Education, Assessment and Developing a Comprehensive Qualifications Framework

Tim Oates

February 2013

Conference paper – open
Tim Oates – February 2013

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Background
The purposes and management of assessment and qualifications have become
issues of increasing interest and attention. The emergence of modern education
systems has been the attention of considerable analysis (Archer M 1979; Green A
1990; Alexander R 2000; McKinsey 2007 & 2010), the emergence of modern
qualifications and assessment arrangements less so. However, attention has more
recently been given to two key areas related to qualifications and assessment: the
purposes of assessment arrangements, and the use of qualifications frameworks.
This paper links important overarching analysis on high-performing systems to the
development and management of assessment and qualifications arrangements.

**Assessment and qualifications 'arrangements' and assessment and
qualification 'frameworks'**
I use these two terms with care, throughout this paper. Many countries have highly
effective qualifications and assessment 'arrangements' without having an overt
'qualifications framework'. 'Qualifications frameworks' – often represented in 'system
diagrams' – have emerged as a relatively recent policy instrument (with notable
exceptions of long lived education systems such as that in France). After a burst of
interest by OECD after 2000 (Tuck R 2007) the EU Commission embarked on the
development of the pan-European EQF (European Qualifications Framework) which
has gained analytic and policy traction both in and beyond Europe (Castejon J-M,
Chakroun B, & Coles M (eds) 2011).

This paper explores some of the issues which determine the performance of
qualifications arrangements but also examines the characteristics of qualifications
frameworks.

**Understanding relations, not just objects; such as qualifications. The
importance of 'curriculum coherence' and 'curriculum control'**
With the development of high quality secondary analysis of the large transnational
surveys (PISA, TIMSS and PIRLS), certain key characteristics of high performing
systems are beginning to emerge (OECD 2010; Schmidt W & Prawat R 2006).
Schmidt and Prawat have made a fundamental contribution to explanation through
their notion of 'curriculum coherence'. Empirically grounded in TIMSS data, it moves
beyond looking at the character of discrete elements of education and training
arrangements, seeing 'coherence' as a beneficial set of relations between putatively
discrete elements.

This current paper supplements the concepts of 'curriculum coherence' and
'curriculum control' with concepts of 'control factors' and 'explanatory factors'.

'Explanatory factors' are often highly context-specific. For example, in the case of Finland, these include:

- It had a national curriculum for 120 years
- In the 18c it was not possible to marry without reading at random, a passage from the bible
- The climate (darkness during many daytime hours in the winter season) has created a tradition of reading and oral exchange
- Teachers are paid the OECD average but are highly respected members of society for a whole series of specific reasons
- It is a small country
- Finnish society has tended to be collaborative, homogenous and cohesive

It is difficult for policymakers to influence 'explanatory factors', not least since many of them are historical. By contrast, 'control factors' are amenable to policy formation and policy action. Coherence across the control factors is associated with high performing systems (Oates T 2010; Schmidt W & Prawat R op cit).

My previous 2010 paper 'Could do better' examined the application of Schmidt and Prawat's concept to the English setting:

> Transnational comparison suggests that 'Curriculum control' and 'curriculum coherence' are vital for understanding how other nations have developed and managed national curricula and national assessment arrangements to good effect. The weight of evidence from transnational comparison is that a certain degree of curriculum control is necessary (that this need not be associated with 'top down' control or control exercised exclusively by the State) and that this control should be directed towards attaining 'curriculum coherence'. The analysis in this paper shows how curriculum control is necessary, but can be enacted in very different ways – some systems emphasise high levels of teacher qualification, others emphasise tightly controlled curriculum materials, and so on. An analysis of 'control factors' appears below. Policy utilising a different emphasis across the different control factors is evident in different jurisdictions – all to achieve the same high performance. The term 'coherence' does not carry the meaning typically associated with a 'broad and balanced curriculum' but is a highly precise technical term: its first sense: a national curriculum/national standards should have content arranged in an order which is securely based in evidence associated with age-related progression, and – its second sense - all elements of the system (content, assessment, pedagogy, teacher training, teaching materials, incentives and drivers etc.) should all line up and act in a concerted way to deliver public goods (Schmidt & Prawat op cit).

> More…/

A critical approach to transnational analysis suggests that we should use international comparisons to understand how different aspects of the system are subject to control and development, rather than engage in crude 'policy borrowing'. These 'control factors' exist in complex relations and balances:

1. Curriculum content (national curriculum specifications, textbooks, support materials, etc.)
2. Assessment and qualifications
3. National framework - system shape (e.g. routes, classes of qualifications)
4. Inspection
5. Pedagogy
6. Professional development (levels and nature of teacher expertise)
7. Institutional development
8. Institutional forms and structures (e.g. size of schools, education phases)
9. Allied social measures (such as that which links social care, health care and education)
10. Funding
11. Governance (autonomy versus direct control)
12. Accountability arrangements
13. Selection and gatekeeping (e.g. university admissions requirements)
14. Labour market regulation – in respect of vocational qualification

These are very useful categories for looking at other nations' policy arrangements. Studying the relation between them in different countries allows us to understand the operation of our own systems. It is important to understand that, despite comparatively low rates of pay (OECD op cit) Finnish teachers enjoy high social status, and all have a high level of formal qualification (to Masters level).The importance of teaching quality, approaches to learning and task design is strongly reinforced in the work of Hattie (Hattie J 2003), Wiliam (Black P & Wiliam D 1998), Watson (Watson A undated; Watson A & Ollerton M 2005) Andrews (Andrews P 2007; Andrews P 2010) and Stigler & Stevenson (Stigler & Stevenson 2006). This is an important factor in national success, amongst others. A country's national curriculum and its assessment arrangements – both its form and content – cannot be considered in isolation from the state of development of these vital factors. They interact. Adjust one without considering development of the others, and serious unintended consequences can flow (Green A 1997).

Oates T 2010 p13ff

Both elements of the term 'curriculum control' can be misunderstood.

