

ComProCom: a revised model of occupational competence

Stan Lester¹, Anna Koniotaki², Jolanta Religa³

The final version of this paper is in *Education + Training* 60 (4), 290-302, 2018.

Abstract

Purpose This paper describes a revised approach to describing occupational competence, with particular reference to its application in two European countries at the level of specific occupational fields and in relation to the models used in national VET systems.

Design/methodology/approach An Erasmus+ project involved partners in five countries developing and trialling competence standards, following principles developed from approaches that have recently emerged in some British self-governing professions.

Findings The model used in the project avoids the narrowness that was characteristic of earlier British approaches to occupational competence. It provides a template that can be used for articulating the essentials of practice, including in emerging fields and those that cut across professions and occupations. It is also flexible enough to provide underpinnings for different types of VET system without making assumptions about the way that economies, labour markets and education systems are organised.

Practical implications A number of factors are outlined that improve the applicability of practice-based competence descriptions, including starting from occupational fields rather than job roles, focusing on the ethos and core activities of the field, and using concise and precise descriptions that are not limited to specific roles and contexts.

Originality/value A tested, practice-based model of competence is put forward that can be applied at the level of broad professional or occupational fields, is neutral in respect of national labour markets and educational systems, and offers a means of developing a common 'language' of competence at a European level.

Key words: occupational competence, practising standards, vocational education and training.

¹ Stan Lester Developments, Dulverton, UK: corresponding author (s.lester<at>devmts.co.uk)

² Hellenic Agency for Local Development and Local Government (EETAA), Athens, Greece

³ Institute for Sustainable Technologies - National Research Institute (ITEE-PIB), Radom, Poland

Introduction

Over the last two to three decades, competence standards and frameworks have become widely-used tools in European vocational education and training (VET) systems as well as in some industry sectors and professions. Matters such as what constitutes 'competence', how it might be described, and its relationship to curricula, training programmes and qualifications are however far from agreed (e.g. Mulder *et al*, 2007; Winterton, 2009; Le Deist and Tutlys, 2012; Religa and Lester, 2016). Within the European Union, the agencies CEDEFOP and the European Training Foundation have in the past promoted a British-influenced approach to describing competence, based on industry standards developed separately from educational or training curricula (see Mansfield and Schmidt, 2001 and CEDEFOP, 2009), as a means of communicating industry needs into VET. A different and more educationally-influenced interpretation is evident in the European Qualifications Framework (EQF) (Lester, 2015a). On the other hand pre-existing traditions, generally more closely integrated into VET or professional formation systems, are present in several countries as exemplified by Germany and France (Le Deist and Winterton, 2005). Nevertheless, although there is evidence of poorly thought-through policy borrowing from the British model at a systems level (Allais *et al*, 2014; Lester and Religa, 2017), separating competence or practising standards from education and training specifications has proved valuable in many professions and industry sectors, particularly for the purposes of awarding qualified or licensed status and setting minimum standards of practice. Within limits it has also proved a useful strategy for informing the content of training programmes, even for some applications in countries such as Germany and Austria that have robust traditions of involving industry and social partners directly in the design of VET programmes.

The British functional model of competence, associated with National Occupational Standards (NOS) and National Vocational Qualifications (NVQs), is perhaps the best-known and internationally most influential example of what has been called an 'external' or activity-based approach to describing competence. An external approach involves considering competence as the ability to meet social expectations (such as work requirements and professional standards) rather than as a set of attributes of the person such as knowledge, skills, capabilities, or attitudes (an 'internal' approach; see Mansfield, 1989 and Eraut, 1998). When following this approach, competence descriptions therefore focus on what it is that the person needs to be able to do, whether described as tasks, functions or broader areas of activity. The functional model is one version of this; it has been criticised in the context of VET as leading to curricula that are too narrowly focused on preparation for specific jobs (e.g. Wolf, 2011; Brockmann *et al*, 2011), as well as making too many assumptions about work roles and contexts to be able to capture the nature of (particularly higher-level) work adequately (e.g. Hodkinson, 1995; Lester, 2017a). Official support for NOS in the UK has declined steadily over the last decade to the point where they have now been largely sidelined for informing the content of VET qualifications and programmes. Some self-governing professions have however developed alternative external ways of describing competence, the best of which are more holistic, less focused on specific job roles, considerably more concise, and cognisant of the intellectual and less tangible aspects of practice. Although these approaches have evolved separately to meet the needs of individual professions, they share some common features and taken together they can be regarded as a second-generation British model (Lester, 2015b).

