

‘Competence’ and occupational standards: observations from six European countries

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Abstract

‘Competence’ is becoming a widely-used concept across Europe, but its interpretation and application both vary. This paper reviews the use of competence as a concept and through the use of occupational competence standards in six European countries. Between them, the countries illustrate the use of separate occupational standards, both as a national strategy and developed by self-governing professions; as well as competence embedded directly in qualification and training specifications. The use of separate standards as a mandatory component in national vocational education and training systems is questioned, while the use of appropriate standards for licensing and qualified status is largely endorsed. The study also points to the need to avoid promoting any particular model of occupational competence at a European level, and cautions against the uncritical transfer of models and policies from one national system to another.

Introduction

The idea of ‘competence’, and more specifically its expression through occupational standards of one form or another, has become an established if contested part of the European vocational education and training (VET) landscape over the past decade and more. Influenced partly by the British system of occupational standards and promoted via the European Union (EU) agencies CEDEFOP and the European Training Foundation (ETF), a steady growth has been apparent in the number of countries developing standards that are designed to reflect what is needed to act effectively in various occupations (CEDEFOP 2009). However, while the number of countries developing occupational standards is increasing, it is notable that enthusiasm for them in Britain is waning in the light of their questionable impact on initial VET. On the other hand, the use of competence standards, either taken from national systems or developed specifically for the purpose, to underpin occupational licensing and the award of professionally qualified status appears more successful. A recent comparison of six EU member countries – three with separate occupational standards frameworks, and three without, including one in each group with a tradition of self-governing, standard-setting professions – while unable to offer any conclusive evidence into the appropriateness of different systems, provides some useful insights.

This paper is based on an initial investigation, in the form of desk research and literature review, carried out as part of the project ComProCom. ComProCom (Communicating Professional Competence) is an Erasmus+ Strategic Partnership project (www.comprocom.eu), running between 2015 and 2017, that aims to develop a more effective model, or models, for describing higher-level professional competence than those that have been used to date in national VET systems. The

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project involves partners from six countries, namely Austria, Germany, Greece, Ireland, Poland and the United Kingdom, all except the last of which are developing and trialling a competence framework for one of five different occupational fields. The first piece of work undertaken by the project partners involved each contributing a short summary and assessment of the use of competence standards or the equivalent in their countries, with the authors of this paper producing an overview and synthesis (Religa and Lester 2016). While ComProCom is concerned principally with activities that would equate to European Qualifications Framework (EQF) level 5 and above, the background research looked more generally at occupational competence standards as used in national VET systems as well as (in the two countries where they were prevalent) some of the separate approaches used by professional bodies.

The idea of competence

A substantial literature has built up around understandings and uses of 'competence', both in the context of individual countries – within Europe particularly in France, the UK, and Germany – and comparatively; a summary up to 2004 is provided by Le Deist and Winterton (2005), and subsequent comparative European discussions include Mulder *et al* (2007), Weigel *et al* (2007), Winterton (2009), Brockmann *et al* (2009, 2011) and Le Deist and Tutlys (2012). This literature points to significant differences in national traditions, as well as the need to distinguish between on one hand the conceptualisation of competence and on the other the way that it is applied in different VET and professional applications, both within and between countries. Several authors have also commented that usage in European VET instruments, particularly the European Qualifications Framework (EQF), fails to offer clarity (Winterton 2009, Le Deist and Tutlys 2012, and Lester 2015a).

Leaving aside uses of the term that are less relevant to this paper (such as to mean the authority or legal powers of a person or organisation, or the annual value of an endowment or estate), a definition of competence provided by the Oxford English Dictionary is 'the ability to do something successfully or efficiently'. This concise definition clarifies that competence is 'the ability to do', rather than either the skills, attributes or propensities associated with doing, or the actual performance of tasks; as such it can be considered as reflecting an 'external' perspective in the sense used by Mansfield (1989), Eraut (1998) and Lester (2014a), i.e. concerned with a person's ability to meet a socially-defined expectation such as (although not restricted to) completing a task or acting effectively across a work role or as a member of a profession. Conceptually this can be distinguished from an 'internal' perspective, discussed in the three papers above as concerned with the attributes of individuals (such as knowledge, skills, attitudes and habitual behaviours) that provide them with the capacity to act competently. An exploration of competence from a principally internal perspective is provided by Mulder (2015). While Winterton (2009) points to the difficulty in practice of making a clean separation between internal and external dimensions of competence, failing to distinguish them conceptually can both inhibit common understandings and lead to insufficient appreciation of the difference between having relevant knowledge, skills and attributes and being able to act effectively in an operational context (e.g. Eraut 2009).