The term 'control' has been misinterpreted (Alexander R 2011) as 'top down' control. However, it should be seen in a more subtle way. Schmidt's work suggests that a level of control must be exercised in a system in order to promote a necessary level of curriculum coherence. Once again, it is vital to recognise that a national curriculum and/or a framework of qualifications cannot, by themselves, guarantee coherence in the system. A system is regarded as 'coherent' when the national curriculum content, textbooks, teaching content, pedagogy, assessment and drivers and incentives all are aligned and reinforce one another. For this to be the case, a certain level of control is necessary. Crucially, Schmidt and Prawat's comparative work suggests that this level of control need not necessarily derive from top-down measures. It is more that the system must *exercise control*, not that individual agencies should *take control*:

'…our purpose in introducing alternative ways to govern curriculum…is not to advocate one approach or another. As analysis by Cochran-Smith and Fries (2001) indicates, disagreements about teaching and, by implication, curriculum, often divides along ideological lines, an outcome that occurs no matter how pragmatic the veneer. A functional approach, by specifying in advance the criteria that an effective curriculum-governance system must meet, lessens the tendency to judge these systems in terms of the political values they represent (e.g. regulation vs. deregulation, public interest vs. private interest…' (Schmidt W & Prawat R op cit p656).

Their analysis suggests that the existence of curriculum coherence through curriculum control is essential; the precise institutional and system form to achieve this can vary. The list of 14 policy control-factors should be interpreted in the light of this.

Likewise, 'curriculum' should not be interpreted in a narrow sense – i.e. pertaining only to 'curriculum content'. Although Schmidt does indeed focus on conceptual sequencing in the content of curriculum standards (Schmidt W, Wang H and McKnight C undated), his analysis reinforces a broad concept of 'curriculum', such as the concept developed by Eraut (Eraut M 1975):

Aims
Content
Pedagogy
Assessment
Evaluation

To this should be added the constructivist notion of the 'enacted curriculum' (Stenhouse L 1975; Eliot J 1991) – that the curriculum is formed operationally, in practice, in the actions and events within the learning context.

Schmidt & Prawat's and my own analysis (using explanatory and control factors) uses these expansive concepts of 'curriculum' and emphasises the interaction of factors shaping the curriculum. The lines of cause can go in both directions – for example, accountability arrangements can influence the form and content of the enacted curriculum, while decisions made by practitioners in respect of the form and content of curriculum (and thus outcomes) can exert pressure on the form of accountability. In other words: relations are important (Baskhar R 1979). The importance of 'curriculum coherence' is exemplified in the history of national testing in England.

National Assessment was introduced as part of the National Curriculum reform of 1988 (Gipps C, Clarke S & McCallum B 1998). The initial operational system assessed all learners at the ages of 7, 11 and 14, using a mix of internal (teacher) assessment and external tests. While teacher assessment was required in non-core subjects such as history and design & technology, external tests became established in the core subjects: English, Maths and Science (Stobart G 1999). The density of testing initially increased (to 2000), but more recently has decreased significantly principally in the light of operational breakdowns and adverse impact. External assessment is now focused on Maths and English. Public Examinations remain a focus of assessment at 16, typically in 10 subjects (see annex 1).

The issue I wish to pick up here is that of the narrowing influence, on the curriculum, of the use of the outcomes of external testing at age 11. The system originally was

intended to provide formative and summative information to learners, teachers and parents, and evaluative information on the performance of schools and Local Education Authorities (TGAT 1987; Kimberley K, Hextall I and Moon B 1989) – note the scale of the system: c23,000 schools in England; c150 LEAS; England population c53million.

The key issue is not so much the form of the tests, their measurement characteristics or the manner of their administration, but the way in which the use of the outcomes of the assessments have been used in national accountability measures. A narrowing of educators' focus has been widely and repeatedly reported in research:

Curriculum narrowing (Boyle B & Bragg J 2005; King K & Zucker S 2005):

> Overbearing assessment with adverse impact on teaching and learning (Black & Wiliam op cit; Pollard A, Broadfoot P, Croll P, Osborn M & Abbott D 1994; ARG & TLP 2009; Mansell W 2007),

> Specific problems emerging in relation to narrow drilling for tests (Pollard A, Broadfoot P, Croll P, Osborn M & Abbott D op cit; ARG & TLP op cit; TES 2005) and a failure of the assessment to provide policymakers with robust information on national standards (Oates T 2005; Statistics Commission 2005; Tymms P & Merrell C 2007; Massey A, Green S, Dexter T & Hamnett L 2003).

The Massey Report is interesting, since it detected erroneous 'inflation' in the results of national tests – suggesting that the distorting impact of accountability measures is insidious – the 'Texas Test Effect' (Statistics Commission op cit). The discrepancies between National Test outcomes in England, TIMSS data, and PISA data, remain a contentious issue (Whetton C, Ruddock G & Twist L 2007).

National accountability measures also have used the outcomes of public examinations (principally outcomes from GCSEs and deemed equivalents), and this has led to problematic narrowing and instrumentalism (Select Committee 2012) and practices such as a focus on pupils with a borderline grade (the key C/D boundary in accountability measures) leading to a neglect of more able and less able learners (McLone R 2012). More recently, Government has introduced a non-statutory indicator for school – the English Baccalaureate criterion (which emphasises high grades in a specific and limited set of subjects) and – in a high compliance school culture (Select Committee op cit) this has had an immediate and powerful effect on curriculum priorities in schools (Greevy H, Knox A & Pye J 2012), principally a narrowing of curriculum focus. While Government intends greater focus on outcomes vital for the individual, economy and society, the extent of the curriculum narrowing remains contentious, and the benefits and deficits of the 'narrowing criterion' not yet clear (note that the criterion has more recently been adjusted to include a wider range of arts qualifications and computer science qualifications).