In 2015 an Erasmus+ project, ComProCom (Communicating Professional Competence), was initiated to trial an approach based on this latter model in countries outside the UK. The project's focus was

on higher-level areas of activity (nominally equivalent to at least EQF 5), with one exception not generally involving initial careers or gaining a licence-to-practise or similar form of professional accreditation. The remainder of this paper describes the principles and approach used in the project, and provides two examples of its application illustrating how it can accommodate emerging occupations and its relationship to the way occupational competence is operationalised at national and European levels.

ComProCom: Communicating Professional Competence

The project ComProCom ran from September 2015 to August 2017, with partners from Austria, Germany, Greece, Ireland and Poland who were involved in developing competence standards each in a different occupational field, plus a UK partner acting as 'scientific co-ordinator' or methodological expert. The early part of the project involved two main strands of activity, firstly research into the way that professional or occupational competence was articulated in each of the partner countries (summarised in Religa and Lester, 2016 and Lester and Religa, 2017), and secondly discussion and knowledge transfer sessions to familiarise partners with the principles and methodological approach to be used in developing the standards. Partners then developed their frameworks with the aid of relevant industry experts, and carried out consultation and trialling exercises with the respective practitioner and stakeholder communities (trailing was carried out through an exercise such as getting practitioners to carry out and discuss or report back on a detailed self-assessment based on the standards). Frameworks were finalised in the first few months of 2017. Throughout the process, partners also engaged as relevant with stakeholders in their industry sectors or professional fields as well as their national VET or higher education systems. A number of other outputs were produced during the project including a methodological guide, articles, web-based resources, and a training course for developers of competence standards; these are available on the project web site, www.comprocom.eu.

The approach to conceptualising and describing competence adopted and promoted in ComProCom can be summarised as:

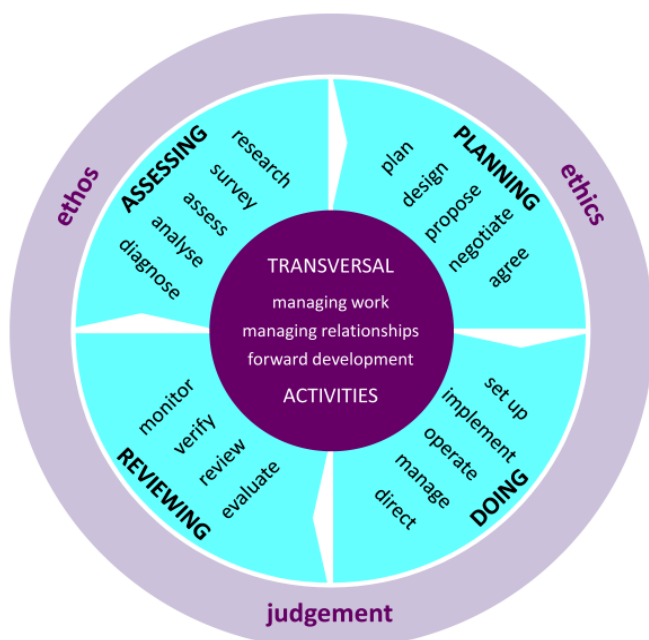
- External or activity-based, as described in the introduction; i.e. essentially having a focus on key work activities, as opposed to the knowledge, skills, attributes or behaviours of individuals. This was regarded as reflecting the definition of competence adopted in the project, 'the ability to do something successfully or efficiently', taken from the Oxford English Dictionary.
- Applying across a whole professional or occupational field, rather than to a specific role or set of roles. In principle, each set of standards was designed to apply to all practitioners in the relevant field without a 'core and options' or similar structure, by looking for common standards of practice rather than necessarily describing tasks and functions.
- 'Centre-outwards' in approach. This means starting from activities that are core to the profession or occupational field, rather than by using a functional analysis or similar approach to attempt to define all the roles and functions it can cover (Lester, 2014). An illustration of a centre-outwards model is provided by heritage conservation, one of the first British professions to develop standards of this type (Icon, 2007). In the Icon framework the primary work of conservators is conceptualised as research and assessment; planning conservation measures; implementing

conservation measures; plus transversal activities such as managing work, continuing development and promoting a professional ethos. This can apply for instance to conservators who carry out physical treatments, implement protective and environmental control measures, manage the care of the entire contents of a large collection, advise on the protection of a particular class of objects, or undertake activities that are more educative and extension-oriented; it is also applicable to different specialisms, for instance working with paintings, books, archaeological finds or the fabric of buildings.

- A recommended structure based on (1) the central activities associated with the field, in the form of either a project cycle or a small number of high-level themes (as indicated above for conservators); (2) transversal activities, such as work management, relationship management and forward development; and (3) the ethos and ethics of the field. A representation of this structure is given in Figure 1.
- Precise but concise presentation, with three levels of depth (the main themes as in Figure 1, key activities, and critical factors and/or explanations), an expectation of no more than a dozen pages or so to describe practice across the entire field, and the use of easily-understood, active language.