Within European VET systems, Le Deist and Winterton (2005) comment that the British, German and French applications of the idea of competence can be regarded as particularly influential. Essentially, the British version of occupational competence has focussed on standards of practice in the workplace, expressed through functionally-based descriptions, often supplemented with lists of

associated knowledge. While in some respects this represents a fairly purist interpretation of 'ability to do' and makes for the flexibility to recognise ability regardless of how it has been acquired, of the three approaches it is also the narrowest in scope. In Germany, there are two main traditions relating to competence: one, from the education system, is a broad conception in which *Kompetenz* is regarded as belonging to the person and including intellectual, personal and social abilities (closer to the idea of capability in English, for instance as used by Stephenson and Yorke, 1998); the other, present in the vocational training system, is described as comprising knowledge, skills (*Fertigkeiten*) and capabilities (*Fähigkeiten*), leading to the ability to act effectively across all the elements of an occupation (*berufliche Handlungsfähigkeit*). In France, competence is conceptualised from a more intellectualist standpoint as *savoir*, *savoir-faire* and *savoir-être* (roughly knowledge, know-how and personal competence); of the three versions it is the most educationally-oriented in origin, although operationally it is also supported by measures that enable demonstration of competence to be detached from educational programmes. Conceptualising (work-oriented) competence for VET purposes suggests a need for adequacy for all three of these applications, effectively requiring the flexibility associated with detaching the description of competence from education and training routes, reflection of the capacity to work across occupations rather than only to perform defined functions and tasks, the inclusion of ethical, social and intellectual dimensions, and the ability to reflect the need for professional autonomy and judgement.

In addition to whether an 'external' or 'internal' perspective is taken, a further distinction can be made between the way that occupational competence is represented, drawing on research into competence standards used in British professions (Lester 2014a/b). This concerns the difference between models that seek to describe specific occupational roles or the associated abilities in detail ('bounded-occupation', *ibid*) and those that are concerned more broadly with the ability to act effectively across a professional or occupational area over time and therefore with what might be termed core capability ('centre-outwards'). Bounded-occupation models (typified by the occupational standards used in the UK VET system) tend to at least start by describing work roles in functional or task-based terms, they typically run into many pages of detail, and when translated into VET qualifications often take the form of a unit-based, core-and-specialist structure. Their specificity tends to make them vulnerable to changes in technology, regulations, and ways of working, and they are generally poor at predicting ability to act effectively beyond the roles and functions that are described. Centre-outwards models (more commonly found in the standards of self-governing professions) are largely external in perspective but concerned more with activities central to the profession or occupation, as well as with judgement, professionalism and ethics; they tend to be much more concise (a dozen pages at most), reasonably resilient to change, and in most cases are 'universal', i.e. the standards apply to practitioners regardless of specialism or context.

Competence standards and VET in the partner countries

As part of the project ComProCom, each partner was tasked with summarising, under a set of common headings, the use of 'competence' in VET and professional development in their respective countries. The partner reports were based on desk research, existing literature and partners' own knowledge. They focussed on matters that needed to be taken into account in the development work within the project, but between them provided enough information to make some more general observations. The summaries that follow are based principally on these reports.