This is not a catalogue of universally adverse impacts. The accountability arrangements have effected a concern for standards and equity (Barber M 2002; Hopkins D 2001; Tabberer R 1997; Powell R, Smith R, Jones G, Reakes A 2006; Doddington C, Flutter J & Rudduck J 1999) and have focussed attention on desirable outcomes (Chitty C 2004; Colwill I & Peacey N 2003; Oates T 2010). But there have been a raft of unintended consequences, as catalogued in the preceding text. The strength of these effects shows the potency of the links between assessment and accountability – emphasising Schmidt's commitment to coherence – the idea of alignment of purposes and effects across the 'control factors'. The narrow drilling for national tests, which has long dominated the teaching and learning of primary

schools in England (Mansell W op cit) is a prima facie instance of lack of coherence – it is at odds with the educational goals of the National Curriculum (Oates T 2010). This contrasts with the coherence which Schmidt detects in high performing jurisdictions.

This is NOT an argument against accountability. It is an argument for recognising that the use of the outcomes of assessment is a matter of extreme importance, both practically and ethically (Cambridge Assessment 2009). Developing high quality qualifications and assessment thus involves seeing curriculum coherence not only as a technical matter, but as a policy goal – the means of effecting control and managing these relations across the control factors are thus important and warrant the development of specific policy instruments.

Relations in the systems – lessons from the misleading discourse on A levels, in England
This section again focusses on relations in the system and the link between these relations and the form and content of specific qualifications. They are not independent; sophisticated policy considers them simultaneously.

There has arisen in discourse in England a strong lobby – of researchers and advisers – adopting a stance that A levels (with four AS subjects typically taken at age 17 and a further three full A levels at the age of 18) are narrow, dysfunctional qualifications which are typical only of England (Hodgson A & Spours K 2012). The international evidence suggests that this is highly misleading. Far from being unique, many countries have direct analogues of A levels. In these systems, there exist qualifications which are almost identical in form and scope to A levels – these systems rely on A level-type qualifications:

> **The USA** – Pupils in upper secondary do not get into university on the strength of SAT scores alone. Increasingly, pupils take three or four Advanced Placement examinations – these are subject-based examinations with a very similar scope to A levels.

> **Finland** – Pupils study around 9 subjects, but they are not examined in all of them. To matriculate, students are required to take four examinations – one of which is mandatory, in Finnish language. The exams are six hours long. The *curriculum* may be broader than in England, but the *examinations* are highly aligned to A levels.

> **Germany** – Is in a similar position to Finland. The German Abitur is broad in curriculum content, but students typically take three specialised examinations – again highly aligned to A levels.

> **Singapore** – Which uses A levels.

It is a 'cherry-picking myth' to see A levels as peculiarly English – and abandoning specialist examinations at 18 would be moving out of step with international evidence, not moving towards it.

Rather than A levels being peculiar, it is GCSEs (typically taken by 15 and 16 year olds) which are somewhat exceptional by way of international contrasts in practice – although, again, England does not stand alone. Some nations do have extensive high stakes external assessment at 15 (early entry) and 16; it is not *unknown* (for example Singapore, New Zealand, Mauritius, Pakistan, India), but it is *less dominant*

than is the parallel between A levels in England and A level style examinations elsewhere. Only in 2011 and 2012 has there arisen significant concern in England regarding the impact of external qualifications at 15 and 16. Voices previously championing GCSE as an egalitarian qualification (which has been regarded as giving access, for a wider range of pupils, to higher status certification than was available under the two tier GCE-CSE system (Kingdon M & Stobart G 1988) are now directed towards questioning the role of the GCSE in the system (Vaughan R 2012).

There are two, somewhat contradictory, directions of argument. The first of these is that with the incremental rise in the 'age of participation' to 18, there is no need for continuation of what was a 'school leaving certificate', developed in a time when a substantial tranche of the cohort progressed directly into the labour market at age 16. The second argument pulls the system in a contrary direction. Developments such as 'University Technical Colleges' (UTCs) admit pupils at the age of 14, placing them in vocationally-focussed programmes with general education integrated into or closely aligned with the vocational content. Policymakers associated with, or supporting, the UTC developments suggest that some form of certification at 14 would be appropriate, in order to facilitate transfer into the UTC 'track' (note: currently, 34 UTCs are in development, with 2 having been in operation for some years. There are c3000 maintained secondary schools in England and c220 Further Education Colleges).

These arguments are problematic in a number of respects. Firstly, the raising of the 'age of participation' is not being effected through a continuation of an entitlement, for all, to broad-based general education. Rather, a very wide range of routes is likely to be in place post-16, with various vocational options unlikely to retain key elements of general education such as humanities education. General education as a carefully balanced combination of foundational education in arts, sciences, humanities and broader personal capitals is likely to continue to stop at 16. Secondly, the somewhat unusual 'break point' at 16 should not be viewed simply through consideration of the GCSE alone. The GCSE should be considered in respect of its structural location. The English system possesses strength in the extent to which it has been able to ensure a high level of general education prior to specialisation in the 16-19 phase. There have been more recent arguments regarding the failure of the education system to sustain a rate of improvement comparable to the 'most improved nations' (Oates T 2010; DfE 2011b) but it is vital to recognise that many of the deeper causes for this lie in problems in the form and content of education in the primary phase (DfE 2011a; Oates T 2010; Alexander R (ed) 2010). The key point is this: ensuring that the majority of the cohort reaches a high standard in a broad and balanced curriculum by the age of 16 allows more intensive specialisation in the 16-19 upper secondary phase. This in turn feeds into highly intensive, high quality, short-duration first degree programmes in Higher Education – typically of three years duration, not the four years in systems which have more general, and less intensive, 16-18 education. In contemporary economic circumstances, with highly adverse pressures on public expenditure in respect of Higher Education, a shift to four year degrees would have significant negative consequences - including weight of debt on families and individuals, increased pressure on State expenditure, increased pressure on resources in HEIs due to a c25% increase in participation, withdrawal of young labour from the labour market for a further year during a period of rapid demographic shifts, reduction in the attractiveness of UK HE to foreign students and governments.

