Assessing subject-specific skills

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1 Introduction

Many stakeholders involved in designing qualifications argue that too much theory and knowledge is 'irrelevant' or 'abstract', and less important than 'skills'. Although this has long been a view in vocational education, an emphasis on skills is also widespread in general 'academic' education. Here, understanding concepts and facts rooted in subject disciplines, and then applying them to particular contexts, are depicted as 'skills'. In addition, both academic and vocational qualifications increasingly aim to incorporate diverse generic social, work and personal skills.

One effect has been to separate knowledge from skills and then to prioritise skills over subject knowledge. In part, this is a way of differentiating between 'general/academic' and 'vocational' qualifications, but an emphasis on skills over knowledge and theory is evident in all courses and qualifications at all levels.

Whilst this seems straightforward and is rarely challenged, emphasis on skills creates problems for the design and implementation of assessment. These problems are rarely discussed by stakeholders in qualification design, including teachers. The terms 'knowledge', 'theory', and 'skills' are confusing in themselves, and they are used by different stakeholders to mean very different things. Assumptions are also made that generic skills are context- or subject-free and also transferable between different contexts.

Appropriate guidance therefore requires clarification amongst qualification designers, teachers and verifiers/moderators about what is meant by knowledge, theory and skills, as well as some discussion of how to assess them at different levels of demand or challenge. These guidance notes draw on some recent research that explores how different stakeholders interpret 'knowledge' and 'skills' in general and vocational education in the English context (see Ecclestone 2010, Bathmaker et al 2010). The notes identify specific problems that have arisen from lack of clarity about terms and meanings in qualification design in recent years, and summarise implications for designing assessments for subject-specific skills.

2 Vocational and academic/general knowledge

Knowledge is used in numerous different ways, but increasingly refers to what might once have been seen as skills. For example, the term 'body of knowledge' traditionally denotes the facts, concepts, ideas and debates, and applications of these, associated with a particular discipline or subject, such as History, Science etc. However, it is becoming more common to talk about knowledge, and to refer

to ‘bodies of knowledge’, but to mean something quite different to disciplinary knowledge. For example, in a recent report offering a vision for broad vocational education in English schools, called *Bodies of Knowledge*, Guy Claxton and colleagues talk about knowledge being ‘embodied’ within people, and their report focuses on learning through developing ‘habits of mind’ and ‘frames of mind’, which are not closely connected to knowledge within particular disciplines or subjects. In other definitions, these habits or frames of mind could be cognitive, thinking or problem-solving ‘skills’.

Further confusion about distinctions and connections between knowledge, subject-specific and generic skills arises from confusion about what ‘vocational’ education means, as opposed to ‘academic’[1]. For some stakeholders, the term ‘vocational’ refers specifically to occupational and workplace knowledge, practices, and learning. For others, ‘vocational’ refers to formal educational provision that is work-related but not work-based, and which may involve a significant place for theoretical knowledge that has an applied slant. For others again, ‘vocational’ merely means ‘practical’, ‘applied’ or ‘active’ and is therefore more about pedagogy and certain types of assessment methods that suit certain ‘types’ of students (here, labels of ‘disaffected’, ‘disengaged’ or less disposed to ‘academic’ learning are synonymous with ‘vocational’ students). From this perspective, vocational education develops generic employability, learning to learn and social skills rather than knowledge and skills related to specific occupational areas.

One effect of these very different interpretations is to associate vocational knowledge and skills with vocational pedagogies and assessment methods, and academic and general education with didactic teaching and written assessments. It is widely assumed in vocational education, for example, that students will only engage with ‘practical’, ‘active’ or ‘applied’ teaching and assessment methods because they are incapable of, or simply unwilling to do other forms. Rather than starting with clear conceptualisations of knowledge and identifying their relationship to subject or generic skills, this view determines what is taught and assessed.

3 Generic and subject-specific skills

Whatever meaning of ‘vocational’ is used, vocational education is widely assumed not to be a knowledge-based or knowledge-driven curriculum, aiming, instead, to teach and assess a diverse range of skills, including ‘learning to learn’, ‘reflective practice’, ‘social and personal’, ‘employability’, ‘thinking’ and ‘problem-solving’, amongst others. These skills are widely seen to be broad, generic and transferable and teachable and assessable in their own right, and the subject context is merely a vehicle for their delivery.

In relation to subject-specific skills, academic qualifications, and some vocational qualifications, aim to develop the skills of identifying, describing and using

[1] ‘Academic’ is a very misleading term, and unique to Britain since other countries talk about ‘general’ and ‘vocational’ education.

concepts, ideas and information, and then analysing and evaluating them, usually in relation to specific examples or situations. For some teachers and qualification designers, these are ‘cognitive skills’ and Bloom’s *Taxonomy of Cognitive Objectives*, written in 1956, still remains a very useful guide to identifying these subject-specific ‘cognitive’ skills.

However, other teachers regard using and applying knowledge, whether on its own, or in relation to real-life contexts, not as a ‘skill’ but merely a use or application of knowledge, while reflective practice or thinking about one’s skills and attributes as a learner (‘learning to learn’) might legitimately be seen as a ‘habit of mind’ and therefore a skill.

These very different uses of terms and meanings make it important to clarify what is meant by a skill, and then to differentiate between generic skills, such as learning to learn etc, the competences of written and oral communication, and those which require the application of knowledge and theory to specific situations, whether these are simulated, hypothetical or real-life.

4 Implications for course and unit design

Without some consideration of meanings and interpretations of skills and knowledge, and some attempt to establish agreed meanings, designing and implementing assessments are prone to a number of problems. These and their implications are identified here.

1 It is important to clarify differences between types of knowledge and skill, and then to differentiate between subject-specific applications of knowledge (what some see as ‘cognitive skills’), subject-based skills, and generic skills, and to help teachers see connections between those skills and theoretical knowledge.

2 Over-emphasis on generic skills, together with ambivalence towards, or rejection of, theoretical knowledge, make it difficult to explore how links between theory and practice can really be achieved. Emphasis on a skills-based curriculum should not avoid attention to the theoretical knowledge that is to be linked to practice.

3 It is not possible to present subject-specific skills in isolation from the knowledge and theory that underpin them. Without some consideration of this relationship, knowledge is downplayed and reduced to ‘bits’ of information that underpin the skill being assessed. This leads to the disjointed teaching and assessment of skills, and to coaching students to meet individual skills demanded by individual criteria or outcomes statements.

4 Over-emphasis on the skills of describing, synthesising, analysing and evaluating, learning to learn and communication at the expense of related knowledge can lead to context-free activities driven by a perceived imperative for practical and active methods, rather than a considered view of the links between knowledge and skills.

5 Lack of clarity and over-emphasis on skills can create proliferating lists of skills that often overlap, and are not related to different levels of progression.

6 Lack of clarity about terms and meanings exacerbates a tendency to assume that certain assessment methods assess certain types of learning outcomes and are suitable for certain ‘types’ of students. This leads to a number of unchallenged assumptions, including a view, for example, that essays and written examinations only assess ‘abstract’ theory or knowledge, and that vocational students will be unwilling or unable to do them, or that posters, computer-based activities and presentations are inherently skills-based because they are more ‘active’ than writing!

7 Without consideration of terms and meanings, and of connections between knowledge and skills at different levels of progression, students can end up repeating very similar skills at different levels of the qualifications framework.

5 Summary

While the problems and implications identified here are far from straightforward to resolve, qualification designers need to address them. In turn, guidance and advice to teachers needs to help them think about how to assess skills in relation to knowledge. Clarifying some terms and meanings is a crucial step in that process.

References:

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