The United Kingdom

The UK was one of the earliest countries to develop a comprehensive system of occupational competence standards, initiated by the then Employment Department in the mid-1980s in response to a government-commissioned review of vocational qualifications (Manpower Services Commission 1986). By the end of the decade the country was committed to developing National Occupational Standards (NOS) for a target of 80% of identifiable occupations, using a process of functional analysis of work roles (Mitchell and Mansfield 1996). One of the aims behind the introduction of NOS was to encourage and co-ordinate industry involvement in the specification of VET qualifications, initially via over 200 occupational standards committees or 'lead bodies', later reduced to 21 broad-based Sector Skills Councils. NOS represent standards of work and are independent of qualifications or VET curricula, though expected to underpin them. These standards, which can be described as external and functional in nature and taking a bounded-occupation approach, were used directly as the specifications for National Vocational Qualifications (NVQs), effectively assessment standards geared to use in the workplace and in realistically simulated situations. NVQs popularised a number of innovations including certification based on workplace performance, direct access to assessment without following a specific course or training route (thus supporting accreditation of prior learning without prejudice as to source), and (at least in theory) modular certification. During the two decades from 1990 they became the dominant qualifications in part-time VET, both for existing workers and for trainees and apprentices.

While at least some of the architects of the British 'competence movement' espoused a reasonably holistic idea of competence (e.g. Mansfield 2004), its practical articulation through NOS has been more restrictive, leading to criticisms of a lowest common denominator based on task performance (Hyland 1997), inadequacy for higher-level roles (Elliott 1991), and undermining VET courses by substituting work-based assessment standards for more balanced curricula (Brockmann *et al* 2009, Young 2011). NOS have evolved over time to address some of these points, though not so much to have escaped further criticism in more recent reviews of the initial VET system (Wolf 2011, Richard 2012). Changes in the rules for approving vocational qualifications have now broken the direct link between NOS and qualifications, and in England a different and more concise approach has recently been introduced to specifying apprenticeship standards (HM Government 2015). Further work led by the UK Commission for Employment and Skills is also taking place to develop revised approaches to NOS, although the Commission itself is being wound down as government support for NOS is due to be withdrawn in England. The current outlook for NOS is that they will remain in use where there is support for them from the relevant industries, but in sectors where there is little employer interest they are likely to atrophy.

The UK also has a strong tradition of professional bodies, including both state-endorsed regulators and (the larger proportion) self-governing associations; approximately 400 such bodies are estimated to exist (PARN 2015), principally representing the higher levels of the occupational spectrum. Many of these bodies set standards of practice and conduct assessments of various kinds to qualify or license practitioners to work in their fields, independently of (and usually following on from) VET or higher education. Initially, these standards tended to be based on the profession's body of knowledge, describe desired skills, knowledge and attitudes (influenced by Bloom *et al* 1956), or less commonly use a McBer-type behavioural model (McClelland 1988); from the 1990s onwards, professions started to take a more external perspective on competence, with the best examples (as

has been noted) generally taking a centre-outwards approach reflecting broad professional capability (Lester 2014a).

Germany

As has previously been noted Germany can be posited as having two different but related conceptions of competence, one as used in the education system (*Kompetenz*) based on a reasonably holistic notion of the abilities of the person (Kultusministerkonferenz 2004), and the other on occupational capability (*berufliche Handlungsfähigkeit*) as used in the work-based part of the 'dual' VET system (see below). The second conception includes both an internal and an external perspective, though with a clear orientation to the ability to act effectively in work and social contexts. The German qualifications framework (DQR), introduced in 2013, aims to reflect something of both of these concepts; competence is defined as involving the application of knowledge, skills, social competence, and autonomy or self-reliance.

Unlike the UK, Germany preserved a strong tradition of apprenticeship training, formalised from the early twentieth century as what has become known as the 'dual system' (regulated on-job training combined with classes at a vocational school). The Vocational Training Act that currently underpins the work-based component of this system was passed in 1969 and updated in 2005 (BIBB 2014). Work-based training is specified through an *Ausbildungsordnung* (training regulation) that includes the knowledge, skills and capabilities to be covered, as well as a training plan and the regulations for assessment; while the first part of this can be regarded as an occupational standard, it is an integral part of the specification and does not aim to be a practising standard independent of its training application. As at 2013 there were 331 sets of initial training regulations, some covering unitary occupations and some with two or more specialisms. A formal procedure exists for developing or revising *Ausbildungsordnungen*. This is led by the relevant Ministry in conjunction with sector, employer and employee organisations, supported by advice and if needed research from the Federal Institute for VET (BIBB), with the final approval being made by the Ministry at national level. This system is widely seen as providing a secure and stable underpinning for a strong intermediate skill base and an autonomous, responsible workforce. Criticisms (see for example Reuling 1998 and Deißinger 2012) include that it limits flexibility of entry, fails to recognise learning from less structured sources, and can be slow to respond to changes in the labour market.