There are thus powerful reasons, by virtue of structural purpose and curriculum entitlement to retain GCSEs at 16, just as there are powerful reasons, for both

structural reasons and for reasons deriving from international comparisons, to retain A levels.

The 'problem' with public examinations and assessment – the rhetoric and public statements regarding the oppressive nature of A levels, GCSE and national testing (DfES 2004; Hodgson A & Spours K op cit) is thus not associated with its density – but rather the weight of its impact on the curriculum. Public examinations and National Assessment have become construed or rather 'constructed in consciousness' as elements in the system which require revision in form and content. This constitutes an error of 'attribution' (Papageorgis D & McGuire W 1961; Redelmeier D.A. & Tversky A 1996) (or perhaps, and more contentiously highly problematic 'objectification' of specific qualifications (Marx K 1964; Giddens A 1971); GCSEs and A Levels are seen as 'the problem' rather than the way in which they have been appropriated for use in system management and control – most significantly, accountability arrangements. This failure in 'attribution' is not limited to GCSE, where the '5 A*-C' measure and the 'English Baccalaureate' measure (pupils to attain at least grade C GCSEs or IGCSEs in English, two sciences, maths, history or geography and a language) (Education Committee 2012) are high in public discourse regarding negative impact on learning, but – almost unnoticed – is also true of A Level, where the focus on examination attainment has been a principal driver of the collapse of 'curriculum thinking' to 'qualifications thinking' – with the subsequent erroneous construction of A levels as 'the problem'. It is the way in which the qualifications are being approached rather than intrinsic qualities of the examinations themselves, again, consideration of relations in the system is vital.

A new breed of policy instrument: qualifications frameworks
Despite the relatively recent emergence of a large number of 'national qualifications frameworks', and of international frameworks such as the 'European Qualifications Framework' (European Commission 2013) and the 'Common European Framework of References for Languages' (Council of Europe 2011), they have emerged as important policy instruments.

More…/

In England, the original National Qualifications Framework was introduced by the Qualifications and Curriculum Authority in 2000, and was based on a five-level framework:

NQF – 2000 on

Level of qualification	General	Vocationally-related	Occupational
5	higher level qualifications (see note)		level 5 NVQ
4			level 4 NVQ
3 advanced level	A level	vocational A-level (advanced GNVQ)	level 3 NVQ
2 intermediate level	GCSE grade A*-C	Intermediate GNVQ	level 2 NVQ
1 foundation level	GCSE grade D-G	Foundation GNVQ	level 1 NVQ
entry level	certificate of (educational) achievement		

It quickly became clear that the apparent simplicity of a five-level system was marred by its failure to accommodate and describe (i) vital intermediate levels lower in the system (e.g. sub-degree qualifications) and (ii) the full range of qualification levels present in Higher Education. The framework was later elaborated (2004) into an eight level framework, with the express purpose of better describing Higher Education qualification levels. The problems of failure to accommodate recognised levels lower in the system remained. This is a failure of sensitivity. Analysis of the problem of 'framework sensitivity' was undertaken during the development work on the EQF, which examined the both the issue of 'sensitivity' and the contrasting 'prescriptive' and 'descriptive' functions of qualifications frameworks:

4.2.2. Accommodation or prescription
The intention to accommodate existing qualification arrangements, coupled with the need to gain purchase (credibility) with existing stakeholders, suggests that a framework should be sensitive to existing differences between qualifications; this includes situations where those qualifications are competing or in conflict (for example, despite similar content, two qualifications from different sources are of different status and ranking in the framework). To adopt this more descriptive position is to try to accommodate these differences and to locate the qualifications in the framework before attempting any rationalisation and alignment.

Adopting a more prescriptive position means refusing to admit qualifications until the contradictions have been resolved. A framework of this sort does not aim to be sensitive to existing relationships, but aims to assert a new, desired order of relationships between the respective qualifications.

The accommodation strategy suggests a larger number of levels and more generic descriptors, or use of an equating framework with no descriptors at all. The prescription strategy suggests a smaller number of levels with more tightly specified descriptors. In practice, most (national and transnational) frameworks have been a mix of the two approaches. In some national contexts, the need to gain purchase with the existing system has given rise to frameworks that have accommodated existing arrangements, but only at the expense of compromising the change agenda, leading to a confused and contradictory framework.

Careful, deliberate management of the accommodation and prescription functions of any framework is crucial to the success and sustainability of any qualifications framework used as an instrument of policy and practice. Getting the framework established may be a priority, but if general acceptance of the framework is a prime objective, this can lead to decisions about the form and nature of the framework (number of levels, nature of descriptors) which can compromise intentions regarding medium and longer-term rationalisation, credibility and sustainability.

Coles M & Oates T 2005 p44-45

The breakdown of the English NQF in respect of its sensitivity was accompanied by two further serious failings. Its precise status appears to have been misunderstood by the agency responsible for it.

Firstly, there was a claim that:

The National Qualifications Framework (NQF) helps learners to make informed decisions about the qualifications they need. They can compare the levels of different qualifications and identify clear progression routes for their chosen career.

QCA 2004 QCA/04/1325

This was a very strange claim. While the NQF may have served as a tool for overall system management and for operating qualification approval processes, it certainly was too general a framework to operate as a guide to learners. The route to becoming an architect (over ten years' of qualification) or the importance of gaining high grades in maths qualifications as a means of accessing key STEM occupations is not evident from any aspect of the NQF. It did not function as a guidance instrument for learners – and thus the claim is at odds with its status and purpose.