Further detail is provided in the project methodological guide (Lester, 2017b) and final report (ComProCom Partnership, 2017).

Figure 1. The ComProCom cyclic competence model.



The aims of the project were local and specific (to support partners to create usable, profession- or industry-supported frameworks for their specific fields) as well as European and general (to produce an improved approach to describing professional competence). At the general level, expectations were relatively modest; a realistic aim was to offer a simple and conceptually robust definition of

'competence' (based on 'the ability to do something successfully or efficiently' as previously mentioned), backed by a model and development methodology that would enable this to be articulated in a way that could underpin or complement a range of different approaches to VET, professional formation and licensing or accreditation. Longer-term, this might be seen as both an alternative to more role-specific approaches to describing competence, and a pragmatic tool with Europe-wide application. It was also intended that the project would demonstrate an alternative to the British functional model while still being based on practices rather than directly on skills, knowledge or attributes.

To be successful within a national or supranational system, a competence model needs to have validity, utility, and support within the profession or industry for which it is designed. Particularly where it is intended to engage with national structures, it also needs to be compatible with the rest of the VET or professional preparation system. The next two sections explore this specifically in the context of the Greek and Polish examples, which are of particular interest for two reasons. Both focus on occupational fields that are of increasing importance nationally and internationally and can be considered emerging fields of work, while lacking any formal definition as occupations or professions. Secondly, both countries currently have national systems of occupational standards that are loosely based on the older British approach as modified via the Mansfield-Schmidt model.

Competence standards in emerging fields: innovation management and management of social co-operative enterprises

The fields examined by the Polish and Greek partners were respectively innovation management and social entrepreneurship. Both can be considered emerging fields of work, as while they have longer histories in the partner countries and elsewhere, as described below they have recently become the subject of significant attention from an economic viewpoint and from that of the need for appropriately skilled personnel.

Innovation management is concerned with bridging between science and the economy, supporting the flow of knowledge from research centres to enterprises and the efficient implementation of new solutions (whether concerned with products, processes, organisation or marketing). It involves among other things enabling the former to exploit their research and inventions, and the latter to access, build upon and commercialise new findings. An obstacle to this process is the presence of competence gaps among researchers and inventors who have difficulty commercialising their outputs, as well as among enterprises who struggle to find, finance and commercialise innovations (Gwarda-Gruszczyńska and Czapla, 2011).

Innovation management is difficult to define as a profession or occupation, as it is typically carried out by people who are already established in various roles in enterprises, in intermediary organisations such as technology transfer centres, business incubators and innovation centres, and in research institutions. In enterprises these may include general managers or heads of strategy, product managers, research and development specialists, marketing specialists, human resources managers, or owner-managers in smaller enterprises. In research and intermediary organisations they can include researchers themselves, educators, consultants, and specialists in commercialisation, marketing and business development. Innovation management has some of the characteristics of a nascent profession that is creating its space between adjacent fields (cf. Abbott, 1988), but it is

perhaps better thought of as an interdisciplinary field that will increasingly impinge on the activities of people in different occupations and sectors. These factors make it difficult to assess, without carrying out extensive primary research, how many people have significant involvement in innovation management, although an order-of-magnitude estimate suggests that overall there are several thousand organisations and a minimum of perhaps 10,000 individuals requiring innovation management competence of some form in Poland.

As will be discussed in the next section, Polish occupational classifications and professional standards focus on occupational roles; some of these are relevant to innovation management (e.g. 'Specialist in the commercialisation of technologies'; 'Specialist in market analysis and development'; 'Product manager'), but none cover the full field. The centre-outwards approach as discussed earlier enables innovation management to be considered as an holistic field with a central purpose and ethos, rather than through trying to construct a largely artificial role such as 'innovation manager'. This approach therefore proved attractive for developing a description of the entire field, which was carried out using the project methodology described in the introduction (and see Religa, 2017). Feedback indicates that the resultant framework has provided a good representation of the field, it adapts easily to the purposes of self-assessment and identifying development needs, and it can be considered the first successful attempt in Poland to produce a set of standards for a broad, interdisciplinary field. Some issues were also highlighted, including a preference for more concrete and detailed descriptions of activities and functions by the commercial sector, and the fact that any particular occupational role would not be likely to encompass all the standards. The partner organisation is currently using the framework to aid development of its own staff, and will subsequently review it for wider use.

