Sequential schooling or lifelong learning? International frameworks through the lens of English higher professional and vocational education

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Abstract

Three major international frameworks - the International Standard Classification of Education (ISCED), the Framework of the European Higher Education Area (F-EHEA) and the European Qualifications Framework (EQF) were examined in the context of English higher work-related education. The ISCED and F-EHEA are based primarily on the assumption of a sequence of education, while the EQF is concerned more purely with level of achievement. Particular problems are noted with assumptions contained in the ISCED and its definitions of formal and informal learning, which do not reflect the reality of professional education; as previously reported by Hippach-Schneider et al in relation to Germany, these mean that equivalent achievements in different systems can be classified differently, leading to under-reporting of individual achievements, a lack of comparability in international statistics, and potential for policy distortion. As a general conclusion, international frameworks need to take account of patterns of learning that take place outside of formal institutions and throughout life, but which lead to equivalent outcomes. Nevertheless it is not adequate to substitute assumptions based only on the level of achievement.

Introduction

Over the last two decades there has been a growth in the use of global and regional international frameworks that classify or position educational programmes and qualifications. These frameworks have a difficult task in striking a balance between respecting the diversity represented by different national traditions, and promoting convergence or at least common understandings to support identification of comparable achievements and where relevant to aid efficient workforce mobility. A particular issue is that frameworks at national and international level embody particular perspectives and definitions that can lead to difficulties of compatibility and interpretation both between different frameworks and between the frameworks and the systems to which they are intended to apply. Differences in approach can be seen between frameworks based on a perspective of learning throughout life, concerned principally with the outcomes of learning and their relative complexity, and those that assume progression along an incremental educational pathway, concerned with the sequence and duration as well as level of learning. This paper uses the lens of British (and more specifically English) higher professional and vocational education to examine the International Standard Classification of Education along with the two major European frameworks.

Higher professional and vocational education in England

The idea captured in 'higher professional and vocational education' is not a particularly straightforward one to articulate in an English context, as it cuts across several different parts of the

education and qualifications systems. The intention is to encompass work-related education and training that leads to certification or qualified status at higher education or equivalent level, i.e. level 4 and above in the English system (level 5 and above in the European Qualifications Framework, the EQF). This includes provision in higher education, in the upper levels of the vocational qualifications system, and training and recognition by professional bodies. There is no simple term that immediately conveys what is meant; descriptions have included vocational tertiary education, higher vocational education, and higher vocational education and training (higher VET or HVET), although these are typically used only to refer to part of what is described above.

English higher education and training can be divided into three main strands, based on the organisation responsible for validating the qualification rather than delivering the programme. Higher education (HE) is distinguished by qualifications being awarded by a degree-awarding institution, at present a university or college approved by Royal Charter, order of the Privy Council, or act of Parliament. The majority of higher education programmes are provided by the institution awarding the qualification, but there is also a significant level of validation and franchising of programmes to colleges and to a lesser extent companies that do not have their own degree-awarding powers. Qualifications (but not programmes) within this strand are relatively homogeneous, and follow principles agreed between the sector and the Quality Assurance Agency for Higher Education (QAA).

The second strand can be described as higher vocational education and training (HVET), although this term is sometimes used to include vocationally-oriented higher education. Qualifications within it are awarded by vocational awarding bodies such as City and Guilds, Pearson (which awards BTEC qualifications), and OCR; there are around 160 of these in total, although not all award qualifications at higher levels. Awarding bodies do not normally run programmes themselves, but authorise others (most commonly further education colleges and training organisations, but also universities and employers) to offer their qualifications. Although this strand is largely regulated by the Office of Qualifications and Examinations Regulation (Ofqual), there is no standard pattern of qualifications within it, and each awarding body has its particular suite of certificates that - within the overall rules set by Ofgual - have their own titling conventions and structures. Included here are qualifications that can be achieved by assessment alone rather than requiring a course to be followed; these include National Vocational Qualifications (NVQs) and their successors that are based on assessment of competence in the workplace, as well as various qualifications where the examinations or other assessments can be taken without having to follow a course. An attempt was made in 2008 to introduce standard titles based on definitions of size (as a credit value based on typical study time) via the former Qualifications and Credit Framework (QCF), but this conflicted with some conventions already in use and has now been abandoned. The only HVET awards with a high level of recognition across sectors are the long-standing Higher National Certificate (HNC) and Diploma (HND), both at EQF level 5 and now in England the responsibility of Pearson. Since 1999 it has been possible to compare qualifications in this sector with those in higher education using a common set of levels; Table 1 indicates the equivalences between the levels of the two major English frameworks, the EQF, and the Framework of the European Higher Education Area.