During 2004-5, there emerged an additional policy dimension to the NQF. Senior policymakers at the QCA were concerned about the number of qualifications present in national arrangements, and the putative confusion and overlap which this might represent. As a result of this perception, criteria additional to the NQF were introduced: the QCF (Qualifications and Credit Framework). These criteria were based on credit rating and qualification approval by the QCA (and later the dedicated qualifications regulator Ofqual) using 'guided learning hours', 'level' and 'area/sector' as principal criteria. However, the application of these criteria appear to have had exactly the opposite effect to the one intended: it led to an explosion in the number of qualifications:

A further articulation of 'coherence' which present in the policy imperatives of QCA relates to progression – the proposition that placing all qualifications in a common framework increases the coherence of progression routes. But there is little evidence that users of qualifications in different occupational areas of the labour market are interested in identical sets of levels etc. Employers are interested in relatively narrow pools of qualified labour within occupations, and when moving outside this in times of skills shortages, turn to related areas, not to broad recruitment from any sector. To suggest that system-wide coherence is a desirable structural characteristic runs counter to the sector-specific trends in economic development and to the activity of skills ecosystems (Payne J 2001). Such analyses suggest that system-wide imposed (restrictive) frameworks are more an expression of policymakers' sense of 'system-tidiness' than a concern to genuinely enable better economic, personal and social utilisation of skills, knowledge and understanding (Oates T & Coles M op cit). Yet the concept of 'coherence' has been used to justify continued increase in the purchase and application of national regulatory criteria in England. It is intriguing to contrast the 'coherence' argument with the objectives of one of QCA's predecessor bodies, the Schools Council, which was principally interested in innovation and responsiveness. Even in the context of a greater number of examining boards (then 8 GCE boards and 14 GCSE boards rather than the current 3 GCE-GCSE boards) the council stated its purpose as being '…to explore ways of improving the traditional Advanced level type of sixth form course and of adding to it new courses, both examined and non-examined, which will appreciably increase the ability of schools to offer curricula better matched to individual and general needs…' (Schools Council 1965 p9).

Notably, using the NQF, increasingly tight regulatory criteria and the underpinning notion of 'coherence' has not decreased the number of qualifications taken per pupil in statutory education, which has seen a steady increase since the 1980s (Mansell W op cit) – including an increase in non-statutory diagnostic and benchmarking tests prior to the age of 16. The state's growing concern regarding costs of public examinations now accompanies the concern for 'coherence'.

It can be argued that – for the relatively stable market of public examinations in schools – the stability of arrangements in the 1970s and 1980s gave rise to a desirably balanced set of incentives and drivers:

None of the eight GCE examination boards receives Government funds, although some do draw monies for non-examination purposes. All eight boards rely on the fees that they receive for the examinations that they conduct. Like any other large business they cannot afford to make a loss and competition between them renders it extremely difficult to make a satisfactory surplus. All eight boards are thus in a state of financial and academic competition. None can afford to set their fees too high. Similarly, none can afford to have their syllabuses viewed as out-of-date, uninteresting, or of excessively high standard; if they do then they will fail to attract candidates. If their syllabuses are viewed as too easy or superficial, then they risk not being recognised by some universities for entrance purposes and are thus devalued in a different way. It is this combination of the two forms of pressure upon the GCE boards that has led to the efficiency of the current system as a whole and the wide choice which it now offers to teachers.

While the boards compete with each other for the available candidates, they also co-operate on academic matters. The GCE secretaries – the senior administrative officers of the boards – meet regularly to discuss matters of mutual interest and to formulate common policies. Meetings of research, computing and administrative

staff are also organised on a regular basis. These exchanges constitute a major strength of the GCE system (Kingdon M 1991 p8ff).

Oates T 2007 p14

The data are salutary: the number of qualifications increased dramatically in the period 2006-2011, with the main increase being in QCF qualifications - with no commensurate reduction in other categories.

Qualification type	Number of qualifications available to certificate				
	2006/07	2007/08	2008/09	2009/10	2010/11
Advanced Extension Award	-	-	-	-	-
Basic Skills	100	100	100	100	100
Diploma	0	50	150	200	200
English for Speakers of Other Languages	150	150	150	150	200
Entry Level	350	300	300	350	350
Free Standing Mathematics Qualification	50	-	-	-	-
Functional Skills	100	100	100	250	200
GCE A Level	250	450	450	450	300
GCE AS	300	450	450	450	250
GCSE	450	450	700	750	800
General National Vocational Qualification	100	50			
Higher Level	400	500	550	600	550
Key Skills	350	350	350	350	400
National Vocational Qualification	2,100	2,000	1,900	1,750	1,600
Occupational Qualification	100	100	100	100	100
Other General Qualification	500	600	650	750	750
Principal Learning	-	50	100	200	200
Project	-	-	-	-	-
QCF	150	1,000	2,450	6,100	9,700
VCE Advanced Subsidiary Level	-				
Vocational Certificate of Education	100				
Vocationally-Related Qualification	2,650	2,950	2,950	2,750	2,400
Total	8,150	9,700	11,500	15,300	18,100

Source: Ofqual, the Register Database

The QCF essentially developed a set of criteria (a formula for awarding credit ratings) which allowed a much wider range of qualifications to attain legitimacy. Whatever the technical merits of this recognition, the significant growth in the number of qualifications remains in direct contradiction of the original policy aim.

It is worth quickly examining contrasts with the EQF (the 8-level European Qualifications Framework). The status of the EQF was made clear from the start of the initiative:

The EQF aims to relate different countries' national qualifications systems to a common European reference framework. Individuals and employers will be able to use the EQF to better understand and compare the qualifications levels of different countries and different education and training systems.

Agreed upon by the European institutions in 2008, the EQF is being put in practice across Europe. It encourages countries to relate their national qualifications systems to the EQF so that all new qualifications issued from 2012 carry a reference to an appropriate EQF level. An EQF national coordination point has been designated for this purpose in each country.

Shifting focus

The core of the EQF concerns eight reference levels describing what a learner knows, understands and is able to do – 'learning outcomes'. Levels of national qualifications will be related to one (or in some cases two or several, as relevant for the national systems) of the reference levels of the EQF, ranging from basic (Level 1) to advanced (Level 8). This will enable a much easier comparison between national qualifications and may facilitate the recognition of qualifications when people move to another country.