Social enterprises combine entrepreneurship with societal goals. There is no accepted common definition internationally, so they can range from co-operatives with charitable status through to private enterprises with an overriding social or environmental purpose. In Greece, specific forms of social enterprise were defined in legislation introduced in 2011. Since then social entrepreneurship has been promoted in line with European Union policy, and more recently as a potentially more sustainable mode of entrepreneurial activity and a means to alleviate persisting high levels of unemployment. Between 2013 and 2015 a number of large-scale, regional, co-funded programmes were launched to encourage and support social entrepreneurship, though their results were poor mainly due to poor planning. Many social enterprises in Greece are currently facing severe viability problems that to a greater or lesser extent have to do with a lack of basic knowledge, skills and experience related to management and entrepreneurship; it has been common to encourage people into this form of activity without too much attention to the skills and abilities needed (Koniotaki, 2017).

The Greek partner was therefore particularly interested to explore the competence profile needed for managing a social enterprise. The background research indicated that it is a highly demanding role that goes beyond the typical requirements of business management. Matters such as social and environmental concerns and participative leadership are priority issues for social enterprises. Taking into account that most social enterprises in Greece are, in common with other businesses, micro-enterprises with less than ten employees, the managerial abilities required must cover the specific needs of managing a small enterprise along with those relating to the social co-operative sector. The resulting combination of knowledge and skills are therefore somewhat more complex than those needed for the management of private enterprises. This takes issue with current state policies that

target socially vulnerable groups as potential social entrepreneurs, despite the vast majority lacking the relevant abilities. Thus, developing the framework challenged dominant perceptions about the prerequisites for a successful social entrepreneurial endeavour.

The development process for the framework generated an open and animated dialogue among actors in the social entrepreneurial community, who used their experiences to develop a final version that has received universally positive feedback. Trialling the framework revealed a consistent pattern of training and support needs among practitioners, indicating that it can serve as the basis of a systematic approach for identifying training needs as well as setting out the relevant role requirements. In summary, the framework is broadly endorsed by Greek social entrepreneurs and has the potential to inform policies of the Ministry of Labour (Directorate for Social Economy), the competent authority for social entrepreneurship, and the National Organisation for Qualifications (EOPPEP), the body responsible for occupational profiles.

In both fields, the development of competence or practising standards has improved the definition of the field, highlighted it as an area of activity relevant for policy, training and continuing development, and in the case of social entrepreneurship emphasised the high level of competence needed, contrary to popular (and policy) assumptions. Arguably, the conceptual approach to competence that was used is less important for this purpose than the fact that a credible body in each of the two fields has created a coherent set of standards and consulted on and tested them with practitioners and other stakeholders. However, in both cases two factors in the design of the standards have been relevant in achieving this aim. The first is that they take the form of standards of practice, i.e. describing what it is that practitioners need to be able to do, rather than for instance skills, sets of behaviours or a body of propositional knowledge. This approach provides a direct means of communicating the work of the field both in summary and in sufficient detail for operational purposes. Having a validated description of *practice* provides a strong basis for developing more detail in terms of what is needed for the content of training programmes, more so for instance than would be provided by studying the attributes and knowledge-bases of existing practitioners in the absence of a strong conceptualisation of what they need to be able to do.

The second factor, relevant to both areas but particularly to innovation management, is adoption of a centre-outwards orientation, which avoids attempting to define the fields by reference to distinct occupational roles. In the respective fields a minority of people involved might be described as professional innovation managers and perhaps a greater proportion as managers of social enterprises, but neither field is a primary occupation that would be supported by a formal VET or professional formation programme, nor a legally-protected profession that needs to have precise descriptions of functions that are reserved to it. In principle this allows for activities to be described through standards that are either universal in terms of applying to all relevant practitioners, or can be drawn on as appropriate to individual circumstances and working contexts.

Engaging with national competence frameworks

As discussed in previous papers (Religa and Lester, 2016; Lester and Religa, 2017), of the six project countries, three – Greece, Poland and the United Kingdom – have or had systems of occupational competence standards separate from VET curricula or qualification specifications. The particular case of the United Kingdom and the declining role of national occupational standards has been

discussed briefly in the Introduction. In Greece and Poland, models have been adopted that reflect some elements of the British approach as modified via the Mansfield-Schmidt model (Mansfield and Schmidt 2001); these have been articulated somewhat differently in each of the two countries, and have met with different reactions.

In Greece, interest in occupational standards was initiated through government policy on lifelong learning, beginning in the mid-2000s. A Common Ministerial Decision was published in 2006 on occupational standards, and during the period 2008–2010, 202 sets of standards (*επαγγελματικά περιγράμματα* or occupational profiles, OPs) were developed with funding from the then Community Support Framework; these related to occupations at EQF level 4 and below. So far this has been a one-off co-funded project, with no further development or opportunities for revision. The Ministerial framework (110998/8.5.2006 *Accreditation of Occupational Profiles*) states that the “objective of the development and accreditation of occupational profiles is the systematic analysis and reporting of the content of the occupations, as well as the analysis and reporting of the paths for the acquisition of the necessary competences”. This has been expressed through a common methodology and structure, with elements of both an external competence approach (an occupational description and key tasks) and an internal one (knowledge, skills, and personal competencies), along with details of education and training paths.