The third strand consists of qualifications and qualified status awarded independently of the above arrangements, most notably by professional bodies. The UK has a long-standing tradition of professional associations and regulators that award a licensed or qualified status, which depending on the specific field can be required in order to practise, confer significant labour market benefits, or

simply act as a marker of achievement and commitment. These accreditations or licences are not qualifications in the educational sense and are generally denoted by award of a title such as Solicitor, Registered Nurse or Chartered Engineer, or a membership designation such as MRCVS (veterinary surgeon) or MRTPI (town planner), which is only kept so long as the holder remains on the register or in membership. However, most require rigorous assessment and some are achieved after following a course set out by the professional body, which can follow on from or be independent of higher education or higher VET. Although there are no common regulations for the award of professional titles and memberships, acquiring this form of validation is essential or highly desirable in parts of the British labour market and an end goal of many higher education and VET students.

Table 1. Levels in English and European qualification frameworks

European Qualifications Framework	5		6	7	8
Regulated Qualifications Framework (England, for qualifications regulated by Ofqual)	4	5	6	7	8
Framework for Higher Education Qualifications (England, Wales and Northern Ireland)	4	5	6	7	8
Framework of the European Higher Education Area	Short cycle First cycle		le	Second cycle	Third cycle

Three significant trends are apparent in this sector. One is the tendency for degrees and diplomas awarded by higher education institutions to substitute for higher-level VET qualifications (Lester, 2016). Factors contributing to this include, as mentioned above, a lack of easy recognition of qualifications in the VET system; the introduction of foundation degrees as work-related short-cycle higher education qualifications from 2000, partly displacing HNC/Ds; and a tendency for level 5 courses, including now foundation degrees, to be replaced by full degrees (ibid; Wolf et al, 2016). The surge in popularity of higher-level NVQs in fields such as management and business administration that took place in the 1990s has also gone into reverse, particularly as universities have adopted more flexible approaches to providing post-experience and work-based programmes. as discussed by Nixon et al (2006). HNCs and HNDs are now only quantitatively significant in business and administrative fields where they tend to be the qualification of choice for private higher education providers that lack degree-awarding powers, although they are still locally important in other sectors, particularly engineering and construction. Secondly, since 2008 there has been a change in policy first to provide public support for apprenticeships above level 3, and more recently to develop apprenticeships that include full degrees ('degree apprenticeships') and lead to professional recognition, while perhaps perversely not requiring apprenticeships at any level to incorporate a recognised qualification (Bravenboer, 2016). Finally, professional bodies have tended to adopt more rigorous procedures for granting qualified status, though in some cases also making a wider range of routes available to qualified level, including ones that bypass higher education or HVET qualifications (Lester, 2009). Taken together, these indicate a rising focus on university and professional qualifications at the expense of HVET ones, as well as substantial hollowing-out of level 4 and 5 provision (Wolf et al, 2016).

International frameworks and classifications: EQF, F-EHEA, and ISCED

The three most important international frameworks in relation to higher-level British education and qualifications are the European Union's European Qualifications Framework for Lifelong Learning (the EQF), the Framework of the European Higher Education Area (F-EHEA, often referred to as the Bologna framework), and the International Standard Classification of Education (ISCED), managed by UNESCO. These each use slightly different principles to classify qualifications and programmes.

The EQF (European Communities, 2008), as its name implies, is a qualifications framework rather than a framework for programmes. Its basic principle is that its levels relate to the outcomes represented by achievement of qualifications, not the stage, duration or sequence of education represented by the programmes that support them (*ibid*). On its own it says nothing about the amount of learning that a qualification represents, whether it is normally taken via a course in an educational institution or is purely an examination or assessment of competence, or where it might fit in national education and training systems; although by referring to the European credit instruments ECTS and ECVET it is possible in principle for qualifications to be given both a level (in the EQF) and a 'size' (in the credit system). Orthodox use of the EQF is that national qualifications frameworks are mapped to it and qualifications are given an EQF level via this national referencing rather than directly, although other, unofficial approaches to referencing have been attempted with greater or lesser degrees of success (Zahilas, 2011; Lester, 2015a). The EQF has both a classificatory and a reforming aim, to aid comparison of qualifications within Europe and to encourage a focus on the outcomes of learning rather than the length or sequence of programmes.