The EQF applies to all types of education, training and qualifications, from school education to academic, professional and vocational at each of its levels. The learning outcomes approach shifts the focus from the traditional system which emphasises 'learning inputs', such as the length of a learning experience, or type of institution to what the learner has acquired by the end of the learning process. This also encourages lifelong learning by promoting the validation of non-formal and informal learning, which reflects a wider shift within which the EQF is acting as a catalyst for reforms: the EQF does not aim at reforming systems (as does for instance the implementation of the European Area of Higher Education and implementing the EQF does not require any reform of the education and training system at any level. The EQF requires that all qualifications are described in terms of learning outcomes, but this doesn't mean that the systems awarding these qualifications need to be reformed. However, most Member States are now developing their own National Qualifications Frameworks (NQFs) based on learning outcomes. Several countries already have one in force.

European Commission 2013

As with NARIC arrangements (which provide intelligence to institutions on the content and status (equivalence and merit) of specific qualifications), the objective was to attain high sensitivity, to not disturb national arrangements but to provide a 'meta-framework' capable of relating different national framework. The aim thus was descriptive and not prescriptive. The use of the EQF for the design of national systems is, however, occurring in a number of states beyond the EU and this is being monitored for deleterious and beneficial consequences (Castejon J-M, Chakroun B, & Coles M (eds) op cit).

So to conclude on 'frameworks'. It is not essential to have a national qualifications framework; high performing systems can manage with arrangements which are not regulated by such a framework. High performance is characterised by appropriate and transparent routes, appropriate quality in learning in those routes; good equity and low exclusion; high attainment and good progression; mobility within the system; national and transnational recognition of outcomes; and reasonable efficiencies. Such a system may look 'untidy' from the outside – the 'levels', 'size' and content of qualifications may appear different in different sectors and different routes. Such apparent 'untidiness' is not necessarily associated with skill shortages, poor progression and so on – on the contrary, evidence from England, on the inappropriate pursuit of system tidiness' shows that these serious systemic issues continue to exist.

As with specific assessments and qualifications, a qualification framework must be 'fit for purpose', which requires adequate sensitivity in the framework, and demonstrably deliver explicit goods relating to attainment, skill supply and progression.

The lessons of the NQF and QCF in England are stark: clarity in intention and purpose is essential, particularly in respect of 'descriptive' or 'prescriptive' function. Sensitivity to social and economic purpose is vital. Again, a single policy instrument such as a qualifications framework cannot assume too great a responsibility for system reform – many control and explanatory factors are in play: relations count.

'Modularisation' and 'outcomes orientation' – two dominant movements in qualifications development

The 'outcomes' movement and 'modularisation' are examples of innovations where benefit needs carefully to be secured, and problematic consequences need carefully to be avoided.

Modularisation has been adopted widely in qualifications arrangements. Higher Education has, for centuries, assumed a modular form, since it has typically comprised discrete courses on specific topics or areas, in order to capitalise on the benefits of provision led by expert tutors and teachers. The modern development of modular provision – the emergence of more regularised development 'rules' (regarding size, level, credit rating, etc.) – has, in specific national settings, variously affected the form of broad-based school education, vocational education and training (VET) and Higher Education (HE).

By way of brief history, the origins of modern, overt modularisation can be traced to US arrangements for allocating 'credit' to college courses, both for the purposes of curriculum control (Russell R 1981) and for allowing 'transfer' of credit from one institution or locality to another. In England, modularisation of learning programmes gained prominence during the 1960s, in the context of the development of centrally-validated Higher Technical and Higher Education provision in the non-university Polytechnic sector. This had dimensions both of quality (curriculum control) and credit rating (ensuring comparability and portability of outcomes). At the same time, concepts of 'course credit' were being strongly promoted in the provision of the Open University in England – degree courses attained through distance learning and over varied periods of study time, depending on the circumstances of the learner. By the 1980s, modular provision was being explored in a range of projects in qualifications for 16-18 year olds, as part of A Level provision in England and Wales.

The development of outcomes-based vocational qualifications introduced a distinction between modularisation (focusing on structuring learning content) and unitisation (focusing on structuring attainment). In the former, learning outcomes are fundamental, but still typically conceptualised in the context of a defined learning programme. The duration and sequencing of learning still has a distinctive role. In the latter, concepts of standards and credit are pre-eminent, with deliberate disassociation of attainment from the location, duration and mode of learning.

Modularisation, accompanying an 'outcomes' orientation, promised the following:

In general education:

- Greater clarity in learning outcomes
- Early feedback on performance
- Gains in motivation and engagement
- Clear conceptual sequencing in material

It was not anticipated that it would also bring:

- A very significant increase in assessment load
- A truncation of learning processes
- Problems in establishing comparability
- A narrow focus on assessment objectives, contributing to narrow instrumentalism in schools and colleges

In vocational education and training, anticipated benefits included:

- Greater linkage between assessment and the specific requirements of work
- High specificity, precision and transparency in required outcomes
- Deliver reliable assessment by virtue of its validity
- Allow more flexible provision, meeting labour market needs, including reduced programme time and cost
- Recognition of prior attainment
- Qualifications which could be used across all VET routes

It was not anticipated that it would also:

- Introduce significant problems of reliability and comparability of assessment
- Reduce the employers' incentives to train, which are embedded in the internal economics of the 'classical' model of long duration apprenticeship
- Fail to recognise and potentially threaten the development of more subtle 'work process' skills vital to competence