The main use of occupational profiles has been to accredit VET programmes, where programmes submitted to the competent authority (EOPPEP) have to correspond to one of the accredited OPs, and for licensing procedures for a number of technical occupations, where they have provided threshold standards in the form of necessary knowledge and skills expected to be applied in practice. However, OPs haven't been widely accepted in the labour market or VET system. They have remained static, as an institutional requirement for the accreditation of VET programmes or for underpinning professional accreditation and licensing, and they have failed to become established as a useful and practical tool for the labour market. Furthermore, OPs have received criticism about their need for updating, their structure, and the length and over-detailed nature of their content (on average they take up around 100 pages of text). While OPs were developed mainly to improve VET programmes, that objective has not been achieved due both to weaknesses in the OPs themselves and also to the overall institutional framework failing to support improvements. More recent developments that have taken place in lifelong learning policy and in relation to national and European qualification frameworks point to a need for revisiting the purpose of OPs and the methodology behind them.

In Poland, a broadly analogous model has been used since the late 1990s, also based loosely on the Mansfield-Schmidt approach. The current version of this model was introduced in 2012-13, with modifications to make it easier to map the resultant standards to the European Qualifications Framework and in principle easier to use them as a basis for designing qualifications. The basic structure identifies a small number of key tasks for the occupation, and maps them to major ‘competences’, described in terms of knowledge and skills, as well as to a set of personal and social competencies. Substantial additional information is included such as the definition of the occupation, the contexts in which it takes place, educational requirements, development prospects, and any relevant health or psychosocial matters. As described for the Greek model, the Polish one can be considered a hybrid between an external approach and an internal one. It is however considerably

more concise in format, with the overall description taking up typically 16 pages, and the competence standard itself comprising around half of that.

Polish occupational or professional standards (*Krajowy standard kompetencji zawodowych*) were an initiative of the Ministry of Family, Labour and Social Policy (MPiPS), defined around the Polish labour market classification (KZiS) to reflect the requirements of employers (Bednarczyk *et al*, 2014). The KZiS currently specifies 2,443 occupations (MPiPS, 2014), of which 553 have competence standards including 300 in the new format. Standards have been developed at EQF levels 2 to 7, with half the revised standards being at levels 6 and 7. Typically, each standard covers something closer to an occupational role than an entire field. It can be described as taking a role-level, bounded-occupation approach (Religa and Lester, 2016), though each standard is 'unitary' in the sense of not having different options or specialisms. The standards are advisory, in that there is no compulsion for them to be used in VET. Their use is however being encouraged as a basis for qualifications and VET programmes.

By focusing on innovation management, the project provided an opportunity to test the ComProCom approach without conflicting with an existing industry standard. Immediate differences included its centre-outwards rather than bounded-occupation starting-point; the breadth of the field covered; the focus on practice alone, rather than on knowledge, skills and personal competence in addition; and a more detailed description of practice in a document of similar length. During the project process, some concerns emerged including introducing another approach only a few years after the national professional standards had been reformatted; the lack of linkage with the EQF (the project approach emphasised writing standards to meet practice needs, rather than linking directly to qualification levels); and confusion between descriptions of practice and descriptions of skills. On the other hand, the relatively concise and uncluttered description of practice found favour with practitioners and was also commented on positively by the employment service, one of the main users of occupational standards. Nevertheless, simply to adopt the project model at a national level in Poland is at present likely to be too great a step away from the current, established format. However, the Polish partner has recently been commissioned by MPiPS to develop over a thousand professional standards within the national system, and notes the benefits of a centre-outwards rather than bounded-occupation approach and the broader focus on principles, standards and transversal activities rather than tasks and skills. The model is therefore likely to inform the evolution of the current approach rather than to become a replacement or alternative for it.