The Bologna framework (initiated in 1999, see Bologna Working Group, 2005) differs from the EQF in being based on a sequence (or set of 'cycles') of programmes at different levels, reflecting the familiar progression of bachelor's, master's and doctoral degrees, and described as representing respectively three, two and three years of full-time higher education. While the framework has a set of outcomebased level descriptors analogous to those used in the EQF (the 'Dublin descriptors', ibid pp. 193-197), a programme only corresponds to the relevant cycle if it also represents the required stage and duration of learning. A 'short' cycle fits within the first cycle for two-year higher education programmes (such as the British HND or foundation degree, or the French Diplôme Universitaire de Technologie), and a 'partial' short cycle is sometimes referred to in relation to one-year programmes such as the HNC or Certificate of Higher Education. The framework is less able to reflect programmes of short duration that fit higher up the spectrum of levels, for instance university professional diplomas equating to the final year of a degree, or short postgraduate certificates. Like the EQF the Bologna framework has had a reforming as well as a classificatory aim, although its effects have been felt more in countries such as Germany that have had a tradition of initial programmes leading directly to the master's level, rather than in Britain where the bachelor'smaster's-doctoral system is loosely compatible (QAA, 2000). There is partial compatibility between the two European frameworks in that short-cycle, first-, second- and third-cycle qualifications generally map respectively to levels 5, 6, 7 and 8 in the EQF, although the EQF supports a wider range of qualifications compared with those that would be recognised in the Bologna framework, and as described above it does not have a dimension representing duration or sequence of learning.

The International Standard Classification of Education (ISCED) is a system of levels and categories used to facilitate nominally comparable international education statistics, developed by UNESCO in

1976 and updated in 1997 (ISCED-97) and 2011 (ISCED-2011, see UIS, 2012). In particular, the 2011 version revised the categories and definitions at higher education level parallel with those of the Bologna agreement: ISCED 5 is broadly comparable with short-cycle higher education, and 6, 7 and 8 with bachelor's, master's and doctoral programmes respectively. The ISCED is in principle based on programmes rather than qualifications, but the mapping of programmes to it is a matter of negotiation between individual countries and the UNESCO Institute for Statistics (UIS) with the aid of a standard guidance tool (UIS, 2015). At the higher levels, the ISCED can be considered closer to the Bologna framework in the way it classifies programmes than to the EQF, although some countries (including the UK, Austria and Germany) have negotiated the inclusion of some higher VET qualifications. A distinction is made between the existence of a programme at a particular level and a full achievement of the ISCED category, so for instance while the HNC is regarded as fitting in category 5, on its own it will not result in achievement being reported against ISCED 5. A particular anomaly within the ISCED when compared with the two European frameworks is that it includes a category, 4, for programmes that are described as 'post-secondary but not tertiary'. This appears to be used to include some programmes at higher levels (i.e. EQF 5+) that are achieved outside of higher education institutions, as well as others that are not necessarily at this level but are taken after the completion of secondary education.

While the ISCED is purely a classificatory tool and has no reforming aim, the assumptions behind it can nevertheless exert a subtle influence on policy. As a classification of educational achievement, it focuses on the formal education system rather than for instance on professional and industry courses or certification. Hippach-Schneider *et al* (2017) describe how in Germany higher vocational qualifications within educational institutions are recorded in the ISCED, while achievement of the same qualifications through industry training bodies or via direct entry to the examination are not. Given that Germany has a strong tradition of higher-level vocational achievement (typified by the Meister qualification, positioned in the national qualifications framework at the same level as a bachelor's degree), this has resulted in an apparent shortfall of people qualified at degree or equivalent level in comparison with other advanced industrial nations. According to Hippach-Schneider *et al*, this has been a factor contributing to policies that have sought to expand mainstream higher education at the expense of the highly-regarded vocational route.

The problematic concept of tertiary education

The idea of three phases of education – primary, secondary and tertiary – is one that has gained international currency via UNESCO, including through the medium of ISCED. However, its problematic nature is illustrated particularly well in relation to the English (and wider UK) education system. While the UNESCO conception is based on stages of education, it also has a connotation of level, so that 'tertiary' tends to refer to higher education or HVET (i.e. EQF level 5+) rather than all education that takes place after the secondary phase. This leads to the somewhat contradictory notion of 'post-secondary but not tertiary' in the ISCED.