Interestingly, when German researchers were commissioned by the Bund to investigate the merits and de-merits of modular, outcomes-based qualifications, the analysis focused not only on the characteristics of the qualifications, but also on the impact, that introduction in the German setting might have, on the delicate balance of drivers and incentives in the technical education system – it was viewed from a 'curriculum coherence' perspective (Reuling J 2000). As a result, implementation of an outcomes-based, qualification-oriented strategy has been far more circumspect and cautious, and the aims and purposes of VET better preserved in the German setting (Oates T 2013; Ertl H 2000; Ertl H & Hayward G 2009). The preoccupation with qualifications reform as a means of effecting system reform is characteristic of the English setting (Oates T 2013). In the German system of vocational education and training, the concept of 'beruf' (profession) continues to drive the design and management agenda regarding content and qualification. By contrast, in England, there is widespread evidence of 'curriculum thinking' having collapsed to 'qualification thinking'. Qualifications outcomes are regarded as the driver of processes, from system level monitoring to the focus of learning. Adoption of modular approaches in all routes (academic, general vocational, occupational) have encouraged a tendency towards an assumption that common processes can be used across all elements of the system. Not only resulting in spurious attempts at 'parity of esteem' (Oates T 2013) this poses a threat to the validity of curriculum provision for specific groups and routes. The notion, stimulated by concepts of universally-recognised 'credit', that the same qualifications can be used in different routes has drawn attention away from the very specific needs which are present in specific routes. For example, there has been an assumption that the same qualifications can be used in the following routes, despite the very different needs which exist in the respective areas:

- School-based VET (including work experience) as a component of compulsory general education

- Initial VET in a full-time educational setting
- Employment-based for young entrants to the labour market – focused VET for comprehensive labour market preparation
- Continuing VET for adult employed workers
- VET for unemployed adults

The assumption in policy in England is that a system of unitised qualifications can be the building blocks of programmes in these different areas, rather than distinctive and coherent curriculum development – in other words, a collapse of 'curriculum thinking' to 'qualifications thinking' (Oates T 2013). The salutary aspect of the English system is that skill shortages and other negative indications regarding system performance have persisted, some two decades after the introduction of a more flexible, outcomes-based qualification system. This again marks the importance of holistic consideration of the function of qualifications within the totality of control factors – linkages between content, pedagogy, quality of teachers and trainers, accountability and inspection etc. need to be considered as an interrelated set of arrangements.

The purpose of qualifications
The final section of this paper again asserts the importance of relations in systems. The most recent transnational analyses suggest the emergence of complex multiple purposes associated with qualifications: documentation of outcomes; capacity-building effects (professions/labour market function); learner-related effects; systems development and management; improvement strategy; and other more general effects. A fuller articulation of this list of purposes and functions was included in CEDEFOP's Changing Qualifications report (CEDEFOP 2010) and is reproduced below.

The purposes and functions of qualifications

	Function	Description
1	Documenting outcomes of learning	Providing accurate and fair accounts of knowledge, skills and wider competences. The technical function of qualifications relating to measurement. Principles laid down by assessment emphasise the importance of validity and reliability of assessment, including clear construct specification and adequate domain sampling.
2	Supporting specific, valid inference(s) regarding the candidates' possession of specific knowledge, skills and/or understanding	The nature of the inference that can be made on the basis of the assessment. The 'claim' made by the qualification is crucial here, and is conditioned by the form of reporting adopted in the qualifications – for example, the contrast between a qualification being oriented to a claim that a person has reached a particular general level of attainment, compared with a qualification which makes a very specific claim about the possession of a particular array of knowledge, skills and competences.
3	Signalling	Indicating that the individual has attained a specific level of education and/or training or has specific attainments. The signalling can relate to the very specific components of the qualification, or can extend to inferences made by selectors in relation to when and how the qualification was attained - for example, the distinction between attaining a degree as an adult learner rather than during the 19-25 age range; the distinction between gaining ostensibly the same qualification in institutions of different status.
4	Valuation of different aspects of knowledge, skills and understanding	Different weightings can be given, within the assessment and reporting arrangements, to different aspects of knowledge, skills and competences. This contributes to patterns of 'signalling' and 'valuation' in the system. This can be explicit – for example, where a qualification gives a differentiated report (for example, a profile)

		or implicit – for example embedded in the assessment system (for example where weightings for components are not made generally available such as when written outcomes are given a higher weighting than performance outcomes).
5	Discrimination and selection	Supporting inferences about attainment in order to split a group of people into those suitable for a specific role or programme and those who are not – essential to this is the predictive validity of qualifications – for example, differentiating between those who are likely to drop out of an educational programme and those who are less likely so to do.
6	Controlling flows into specific occupations and regulating the labour market	Historical instances of changing qualification requirements for the purpose of reducing or increasing the numbers eligible for practice in an occupation – raising levels has been associated with protection of the wage rates, status and/or entitlements of the existing members of that occupation; decreases have been seen where a state is anxious to increase numbers in a specific profession.
7	Empowering citizens	General notions of higher levels of qualification being associated with social, economic and personal goods – this can be associated with analysis of the poorer life chances of the less-qualified, with a notion of a nation being less effective due to a lower level of qualification in the population, with notions of equipping individuals with greater facility for international labour migration.
8	Re-aligning the control of professions	Where changes in qualification requirements have been used to affect relative shift the status of professions and/or sub-groups within professions, and to re-align patterns of autonomy and control, but within and between professions.
9	Measuring the level of skills and knowledge in the national, sectoral system	Where qualifications are used as a proxy for the volume of skills, knowledge and understanding, or the volume of learning that is occurring. National and international surveys and routine monitoring frequently have used this proxy measure.
10	Measuring the performance of the education system	Focuses on aspects of qualifications which may bear a relationship with performance – for example, time taken to acquire qualifications amongst those taking the qualifications, cost of different programmes linked to specific qualifications etc
11	Ensuring linkage of content of programmes (training) to work	A drive to link qualifications more tightly to the content and requirements of specific work roles – with the aim of increasing both validity and efficiency of the qualifications.
12	Recognising the actual knowledge, skills and competences required in performance	The process of qualification development being used as a means of analysing with precision the requirements of performance in a domain, feeding back into general understanding of the nature of performance and into the design of, for example, learning programme, certification requirements.
13	Fill gaps and update requirements in knowledge, skills and competences	Qualification (and re-licensing and/or professional updating) for the purpose of attending to emergent problems in professions that relate to knowledge or skills gaps (for example, communication skills in medics; ethical behaviour in financial services).
14	Guaranteeing the quality of provision for learners	Operating as a safeguard for learners electing to participate in programmes of assessment and/or learning (and to fully or part-fund participation). Learners may have very specific interest in the value of a qualification in relation to particular aims or goals (for example labour market progression, entry into a specific profession).
15	Guaranteeing the quality of provision for funding agencies	Operating as a safeguard for those funding (fully or in part) the programme of learning and/or assessment associated with a qualification. Those funding programmes may have very specific interest in the skills, knowledge and competences resulting from a qualification (for example, they are funding the qualification to improve specific productivity) or general interest (for example, where the country is concerned with general benefit from the use of state funding for qualification purposes – that is ensuring responsible expenditure of public funds).
16	Affecting the identity of learners	Associated with concepts of 'socialisation into a profession', or 'signalled' membership of a professional group. Attaining a qualification is can be associated with enhanced personal esteem and self-image, with many adult who return to study emphasising