Contrasting the project model with current national approaches in both Poland and Greece, two immediate differences are apparent. One is that the ComProCom model provides purely a description of activities or practices, not the skills, knowledge or behaviours that underpin them. The second is that in using a field-level, centre-outwards orientation, it avoids trying to define occupations via discrete roles, although it can be applied according to need to fields that are broad and contain emergent or evolving roles, as well as those that are more narrowly defined. The majority of national competence standards, while they generally include at least an outline description of practice, also extend to at least a description of related knowledge and sometimes also skills, personal competencies or relevant behaviours. In principle this is intended to make them more amenable to use for developing curricula or training programmes, or specifying qualifications. However, simply appending knowledge and skills to practice activities is not generally a good way of developing a curriculum, as it tends to ignore how knowledge builds from general principles to more specific and

applied concepts, and how know-how, skills and techniques need to be built into the larger sequences of action that, particularly although not only for higher-level work, are necessary to underpin competent practice (e.g. from different perspectives Eraut, 2004 and Winch, 2014). The fragmentation of knowledge to fit descriptions of practice is particularly deleterious in fields that have a strongly 'vertical' knowledge-structure (Bernstein, 1999), i.e. where a deep understanding of underlying principles is needed in order to make sense of practice and to develop an adequate level of professional judgement.

The second matter concerns how occupational areas are defined. Many national systems use a bounded-occupation approach where the area is defined as a particular work role or set of related roles that can be described in terms of the functions or tasks involved in them. Areas may be defined according to a standard classification such as ISCO, ESCO⁴ or the national equivalent, or through the territories of existing training bodies or the coverage of current VET curricula. There is no assumption from this perspective that occupations do not overlap, but the overlaps are normally viewed as sharing functions and therefore competence descriptions. While this approach can be appropriate for some applications, such as where an occupation has clearly-defined legal boundaries, in many it will be too rigid; it is not always good at reflecting how real-world roles map out, how professional careers develop, and how roles change over time and across contexts. In contrast a centre-outwards approach starts from an identifiable professional or transprofessional field, and reflects its ethos and the key areas of practice that its members need to be proficient in. Overlaps, which in a centre-outwards model tend not to be defined functionally, are often characterised by bringing different perspectives to similar applications (e.g. highway development as seen from the perspective of an engineer, a planner and a landscape architect, or functional mobility from the perspective of an osteopath, an occupational therapist and an orthopaedic surgeon). By not attempting to define boundaries or detailed functions, this approach provides greater allowance for developing careers and changing (and unforeseen) contexts.

A question still arises as to how the 'centres' are decided on in centre-outwards descriptions, if not by reference to some form of occupational classification. An answer to this is hinted at in the notion of communities of practice, and demonstrated both by the German system of *Berufe* (Hanf, 2011) and by self-regulating professions in Britain and Ireland. In both cases fields become defined largely organically, typically over many years or even decades of evolution and negotiation between practitioners, employers and state or other stakeholders, even if the culminating process of formalising a *Beruf* (BIBB, 2014) or forming a professional institute (Lester, 2016) can be relatively rapid. Particularly in British and Irish professions (which operate largely outside of any state co-ordination), although also to an extent in *Berufe*, this leads to a more messy situation than the neat delineations imposed by occupational classifications, with for instance groupings of radically different sizes, significant overlaps, and sometimes subsets and specialist groups within larger fields; it is however usually better reflective of how work is actually organised and makes pragmatic sense from the viewpoint of organising professional or vocational programmes. As demonstrated by the two examples in the previous section, a centre-outwards approach avoids constraining the emergence and recognition of new or hybrid fields, a criticism sometimes levelled at both *Berufe* and self-organising professions as well as occupational classifications. In summary, a move is suggested away from aiming for a systematic and even coverage of occupational activity, as has been attempted

⁴ <https://ec.europa.eu/esco/portal/occupation>

in Britain, Poland and Greece, to a situation where standards are developed by communities of practitioners, employers and other interested parties to respond to identified needs.

Conclusion

The project ComProCom has trialled a particular approach to occupational or professional competence, based on external standards of practice that are organised around a centre-outwards view of professional or occupational fields. In addition to its original use for accreditation and licensing, this approach appears to have a good level of validity for applications that include giving better definition to emerging fields (including those that cut across different professions and occupations), and providing a source of evidence to inform education and training programmes. Importantly, for the reasons discussed in the previous section, it should not be seen as a replacement for a curriculum or training specification, or as dictating the content of one. Similarly, it does not translate directly into a qualification; the relationship between different sets of standards and individual qualifications will vary depending on the purpose, scope and breadth of coverage of the qualification.

At the current stage of development there is some evidence to suggest that the model, as refined through the project, is able to contribute to achieving greater commonality in the understanding and articulation of occupational or professional competence in Europe. There are at least three factors that support this, described below.

The first factor is that the model focuses on practice, rather than abilities, behaviours or attributes. On first examination this could be thought to run contrary to what is needed in professional formation and VET systems (cf. Cheetham and Chivers, 2005; Mulder, 2014), but its advantage is in providing a base description of a field of work and leaving open whether and how this is complemented by descriptions of factors that enable practitioners to become competent and act competently. In turn this supports various approaches to curricula, without imposing a specific model of 'competence-based' education or training.