The term 'tertiary' is used neither widely nor consistently in the UK, and in a British context it can be understood in several different ways. Traditionally, tertiary education referred to the phase following compulsory schooling but not including higher or adult education. In the English education system there is a marked break at age 16, from 1972 the point at which young people were allowed to leave full-time education (since 2015 it has been compulsory for under-18s to remain in some form of

education or training, which can include an apprenticeship or a job with approved training). The principal choices at this point are to follow a general/academic path leading to the General Certificate of Education at advanced level ('A-levels'), take a full-time vocationally-oriented course in a school or (more usually) a further education college, or enter an apprenticeship, traineeship or other form of employment with training, which will usually include part-time study at a college or training centre. The main institutions involved in this phase are schools; sixth form colleges (institutions that specialise in 16-18 education, largely though not exclusively focussed on A-levels); further education colleges (institutions concerned principally with VET for all ages from 16 onwards, though often with some A-level and other general education provision); and private and voluntary-sector training organisations, many of which are contracted to provide publicly-funded courses. Historically in some local government areas there was a policy of combining all 16-18 provision into single institutions, the 'tertiary colleges' (see http://tertiarycolleges.org.uk/about/), now regarded as part of the further education sector; in a few of these areas this tertiary system still exists albeit with competition from other types of provider.

Beyond this, it is possible to interpret 'tertiary' as referring to any education beyond age 16 regardless of level, use it in a similar way for 18+, or (roughly in line with the ISCED) restrict it to higher-level provision. A particular problem with classifying programmes in the UK is that there is a large area of provision for all ages from 16+ that is of 'secondary' level (i.e. EQF 4/English level 3 and below) but which takes place in the institutionally distinct and nationally important further education sector; in the ISCED this could be regarded either as secondary (category 2 or 3) or 'post-secondary but not tertiary' (category 4), while in Britain it is regarded as a phase distinct from secondary education. A problem with emphasising level is that it leaves further education as something of a shadow sector which is poorly understood not only internationally but also by much of the British public. Both Bathmaker (2014) and Wolf *et al* (2016) advocate using the tertiary label as a means of grouping the further and higher education sectors together without reference to level of provision, as is being done in Australia. In a British context this is eminently logical, although it raises the question of redefining an already confused term, and it may not translate well internationally when much lower-level vocational provision is regarded as the province of the secondary sector.

Distinguishing 'formal' and 'informal', 'vocational' and 'academic'

Two sets of terms that are widely used in classificatory systems are the traditional distinctions between academic and vocational learning, and the newer ones between formal, 'non-formal' and informal learning that are becoming used in Europe. Briefly, formal learning is described by CEDEFOP (2014) as taking place in a structured environment, being explicitly designated as learning, and normally leading to certification; non-formal learning as embedded in planned activities, intentional from the learner's viewpoint, and potentially leading to certification; and informal learning as resulting from "daily activities related to work, family or leisure" (p111). The ISCED definitions are more restrictive, so for instance non-formal education is still "institutionalised, intentional and planned by an education provider" (UIS, 2012, p11), but lacks certification or results in qualifications that are not fully recognised by the relevant national authorities. These definitions can be regarded as provision-centric rather than learner-centric, in that they emphasise the role of agents other than the learner in defining the formality of the learning; in contrast, from the learner's viewpoint self-organised and self-directed learning can have the greatest formality and significance, while it is possible to engage with qualification-bearing courses but gain no more than incidental learning (e.g. Gear,

McIntosh and Squires, 1994). They can be compared with the popular '70:20:10' model, which claims that 70% of an individual's knowledge comes from learning through workplace and other incidental activity, 20% from interaction with colleagues, supervisors and other informal helpers (still informal learning according to the above classifications), and 10% from events that can be described as education or training (Tough, 1979; Lindsey, Homes and McCall, 1987).