In addition to the procedure for developing *Ausbildungsordnungen* for the initial VET system, there is a regulated but less standardised process for developing continuing training regulations (*Fortbildungsordnungen*) leading to advanced vocational qualifications at DQR/EQF levels 5 to 7, including the *Meister* designation at level 6 (BMBF/KMK 2012). Only the examination content and procedure is regulated, with both the route taken by individuals and the content of preparatory courses being left open (in practice most candidates take a course, some full-time but the majority while remaining in work). In 2015 there were 767 occupations with continuing training regulations specified by chambers of commerce, crafts or agriculture, and 221 regulations at federal level, mainly for the *Meister* qualification; in addition to this, a further 226 regulations at state (*Land*) level cover health occupations.

A few stand-alone competence specifications have been developed outside of these systems, including in software engineering and the chemical and water industries. Except where these are also

used to inform the initial and continuing training regulations they currently have no official status, but they can be used to support continuing development, offer certification outside the state system, or to guide practice. In some areas rapidly-evolving occupations or demands from employers for greater labour market flexibility is creating some pressure for more flexible VET, although this is largely resisted by sector bodies and employee organisations.

Ireland

The notion of competence is fairly widely used in Ireland, without any specific definition or approach to operationalisation; although British occupational standards were occasionally borrowed for particular applications, the Republic avoided embarking on an equivalent programme of standards development. The Irish National Framework of Qualifications (NFQ) was introduced in 2003 and now forms the main organising framework for the development of VET qualifications. Qualifications within the framework are unitised and based on learning outcomes stating what learners should know, understand and be able to do; they can be practically-oriented or more purely knowledge-based. VET qualifications are based on research into sectoral needs, and drawn up by a standards development group for each occupational area that includes industry representatives and other relevant sectoral stakeholders. The process is overseen by the national qualifications and quality assurance body Qualifications and Quality Ireland (QQI). While some specifications could be described as occupational competence standards, the system is agnostic as to any particular approach to or model of competence.

Ireland, like the UK, also has a strong tradition of self-governing professional bodies that set standards for their areas of practice. The limited research done for ComProCom suggests that like their British counterparts these vary in approach and quality, though with a similar dominance of external models. A number of professions particularly in the health sector have 'competence schemes', but these relate to updating and continuing education and are not as a rule based on competence standards or frameworks.

Poland

Poland started to introduce a system of occupational or professional standards (*Krajowy standard kompetencji zawodowych*) in the late 1990s, through a series of projects co-funded and overseen by the Ministry of Labour and Social Policy (MPiPS). At the time of writing 553 sets of standards had been developed, out of a total 2,443 occupations listed in the Polish labour market classification. Since 2012 a standardised, revised format has been used, consisting of key tasks accompanied by a description of associated skills, knowledge and personal and social competence. This is designed to facilitate the interpretation of industry and professional needs into learning outcomes that could be mapped to the levels of the Polish (and European) qualification frameworks (Bednarczyk *et al* 2014). So far, around 300 sets of standards have been revised in accordance with this format, with half of these at EQF levels 6 and 7.

The development of occupational standards follows a standard process involving employer, employee and professional association representatives, educators, and other specialists such as work analysis and vocational guidance practitioners. A mix of direct research with practitioners, functional/task analysis, Delphi technique, and consultation is employed to develop the standards, broadly drawing

on a model adapted from the British one (Mansfield and Schmidt 2001). Final approval is given by the industry commission for the relevant occupation, before the standards are added to a database operated by MPIPS. The standards can be regarded as based on an initially external and bounded-occupation model to which internal components are added, although unusually for bounded-occupation standards they cover single occupations and are relatively concise (c. 16 pages is typical).