The second is that in starting from a centre-outwards perspective, the model avoids making assumptions about parcelling occupations into categories for which standards are then developed. Although centre-outwards approaches are principally identified with field-level descriptions, there is not a direct relationship between the two and they can be used to support descriptions at different levels of abstraction (for instance lawyers in general, solicitors, patent attorneys). This in turn supports applications that fit with different national and sectoral contexts and priorities, while respecting how communities of practice have evolved and continue to evolve; there are no assumptions for instance that groups cannot overlap without sharing standards, or the presence of one set of standards in a sector (for instance for building surveyors) precludes or prejudices the development of another that overlaps with it from a different perspective (e.g. for architects or civil engineers).

The final factor is that the model does not assume any particular type of economy, labour market, or means of organising VET, professional formation, or licensing. This appears particularly important in the light of experience with the British occupational standards model both within Britain itself and via its adoption or adaptation in contrasting labour market and educational contexts. For application in a European context, this offers the potential for a common 'language' of competence to emerge that

does not depend on advocating any particular type of system, while being able to support policy reforms geared to establishing more open and transparent VET and qualification systems.

Authors

Dr Stan Lester has been a consultant, researcher and developer in professional and work-related education since 1993. He has worked with professional bodies to develop or revise professional standards, assessment and regulatory processes, as well as with projects to develop vocational and higher education standards, qualifications and frameworks in the UK and internationally.

Anna Koniotaki has been a researcher, consultant and policy advisor since 1996. Her main areas of expertise are research and evaluation of projects and programmes related to VET systems and policies, social policy, and the third sector economy. She has worked in numerous projects and for various organisations at national and international level.

Dr Jolanta Religa has been a researcher and trainer of adults in the Continuing Education Department of one of the Polish national research institutes (ITeE-PIB) since 1998. Her key areas of work are scientific research and implementation in continuing vocational education, labour market needs analysis, monitoring and evaluation of qualifications requirements; development of vocational qualification standards; and comparative research on continuing vocational education policies in the EU. She has been a coordinator and executor for over 20 international projects, including ComProCom.

Acknowledgements

ComProCom is a European Union Erasmus+ Strategic Partnership Project (2015-1-EL01-KA202-013960) comprising the Hellenic Agency for Local Development and Local Government (EETAA), Greece (the project leader); SBG-Dresden, Germany; the Irish Institute of Training and Development (IITD); the National Research Institute for Sustainable Technologies (ITeE-PIB), Poland; die Berater, Austria; and Stan Lester Developments, UK. Thanks are due to the other members of the partnership who contributed to the developments discussed in this paper, in particular Georgia Gonou (EETAA), Jens Hoffmann, Anke Menning and Sven Ebert (SBG-Dresden), Erol Koc (die Berater), and Sinead Heneghan and Angela O'Donovan (IITD), as well as Dr Georg Hanf (formerly of BIBB) who acted as a critical friend to the project and reviewed the manuscript. ComProCom was supported by funding from the European Commission's Erasmus+ programme, via the State Scholarships Foundation (IKY) in Greece. European Commission support does not constitute an endorsement of the contents of this article, which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained in it.

References

Abbott, A. (1988), *The system of professions*, Chicago, University of Chicago Press.

Allais, S., Marock, C. and Molebatsi, P. (2014), *The development of occupational standards in English-speaking countries*, Moscow, International Labour Organization.

- Bednarczyk, H., Koprowska, D., Kupidura, T., Symela, K., and Woźniak, I. (2014), *Opracowanie standardów kompetencji zawodowych*, Radom, ITeE-PIB.
- Bernstein, B. (1999), "Vertical and horizontal discourse: an essay", *British Journal of Sociology of Education* Vol. 20 No. 2, pp. 157-173.
- Brockmann, M., Clarke, L. and Winch, C. (2011), *Knowledge, skills and competence in the European labour market*, London, Routledge.
- Bundesinstitut für Berufsbildung (BIBB) (2014), *Training regulations and how they come about*, Bonn, BIBB.
- CEDEFOP (2009), *The dynamics of qualifications: defining and renewing occupational and educational standards*, Luxembourg, Office for Official Publications of the European Communities.
- Cheetham, G. and Chivers, G. (2005), *Professions, competence and informal learning*, Cheltenham, Edward Elgar.
- ComProCom Partnership (2017), *Developing professional competence standards: final report*. ComProCom project publication available from <http://www.comprocom.eu/products/> (accessed 3rd August 2017).
- Eraut, M. (1998), "Concepts of Competence", *Journal of Interprofessional Care*, Vol. 12 No. 2, pp. 127–139.
- Eraut, M. (2004), "Informal Learning in the Workplace", *Studies in Continuing Education* Vol. 26 No. 2, pp. 247-273.
- Fretwell, D., Lewis, M. and Deij, A. (2001), *A framework for defining and assessing occupational and training standards in developing countries*, Turin, European Training Foundation.
- Gwarda-Gruszczyńska, E. and Czapla T. (2011), *Kluczowe kompetencje menadżera ds. komercjalizacji*, Warszawa, Polska Agencja Rozwoju Przedsiębiorczości, s. 9.
- Hanf, G. (2011), "The changing relevance of the Beruf" in M. Brockmann, L. Clarke and C. Winch (Eds.), *Knowledge, skills and competence in the European labour market*, London, Routledge.
- Hodkinson, P. (1995), "Professionalism and competence", in Hodkinson, P. and Issitt, M. (Eds.), *The Challenge of Competence*, London, Cassell, pp. 58-69.
- Icon (Institute of Conservation) (2007), *Professional standards for conservation*. London, Icon.
- Koniotaki, A. (2017) "Management of social enterprises", in ComProCom Partnership, *Developing professional competence standards: final report*. ComProCom project publication available from <http://www.comprocom.eu/products/>, pp. 20-23 (accessed 3rd August 2017).