Examining these distinctions from a British perspective, least at the upper end of the qualification system no explicit distinction is made between learning that is 'formal', 'non-formal' or 'informal', nor to an extent whether it is 'vocational' or more purely 'academic'. While these notions have some utility for discussing what learning can be recognised through qualifications (or other means such as some professions' stipulations for continuing development), in terms of the outcomes of learning they are not particularly meaningful in the UK context (see for instance Eraut, 2000). NVQs were perhaps the first major British example of 'formal' qualifications that could be achieved through 'informal' learning, though as certificates of competence they were not easy to compare with degrees or with qualifications such as HNCs and HNDs (Brennan and Little, 1996); this was not helped by substantial differences in the concepts underpinning how higher education and NVQ levels were described. However, higher education has evolved particularly in the last two to three decades to provide the flexibility to accredit learning regardless of source. A bachelor's degree for example can be taken fullor part-time (including by distance learning) in a university or college; full-time but with a substantial proportion of learning taking place via work attachments, as in nursing and other health professions; through an apprenticeship-type structure, with integrated practical and theoretical learning (e.g. the 'degree apprenticeship', see BIS, 2015); or via an individually-negotiated route that may include significant (two-thirds or more) recognition of previous experiential learning, with the remainder of the degree achieved largely through practice- and project-based work (e.g. Lester and Costley, 2010). The principle is that the level, volume and significance of learning recognised through all of these routes is the same; to give any of them a different status on the grounds of being 'informal' would now be regarded as politically and ethically questionable.

The distinction between the academic and the vocational has on the other hand been embedded deeply in British education, and can be related to an historic elite system where at each stage of selection a majority of students were peeled off into less prestigious routes or directly into work, with the proportion going on to higher education not reaching 5% until the mid-1960s. For several decades efforts have been made to 'bridge the academic-vocational divide' at further education level (e.g. Tomlinson, 2004), generally half-heartedly and without creating structural reform, partly because of political protection of established general education routes and the failure to (re-)establish high-status vocational ones outside of limited areas; the Sainsbury reforms (BIS/DfE 2016) currently promise more, but are yet to be implemented. At higher levels progression from an elite higher education system to a mass one and now putatively to a universal one (after Trow 2005) has achieved significantly more in this respect, and could be described as moving towards closing the divide rather than bridging it. However, this has brought with it other issues, including diluting the practical and technical content of some courses to fit them into an academic structure, and creating potential new fissures based on the type of institution and the extent to which the degree is in an established academic or professional field.

In the English system, a 'vocational' label can be attached to the great majority of Ofqual-regulated higher qualifications and also (with a few exceptions) most higher education provision that leads to

qualifications at (English) levels 4 and 5. For full degrees there is no explicit distinction between 'vocational' and purely 'academic' programmes, either by title or by general agreement. It is possible to identify degrees that are designed to lead to careers in specific professions, that contain practice placements, or are designed for people in work, but these exhibit a wide range of characteristics and some have a strongly academic curriculum. Degree titles are largely generic; while degrees in some professional fields have specific titles, other vocationally-oriented programmes carry mainstream arts or sciences titles, and the only title that (currently) implies a vocational focus is that of foundation degree. There is also a broad consensus, supported by QAA (2014), that a degree cannot only be training for a profession or occupation but must provide more general intellectual development; therefore all degrees can be regarded as academic, even if their content is organised around professions' requirements or transdisciplinary principles (Gibbs, 2015) rather than academic disciplines.

Compatibility issues between the frameworks and the English system

The EQF, as a relatively open, lifelong-learning oriented framework, presents the English system with relatively few compatibility issues. The main structural issue is at the lower end of the framework, where there is no equivalent to English Entry levels 1 and 2 (QCDA, 2009). The presence in English frameworks of what can be interpreted as a subdivided EQF level 5 does not appear to be problematic, although in the preparatory work for the QCDA report it was noted that the bands of achievement represented by (English) levels 4 and 5 were narrower than those at the adjacent levels. and there was some debate about whether level 4 maps best to EQF level 4 or 5. A more subtle matter is how levels of achievement are described in the EQF, with the framework's representation of 'competence' (one of the three domains through which its levels are described) attracting particular criticism (e.g. e-CF 2010, Lester 2015a). More recently there has been an official determination to retitle this domain 'autonomy and responsibility' (Council of the European Union, 2017), although it is worth noting that the parallel domain in the Ofqual framework, 'autonomy and accountability', was dropped in 2015 as being not particularly helpful for allocating levels to qualifications. However, given that the EQF is not (officially) used to assign levels to programmes or qualifications directly this has not created any particular problems in an English context. Perhaps more relevant is the separation of the EQF and the Bologna framework, which appears to perpetuate a division between higher and vocational education regardless of level; in England this was in any case pre-dated by separate national frameworks for the two sectors.