The approach taken in Poland can be described as a form of soft influencing: occupational standards have an advisory rather than statutory status, and their aim has been primarily to inform work-based training rather than formal VET qualifications and courses in educational institutions, although their use to guide qualification content is increasing. In this sense they have similarities with both the British system of occupational standards, and the German principle of developing curricula for work-based training separately from those for the corresponding programmes in educational institutions.

Greece

State-endorsed 'competence-based' approaches to VET originated with legislation passed in 2003 to improve co-ordination of VET with labour market needs. This set up a formal process for linking VET content to employment, and created an aim to develop 'occupational profiles' (OPs, *επαγγελματικά περιγράμματα*) specifying the needs of the labour market in terms that could be used to inform and evaluate VET provision. Formal systems underpinning the latter, and their relationship to certification, were introduced in further legislation in 2005, and a one-off, state-led project to develop the OPs was undertaken between 2008 and 2010. This exercise covered 202 occupations, amounting to 41% of those listed on the Greek occupational classification (STEP-92), most at EQF level 4 or below. The process was led by the national qualifications authority (EKEPIS, now EOPPEP) and involved for each occupation the formation of a committee with employer and employee representation, plus a working group of experts in the relevant field.

The OPs were developed according to a standard methodology (again drawing on the Mansfield-Schmidt model) using desk research, interviews with people working in the occupation, a combination of Delphi technique and functional analysis to develop the content, and consultation with employer and employee organisations. Each OP consists of a title and definition of the occupation covered; a description of key functions, tasks and work processes; the knowledge, skills and abilities needed for the occupation; associated education and training pathways; and indicative methods of assessment. As with Polish standards, Greek OPs combine external and internal components and take a bounded-occupation approach; however, they aim to cover broader occupational areas and go into more detail, with a typical OP comprising around a hundred pages of text.

Occupational profiles are intended to inform the content of training programmes and act as accreditation standards for VET curricula; they have also been used in a few fields directly for licensing technicians and operatives. The profiles have come under criticism for their variable quality, the lack of a process for updating them, and their complexity and length. In practice they have not been used as widely as intended, and have not gained a high level of acceptance across the VET community; in general they have been found to be more useful as tools for agreeing licensing or accreditation criteria than in reforming VET programmes.

Austria

The Austrian VET system is based on similar principles to the German one, and Austria is one of the few countries other than Germany to have a widely-used 'dual system' of occupational entry. Around 35% of the age-cohort use this route, though sequential VET (a full-time course followed by training in the workplace) has now overtaken it in popularity, and it has been described as having become a 'secondary pillar' with less prestige than the German equivalent (Deißinger 2012). The idea of competence has been in use since the 1990s, and Austrian conceptions are fairly close to German ones. Competence (*Kompetenz*) is defined broadly as having four dimensions: occupational (*Fachkompetenz*), personal (*Selbstkompetenz*), methodological (*Methodenkompetenz*, involving flexibility, self-directed learning, independent problem-solving and accountability) and social (*Sozialkompetenz*, involving openness toward the world, environmental awareness, team spirit, work ethics, and communication) (Markowitsch 2009).

Again as with Germany there is a division of responsibilities, through to the level of government ministries, for the development of VET curricula in schools and colleges and those that apply to the work-based part of the dual system. The development of *Berufsbilder* (occupational training specifications) for work-based training is co-ordinated by the VET research bodies IBW and ÖIBF in conjunction with employers, employee representatives and professional organisations, before approval by the Ministry for the Economy (BMWFJ); among other things they specify the key work activities in the occupation, and the associated knowledge and skills to be acquired. Educational standards for each occupational area (1795 in total) are listed on the Austrian *Berufslexikon*, and are regulated by the federal education ministry (BMUKK). Since 2004 these have gradually been reformatted as learning outcomes, and based on a notion of competence. Although there is a formal system of correspondence between *Berufsbilder* and educational standards, there is sometimes criticism that the latter do not always match particularly well to labour market needs.

Observations

The six countries in the study divide into those that have a national system of (occupational) competence standards independent of qualifications or curricula (the UK, Poland and Greece), and those where descriptions of competence are at least for initial VET an integral part of training curricula (Germany and Austria) or qualification specifications (Ireland). A further distinction can be made in that in Germany and Austria there is an identifiable occupational standard built in to the training specification even if it does not have any other application, while in Ireland the occupational requirements are more closely integrated into the qualification and in cannot always be separated out as an 'occupational standard'.

