



Vocational Education

SCORE's response to the Wolf Review of 14-19 Vocational Education

October 2010

About SCORE

SCORE is a partnership of six organisations, which aims to improve science education in UK schools and colleges by supporting the development and implementation of effective education policy. The partnership is currently chaired by Professor Graham Hutchings FRS and comprises the Association for Science Education, Institute of Physics, Royal Society, Royal Society of Chemistry, Science Council and Society of Biology.

Summary of SCORE's response

The SCORE partnership welcomes the opportunity to submit evidence to the Wolf Review of 14-19 vocational education. SCORE's submission to this review focuses on principles for qualification development. Many of these are common to all qualifications. This submission draws on the partners' experiences and expertise in supporting qualification development.

In summary, principles for good qualifications development include:

- A clear understanding of what the qualification is measuring and being used for.
- Qualifications need a vision, purpose and a target audience.
- Qualifications should be capable of appropriate differentiation and have clearly defined levels.
- Qualifications are a currency and in order to be a strong currency, users need to have confidence in the qualifications.
- Vocational and academic qualifications should not be presented as opposite ends of a one-dimensional spectrum of ability.
- Qualifications need stability and changes should be evolutionary rather than revolutionary in order to develop confidence in the 'currency'.
- There should be clear progression options between individual qualifications and these should also allow for movement between levels and between vocations.

Detailed response

1. How can we improve the organisation of vocational education for 14-19 year olds?

Arrangements for developing qualifications

Stakeholder engagement: Qualifications, including vocational qualifications, should be developed in consultation with the full range of subject specialists, 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.

Piloting of qualifications: SCORE partners believe that any qualification development process needs to allow sufficient time for developing, piloting and evaluating the specification, its delivery and assessment.

Perception: Technical skill and academic ability are not opposite ends of the same spectrum. They are different dimensions and it is perfectly possible to have either one, both or neither. If the development of vocational qualifications does not take account of the lessons from history, mistakes are bound to be repeated, and the qualification destined to be unpopular or of low status. There is a significant risk that non-academic (e.g. vocational) qualifications will be seen as a course for "less able" students.

Accountability: Many students are currently entered for a vocational qualification because they carry an equivalence for league tables which may be used by schools as an opportunity to improve their position in the league table. This is unsatisfactory and should be addressed partly by removing equivalences and partly by exploring more sophisticated methods in which to compare schools or achieve accountability.

Numbers: Identify the size of the cohort – This is likely to be small for level 2 science. Currently, in the UK, around 350,000 students get an A* to C in Additional Science or separate sciences (schools will therefore remain happy to enter these students for science GCSEs because it improves their standing in league tables). Of those about 200,000 get an A* to B (relevant as schools will then allow them onto A-level courses in the sciences). And of those about 60,000 go on to A-level courses in the sciences. With such a potentially small cohort at level 2, developers of vocational qualifications need to explore ways to make the qualification commercially attractive to an awarding organisation.

Timing: Qualifications should no longer be affected by the political cycle. Moreover, it is essential that curriculum and qualifications, particularly for those in school, are no longer reviewed in a piecemeal fashion.

2. 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?

Appropriate age for young people to be engaging in vocational education

Pre-16 education: Qualifications and curricula pre-16 should provide a skills and knowledge platform for greater specialisation. Whilst this doesn't discount the provision on vocational qualifications at the age of 14, it is crucial that students (and parents) receive guidance on the possible progression routes these qualifications are likely to offer, and those that could be closed down. Furthermore, the provision of vocational qualifications should also be considered during any forthcoming review of the national curriculum and related qualifications. This joined up approach is particularly important for those areas of vocational qualifications where there is a significant overlap with the core curriculum.

Appropriate target audience

Vision and purpose: In science, as in other subjects, there is often a lack of clarity around the purpose of qualifications. Awarding organisations, teachers and others use terms such as 'applied' and 'vocational' interchangeably when describing a qualification. 'Applied' in terms of science qualifications can be used to mean how the qualification is taught and assessed, or alternatively, that the qualification covers the practical techniques that students might need in a work place. In addition, there is a perception by many (perpetuated by some teachers, schools and awarding organisations) that so-called 'applied science' qualifications are for lower ability students. This lack of clarity of purpose has dogged the development of many science qualifications and needs resolving.

Identifying students: Students suitable for vocational qualifications will overlap with students who are currently successful at GCSE. As stressed earlier, vocational and academic qualifications sit on different dimensions not on opposite ends of a spectrum; one mark of a successful technical qualification is that students who have both technical and academic ability choose the technical pathway out of preference rather than by default.

Meeting learner's needs: Science vocational qualifications should be aimed at learners aspiring to a particular science-related job or a relevant professional qualification 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.

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

Improve progression from vocational education to positive destinations

Progression: There should be clear progression options between individual qualifications, such as those established routes from GCSE to A-level, and these should also allow for movement between levels and between vocations. 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 in 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 (*Nuffield reference*). 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.