The Bologna framework is more specific in the way that programmes are described in that it has a dimension of stage (the 'cycles') as well as one of level (the Dublin descriptors). Somewhat fortuitously, British higher education matches the framework fairly well (QAA, 2000), although there are anomalies such as the (post-agreement) use of the degree title for short cycle courses and a growth in four- and five-year programmes that lead directly to master's degrees. As noted previously, the framework also struggles to locate programmes that match the relevant level but do not fit neatly into one of the cycles. This potentially represents higher technical qualifications at levels 4 and 5 simply as staging-posts towards the first cycle, arguably undermining their value as qualifications in their own right. It also acts as a potential constraint to the development of provision – such as short programmes at level 6 geared to experienced practitioners who do not necessarily hold a level 5 qualification – that do not represent full cycles.

The main area of divergence between the EHEA framework and the realities of UK higher education is however not structural, but concerns the tacit assumption underlying the former that higher education consists of a sequence of programmes taken on a full-time basis and in strict order; reflecting the points raised by Garnett (2007), the presumption appears to be one of young, full-time students following programmes grounded in academic disciplines or professional entry-requirements. Despite a fall-off in part-time enrolments after large tuition fee increases in 2012, British higher education remains highly diverse, and a substantial proportion of its students are mature and parttime or work-based; as well as traditional degrees taken on a part-time or distance learning basis, this diversity is illustrated by the rise of work-based and work-integrated programmes for people already in the workforce (Nixon et al, 2006) and as an entry-route to employment (Lester, Bravenboer and Webb, 2016). A substantial minority of higher education involves people who are already in the labour market, and who can be considered continuing, returning or lifelong learners. Rather than the 3:2:3 full-time sequence underpinning the Bologna framework, more individual patterns are likely to become common. One such route might include a degree apprenticeship taken after leaving school; qualification in a profession at the end of the apprenticeship or shortly afterwards; a master's degree, with credit from the professional qualification and following on from it or a few years later; and a further qualification, perhaps a practice-based doctorate or a second master's degree or professional qualification in a more specialised area or in business or management, in mid-career. implications for the framework are not so much structural as a need to recognise that it must be compatible with emerging as well as traditional forms of higher education.

The ISCED has the difficult job of interpreting different and disparate education systems in a way that enables approximate comparisons to be made between them, for instance in reporting the level of achievement reached in different countries. This means that it is unlikely to show a particularly good match to any one country's system, although for reasons explained previously the current version maps reasonably well to most European higher education systems. As has been noted, the philosophy of the ISCED is closer to that of the E-HEA than to that of the EQF, and so it can be difficult to position vocational programmes, qualifications or examinations against it if they do not represent a substantial stage of education akin to one of the Bologna 'cycles'. In the official English ISCED 2011 mapping (UIS, 2014), only two types of HVET qualification are recognised at tertiary level: the HNC/D, and NVQs (at pre-1999 level 4 and 5), both allocated to ISCED level 5. The former require no further comment as they are well-understood mainstream qualifications. However, NVQs are now in effect legacy qualifications, as they ceased to become a distinct category of award after the QCF was introduced in 2008. Since then the 'NVQ' title has become an optional one for qualifications that are based on occupational competence standards and involve practice-based assessment, and Ofqual statistics do not distinguish 'NVQs' from other kinds of vocational qualification. To provide an indication of what is being omitted, in 2012/13 115,258 certificates were awarded at English level 4 and above in the Ofqual system (Ofqual, 2014). Of these, 48% were for small awards, and 11,681 for HNC/Ds. This leaves over 48,000 awards that may or may not be reported as 'NVQs', including diplomas for accounting technicians, legal executives, financial advisers, VET tutors, and managers.

The UK also has a tradition of vocational qualifications at levels 6 and 7 in management and in a few professional fields. The old NVQ level 5 that preceded many of these, introduced in the early 1990s, was perceived as equivalent to postgraduate or at least full degree level, and certainly higher in level than an HND; it was described in the original five-level NVQ framework as involving fundamental

principles and complex techniques, as well as requiring substantial personal autonomy and responsibility for "analysis and diagnosis, design, planning, execution and evaluation" (NCVQ, 1991). In the current Ofqual-regulated system a small but substantial number of these qualifications are present: Ofqual (2014) reports that of the residual 48,000 awards indicated above, 5,897 were at level 6, 4,730 at level 7, and 124 at level 8. Some of these are substantial qualifications and are taken after awards at the preceding levels, and can therefore be regarded as equivalent achievements to degrees at the relevant levels. However, according to the current mapping these will be reported (if at all) in ISCED category 5.