One observation that can be made from the study is that the ability of the VET system to reflect labour market needs does not depend on the presence of a separate system of occupational standards. In the three countries without such a system, the involvement of social partners (such as employers, unions and professional bodies) in informing the content of VET appears to be at least as strong and effective as in the countries that have occupational standards. In Germany in particular it is arguably greater, via the well-established involvement of industry in developing training specifications directly rather than via the mediation of occupational standards. It is informative to compare this with the 'feedback loop' model used by the European Training Foundation (Fretwell *et al* 2001) and CEDEFOP

(CEDEFOP 2009, p15), in which labour market needs for competence are seen as being formulated via occupational standards that are then translated into VET programmes and qualifications. This model has been criticised by among others Allais *et al* (2014) as having developed to suit the needs of liberal-capitalist economies such as those of the UK and Australia, where policy is generally concerned with influencing competitive VET provision to meet the demands of a minimally regulated labour market. If the model is interpreted as implying the necessity for competence standards that are distinct from curricula and qualifications, this becomes questionable when considered in the light of more co-ordinated labour markets such as those of Germany and Austria (Hanf and Rein 2007). In these, policy is geared more to creating dialogue between, and managing, both parts of the system. From this perspective, it is unclear to what extent the adoption of separate occupational standards in other European countries – Greece is a case in point – is always thought through at the level of the overall labour market and VET system, or is more a case of ‘policy borrowing’ from the superficially portable British model (Allais *et al* 2014).

A second observation is that the presence of separate occupational standards does not imply agreement on their status or how they should be used. The Polish system is advisory and partial, and forms a resource that curriculum and qualification developers and guidance practitioners are able to use as relevant to their needs. The Greek system aims to have a statutory function, although as yet its coverage is still partial and so far it has been more successful as a basis for licensing than in influencing the VET system. The British system, with the longest history of the three, was introduced with a mandatory role and aspirationally comprehensive coverage, but over the last decade it has been overtaken by more sophisticated and resilient models of competence in the professions, changes in the regulations for approving vocational qualifications, and a revised system for specifying apprenticeship programmes; it now serves more of an advisory function, and both its coverage and its importance as a policy tool are in decline.

A further comment concerns how occupations are defined for the purposes of developing standards. In Germany and Austria, the demarcation of occupations (*Berufe*) for which training specifications are to be developed is influenced by employer and employee bodies rather than by any deliberate system of classification. A similar situation obtains for professions in Britain and Ireland, where professional bodies have normally emerged over a period of decades as communities of practice have formalised themselves as professions. By contrast, in Greece and Poland standards have been developed around national occupational classifications, while the coverage of British occupational standards has been influenced by both the boundaries of established industry and training bodies as well as by more deliberate demarcation. What might be termed the industry-led or evolutionary approach can be posited as leading to better reflections of how occupations work in practice, though particularly if coupled to a heavily-structured VET system or well-defined professional territories it can be slow to accommodate emerging occupations and changes in the labour market. Occupational classifications on the other hand were designed principally for statistical purposes, and as an organising structure for competence standards (or VET programmes) they can be too rigid (Tijdens *et al* 2012). This problem is exacerbated if (as is the norm outside of the professional bodies) standards take a bounded-occupation rather than a centre-outwards approach.

With regard to technical matters, it is worth noting that the three countries that use separate occupational standards in their VET systems all employ broadly similar development methodologies, originating from the British model. In the UK itself occupational and functional analysis (see Mitchell

and Mansfield 1996) have been the orthodox tools for a quarter of a century, with alternatives only recently being considered. Various limitations have been noted with functional analysis, including that it is a deductive rather than research-based method, it has a propensity for producing rigid and over-detailed descriptions, and it misses less tangible but permeating aspects of competence. In Greece and Poland a modified version of this approach has been used, loosely based on the Mansfield-Schmidt model (Mansfield and Schmidt 2001) which was promoted by the European Training Foundation; differences have included the use of primary research to explore what practitioners actually do, and a greater focus on internal or developmental aspects of competence. In Germany, Ireland and Austria approaches are standardised less through preferred methodologies and more through common templates, with the content being derived via a mix of expert and research-based methods as relevant to the particular case. British professions are also less standardised in approach and, after a certain amount of experimenting with functional analysis, have tended to move towards more pragmatic mixed-methods models.

