fund ([www.heacf-awards.ac.uk](http://www.heacf-awards.ac.uk)).

Awarding Bodies are commercial organisations, and therefore face the paradox of developing demanding qualifications which provide progression, and also qualifications which are sufficiently 'passable' that schools and young people wish to undertake them. The effect of negative market forces on qualification development should not be underestimated and we would welcome a full and frank review of the curriculum development landscape that takes into account both academic and vocational qualification development and the incentives for Awarding Organisations to develop appropriate specifications for progression to all career pathways.

### **What is the appropriate target audience for a vocational education offer, and in particular from what age is it appropriate for young people to be engaging in vocational education?**

Many young people can gain a great deal from vocational education, but the extent to which vocational qualifications are appropriate varies individually. The sheer variety of the audience of learners dictates that there should be a menu of options available, and the young age at which they may be taken dictates that it be should possible to undertake a bespoke mixture so as not to limit later choices. We recognise that students may wish to change from a vocational pathway to an academic route later in their education and vice versa therefore any route, be it academic or vocational in nature, must allow learners to switch pathways at appropriate stages.

Vocational qualifications offer students an opportunity to learn through a more practical and hands on approach and we would argue that all students of all abilities would benefit from some experience of this learning style. The National Curriculum at Key Stage 3 should be revised to require an element of vocational learning without specifying content. Schools could then be free to offer what is appropriate to their own learners, but all should be given the opportunity to decide whether they have benefitted from a different style of delivery rather than guessing as to whether they might.

*Recommendation: By the age of 16 years all students should have had the opportunity to experience vocational learning and short taster routes should be available as young as year 7 and 8 to allow students to make informed decisions about the appropriate learning style for them.*

### **The principles to underpin content**

For vocational qualifications to be worthwhile for the learner and the economy their content must be both up-to-date and relevant to downstream employment. A system without a built in safeguard of the quality of content is likely to result in some areas only being served by one qualification where any revision may be under resourced. In order to guarantee that content is both up-to-date and relevant, an enhanced regulatory remit for Ofqual to approve the quality of qualifications with regard to the design rather than content, (such as alignment of content and assessment to outcomes) should be complemented by a requirement for the involvement and approval of the most appropriate sector and subject specific bodies. These could be professional institutions, chartered bodies, professional licensing authorities, licensed Sector Skills Councils or sector skills bodies, and in the event of contention over which bodies are appropriate either Government or Ofqual could act as arbiter.

*Recommendation: When developing vocational qualifications there must be thought given to future proofing the content and skills covered allowing a mechanism for current developments to be incorporated into the teaching without major revisions to the criteria.*

The role of each organisation should be clearly stated at the start of the development process and any sign off procedures should be mutually agreed. There are a vast number of vocational qualifications already in the public domain and this can place a huge burden on Professional Bodies' time and resources when commenting on draft content and specifications for existing or new qualifications therefore careful consideration must be given to the role and responsibilities of each stakeholder.

### **How can we improve progression from vocational education to positive destinations (work, Apprenticeships, FE, HE)?**

There should be clear progression options from individual qualifications, such as those established routes from GCSE to A-level. However, progression from 14-16 to 16-19 relies on local, not national, availability. This issue is highlighted very clearly in traditional qualifications such as GCSE science, where A-level physics is not available about 500 schools and colleges. Similarly, many existing vocational and applied science level 2 qualifications do have follow-on level 3 qualifications, but these are often not available to students. The level 2 qualifications then essentially become dead ends, with no progression possible. Hence mechanisms to ensure local provision of a sequence of qualifications are important.

Science vocational qualifications should be aimed at learners aspiring to a particular science-related job or profession or a relevant degree pathway. It should focus on equipping learners with work-related skills, strong learning motivation and a career plan. The Information, Advice and Guidance (IAG) that students receive when choosing between particular qualification routes should be honest about the pathways that the qualification closes off as well as the pathways that remain an option.

*Recommendation: Information, advice and guidance for young people must be targeted and include examples of both vocation pathways and the more traditional academic routes.*

*Recommendation: Ofqual must ensure equivalence between academic and vocational qualifications to establish clear progression routes for learners and for employers.*

Finally, we recognise the value of STEM Ambassadors, who go into schools to share their experiences of studying science or engineering and working in these fields. Ambassadors from industry have a key role in bridging the link between schools and the world of work and we would encourage this review to consider the role of Ambassadors in promoting vocational routes and destinations as a positive career pathway.

We gratefully acknowledge the specific contributions of a Task Force (Chair: Professor Michael Reiss, Institute of Education, with contributions from Professor Joy Hinson, Society for Endocrinology and Queen Mary University; Dr David Bassett; Mrs Sarah Jones, ABPI. As well as contributions from the Association of Applied Biologists, AstraZeneca, Biochemical Society, Pfizer, and the Royal Agricultural Society among others.

The Society of Biology is pleased for this response to be publicly available and will shortly place a version on [www.societyofbiology.org](http://www.societyofbiology.org). For any queries, please contact Rachel Forsyth, Society of Biology, 9 Red Lion Court, London, EC4A 3EF. Email: [education@societyofbiology.org](mailto:education@societyofbiology.org)

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