A more fundamental and larger-scale problem is present in relation to professional qualifications. As has been described, qualified status in a profession is not a qualification in the educational sense. However, it is common in many professions for British bachelor's graduates to complete their professional education and training outside of the university or HVET systems via routes recognised by the professional bodies. These are not regarded as part of the formal education system even if they involve attendance on a structured course. In law for example the most common pathway for law graduates is to take a one-year full-time Legal Practice Course or Bar Professional Training Course, often through a private provider and without leading to a separate qualification, followed by a traineeship; successful completion of both phases enables the title of Solicitor or Barrister to be conferred. In accountancy, graduates typically take a part-time course while in a training post, culminating in the examinations of one of the professional accountancy bodies; success in the exams (again not normally leading to a separate qualification) and achievement of the objectives required in the traineeship lead to award of a chartered title. In both instances the fully-qualified level is commonly viewed as equating to level 7, but as neither programme is recognised in the ISCED, holders will not be reported as having achieved a qualification higher than a first degree. On a lesser scale some professional bodies provide minority routes to qualification that bypass the higher education or HVET systems entirely (Lester 2009), which can result in a qualified accountant, surveyor, engineer or so forth not being recognised in any of the higher ISCED categories, in a similar way as Hippach-Schneider et al (2017) describe for accountants in Germany.

In summary, the fact that some substantial qualifications in the English system (and in others, as mentioned previously in relation to Germany) fall through the ISCED 'net' raises a question about the ability of the ISCED to represent educational achievement in a comparable way, particularly between countries where most accredited higher-level learning takes place within the 'formal' higher or tertiary education system and those where a substantial proportion does not.

Conclusion: beyond colliding paradigms?

The preceding analysis indicates that of the three international frameworks discussed, one is informed by a lifelong learning paradigm that is neutral as to the location, type, sequence or length of learning provided that it leads to achievement at a given level, while the others start from a sequential education perspective where stage and duration of programme are as important as level. As has been seen, the latter is more of an archetype than a realistic representation of how higher and further education systems operate and are developing, and it is particularly problematic when considering non-traditional patterns of higher learning. On the other hand, adopting the lifelong learning paradigm as a guiding model is also problematic, as is amply illustrated by the way the English VET system has developed over the past three decades with competing programmes of varying quality, a proliferation

of qualifications with little sense of comparability, and routes some of which have limited purchase for labour market entry (Wolf, 2011; CAVTL, 2013). *In extremis*, the sequential paradigm is a relic of an elite education model where courses were followed in strict order and even the longest sequence had been completed by the age of 25, while the lifelong learning one becomes something of a structureless catch-all where any form of achievement can be positioned against a framework level.

The implications for the Bologna framework and the ISCED are that they need to recognise how higher education and VET systems are developing, particularly in terms of non-standard programmes, professional qualifying routes, 'non-formal' and 'informal' learning leading to recognised qualifications, and development patterns over entire careers. This suggests taking on aspects of a lifelong learning perspective, but without becoming dominated by it: the idea of volume of learning remains important whether expressed as full-time equivalence or in terms of a credit value, as does that of sequence in the sense of the level and substantiality of relevant achievement needed (by whatever means attained) before starting on the next level.

While there are no particular implications for the EQF in this sense, there is a need to separate out VET that is geared to labour market entry and development to a point of 'occupational capacity' (Winch, 2014) from ongoing development that may be more individually- or contextually-driven in nature (Lester, 2015b). The 'pure' lifelong learning paradigm is appropriate for the latter, but the ongoing problems of the English VET system illustrate why it is much less so for the former. The greater variability of international systems at the lower VET levels, including differences in the age at which young people can start to specialise in a particular occupational field and the variable treatment of 'further' education, makes it much more problematic to develop an international framework for initial VET that is analogous to the EHEA framework. However, a language is needed in this sector that goes beyond the EQF and enables comparisons to be made and at least marginally more common structures to emerge.

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