Conclusions

The above analysis suggests some tentative conclusions about the use of competence standards in initial VET, for development of the existing workforce, and for the award of qualified or licensed status.

In initial VET, evidence from the six countries in the study suggests that the concept of 'competence' has become an important part of enabling programmes to be adequately geared towards occupational needs, as well as potentially (when used in its broader sense, e.g. *Kompetenz*) to supporting the more general development of students and trainees. However, there is nothing to suggest that separate occupational competence standards are either necessary, or necessarily beneficial in this context; the evidence that is available tends to point in the opposite direction, namely that they lead to programmes being relatively narrow, focussed on skills and task performance in relation to closely-defined occupational roles, and potentially open to abuse by being interpreted as requiring no more than a minimal standard of ability. There is a caveat to this in that most evaluations of VET designed around occupational standards come from Britain and Australia, which both have predominantly liberal-capitalist labour markets and have taken a functional, nominally mandatory approach to standards. A different approach to the design of competence standards and a less prescriptive way of applying them may produce better results, with the Polish approach appearing to have potential in this respect. On balance however, models where occupational requirements are embedded in a broader programme or qualification standard, as in Germany or Ireland, appear better-suited to supporting initial VET programmes that are robust, resilient and prepare their students for careers and professions rather than specific jobs.

In principle, separate competence standards might have a stronger role in the development and certification of the current workforce, where attendance on full-length VET programmes is often not appropriate. In this area a more diverse range of less formal programmes are generally needed with less emphasis on holistic development and more on supporting a range of different aims and on accommodating learners with different starting-points. Certainly some of the most enthusiastic industry support for NVQs in the UK related to employers wanting to upskill and credential their existing employees, rather than attaching to any perceived need to reform the initial VET system. However, although there is evidence of competence standards being used to drive learning and raise skill levels in the workplace (e.g. Stephenson *et al* 1999), they have been used more commonly as a

means of attesting to existing skills or to support very modest increases in capability. A more positive picture emerges in some professions, where there are examples of professional competence frameworks being used as a guidance tool to support ongoing development. Examining continuing workforce development as a whole, whether from a company-based, professional, individual or educational perspective (see for instance Friedman 2012 and Lester 2015b), suggests that while there is a role for competence or practising standards they are only one tool among many and cannot be used prescriptively.

A more positive picture emerges in relation to licensing and the award of qualified status, particularly where these processes cannot be tied to particular training or study programmes. Competence standards are used to support assessment for this kind of certification in the UK, Greece and Ireland, through various regimes outside of the VET system and across a range of levels that can be equated to EQF 3 to 7. While in some cases national occupational standards or profiles have been used directly, it is notable that professional bodies have in most cases developed their own, more tailored and generally more concise, standards (ComProCom has drawn on the principles underlying some of these). Apart from freedom from national design principles, an advantage of this for many professions is that the same body is responsible both for developing the standards, for applying them, and in many cases for overseeing their continued observance by their own members. The distance between developer and end-user is therefore very small, and in principle any inadequacies in the standards are both identified quickly and have direct consequences for the responsible body.

To conclude, while more widespread understanding of the idea of 'competence' and how it can be applied is welcome, the promotion of occupational competence standards along the lines of the British model as a tool for making VET programmes more responsive to labour market needs is misplaced. There are clear benefits from adopting appropriately-crafted competence standards in particular contexts, particularly licensing and the award of qualified status and possibly also supporting the recognition of learning from experience or other less formal sources. The evidence relating to using them to underpin VET programmes is less positive, and there would appear to be more effective methods for ensuring that programmes and qualifications reflect workplace needs. Where countries decide individually to develop systems of occupational standards, the evidence examined here suggests that in relation to the VET system as a whole these need to have an advisory rather than a mandatory role.

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