Le Deist, F. and Tutlys, V. (2012), "Limits to mobility: competence and qualifications in Europe", *European Journal of Training and Development*, Vol. 36 No. 2/3, pp. 262-285.

Le Deist, F. and Winterton, J. (2005), "What is competence?", *Human Resource Development International*, Vol. 8 No. 1, pp. 27-46.

Lester, S. (2014), "Professional competence standards and frameworks in the UK", *Assessment and Evaluation in Higher Education*, Vol. 39 No. 1, pp. 38-52.

Lester, S. (2015a), "The European Qualifications Framework: a technical critique", *Research in Post-Compulsory Education*, Vol. 20 No. 2, pp. 159-172.

Lester, S. (2015b), "Competence standards and frameworks: some lessons from the United Kingdom", *Edukacja ustawiczna Dorosłych*, No. 3 (90), pp. 132-141.

Lester, S. (2016), "The development of self-regulation in four UK professional communities", *Professions and Professionalism*, Vol. 6 No. 1, pp. 1-14.

Lester, S. (2017a), "Reconciling activity-based descriptions of competence with professional work", *Higher Education, Skills and Work-based Learning* Vol. 7 No. 4, pp. 381-393.

Lester, S. (2017b), *Professional competence standards: guide to concepts and development*, ComProCom project publication available from <http://www.comprocom.eu/products/43-methodological-manual> (accessed 3rd August 2017).

Lester, S. and Religa, J. (2017), "'Competence' and occupational standards: observations from six European countries", *Education and Training* Vol. 59 No. 2, pp. 201-214.

Mansfield, B. (1989), "Competence and standards" in Burke, J. (Ed.), *Competency based education and training*, Lewes, Falmer Press, pp. 26-36.

Mansfield, B. and Schmidt, H. (2001), *Linking VET standards and employment requirements*, Turin, European Training Foundation.

Ministry of Family, Labour and Social Policy (MPiPS) (2014), *Klasyfikacja Zawodów i Specjalności na Potrzeby Rynku Pracy*, Warszawa, MPiPS.

Mulder, M. (2014), "Conceptions of professional competence" in Billett, S., Harteis, C. and Gruber, H. (Eds.), *International handbook of research in professional and practice-based learning*, Dordrecht, Springer, pp. 107-137.

Mulder, M., Weigel, T. and Collins, K. (2007), "The concept of competence in the development of vocational education and training in selected EU member states: a critical analysis", *Journal of Vocational Education and Training*, Vol. 59 No. 1, pp. 67-88.

Religa, J. (2017) "Management of innovation" in ComProCom Partnership, *Developing professional competence standards: final report*, ComProCom project publication available from <http://www.comprocom.eu/products/> pp. 13-16 (accessed 3rd August 2017).

Religa, J. and Lester, S. (2016), *Models and uses of competence in six countries' VET systems*, ComProCom project publication available from <http://www.comprocom.eu/products/41-review-on-current-situation> (accessed 3rd August 2017).

Winch, C. (2014), "Know-how and knowledge in the professional curriculum", in Young, M. and Muller, J. (Eds.), *Knowledge, expertise and the professions*, Abingdon, Routledge, pp. 47-60.

Winterton, J. (2009), "Competence across Europe: highest common factor or lowest common denominator?", *Journal of European Industrial Training* Vol. 33 No. 8/9, pp. 681-700.

Wolf, A. (2011), *Review of Vocational Education – The Wolf Report*, London, Department for Education and Department for Business, Innovation and Skills.