		increased self-confidence as a result of attaining a qualification. Negative effects, for individuals, of failing in one's effort to gain a specific qualification should be acknowledged.
17	Effecting social integration	Linked to identity and to 'empowering citizens', the attainment of qualifications can enhance social integration – a sense of status and belonging – re-integrating individuals into more prolonged engagement with lifelong learning processes. As with identity formation, the negative effects, for individuals and society, of failing in an effort to gain certification should be acknowledged.
18	Conveying status on qualified individuals	Elevating in, in a general sense, the status of individuals. Related to 'signalling' above, qualifications can make visible and convey 'latent' or 'hidden' skills knowledge and understanding
19	Processes of recognition, accreditation and 'valuation' of prior learning	Making their skills, knowledge and understanding available to individuals, society and the economy. This feeds into the enhancement of learner identity, improved skill flow into work processes and improved utilisation of knowledge, skills and understanding within individual enterprises.
20	Managing competences within enterprises	Using qualifications as a contribution to means of managing development of knowledge, skills and understanding within an enterprise, and the distribution of knowledge, skills and understanding.
21	Offering inclusion	Using qualifications provision as a means of directing opportunity and benefit at specific social groups
22	Providing orientation, guidance	Qualification 'pathways' and qualifications 'frameworks' can provide clarity of purpose to individuals in respect of 'life plans' and aspirations, and can provide specific motivation for participation (deriving from notions of 'requirement' and 'benefit').
23	Controlling the education and training system generally and the qualifications system specifically	Qualifications are an instrument of control and an expression of the model of control in operation and the distribution of power between the State, professional bodies, social partners, assessment agencies, learner groups, etc. Issues of power and control are both legion and subtle, both nationally and internationally.
24	Enacting reform in education and training	The form and content of qualifications are amenable to ready change (by policy-makers, etc) and thus are often a 'first choice focus' in reform efforts, with reformers attempting to capitalise on the 'wash back effect' from qualifications into the curriculum ([1]). If qualifications are also prominent in accountability measures, this effect can be pronounced.
25	Influencing the content of learning programmes	The 'wash back' effect from qualifications into learning programmes – implicitly through programme design tuned to deliver the qualification or explicitly through the development of programme specification linked to qualifications outcomes.
26	Conditioning or shaping pedagogy	Some qualifications have a commitment to a specific mode of learning and state this explicitly or build require assessment processes which strongly dictate pedagogic approach.
27	Conditioning or shaping assessment	The balance of the purposes of assessment – for example the relative weight of formative, diagnostic and summative assessment can be conditioned by the qualification specification.
28	Developing zones of mutual trust (between users of qualifications)	Common qualifications, qualifications equating, and/or signalling through qualifications can be highly instrumental in establishing zones of mutual trust, facilitating international and national mobility.
29	Providing an accountability mechanism	Qualifications have been used as a principal mechanism of performance measurement in accountability systems for education and training providers. Such systems are being used to make inferences about performance at teacher/trainer level, departmental level, school/enterprise level and other higher units (for example, regions).
30	Invoking specific models of competence	Qualifications can be used as the vehicle for expressing (and perpetuating) certain models of competence. This constitutes the explicit or implicit model of competence embedded in the form and

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([1]) It is important to note here the existence of unintended consequences in relation to 'washback' and the fact that qualifications reform, whilst relatively easy, may not disturb other, more significant sets of relations affecting the shape of, and trends in, education and training.

		content of the qualification. Qualifications can thus be a mechanism for social reproduction, including perpetuation of distorted models of competence, erecting barriers to participation and attainment of certain groups.
31	Giving status to institutional /provider offering	The attainment of 'approved centre' with the right to offer and/or award a specific qualification can provide important status to the standing of an institution's programme offer.
32	Shifting control from one agency to another	As a status- and benefit-carrying instrument, the award of 'qualification awarding' powers and 'approved centre' (for provision of assessment and/or learning) carries considerable power. This can be used for adjusting control from one agency to another, within the education and training system.
33	Shifting control for assessment in the system	A change in the assessment regime in a qualifications – for example, away from written assessment to performance assessment or vice versa – can have a profound effect on the locus of control in assessment processes (and radically affect quality assurance arrangements, cost of assessment, the need for assessor development and support etc).
34	Protecting the content, standing and identity of a profession	A qualification can express, embody and/or codify a complex agreement relating to interests of the State, social partners, qualification users such as learners and teachers and other actors with a specific role in the sector.
35	Providing feedback to learners (formative and diagnostic function)	Where the assessment associated with a qualification can be used, or explicitly is intended to support, formative and/or diagnostic assessment.
36	Helping teachers and trainers understand the strengths and weaknesses of their provision (evaluative function)	Where information from the pattern of attainment and/or characteristics of the manner in which learners are attaining, or reacting to, the qualification (and the associated learning and assessment arrangements) can be used for refining the programme design, or other aspects of provision (such as additional support, information and guidance, staff skills set etc).
37	Introducing innovation	Where qualifications (complete qualifications or parts of qualifications) can be used by the State to introduce elements of innovation (such as an emphasis on equality; enhanced use of technology) or by enterprises (for example, revision of production processes) to do the same.
38	Protecting consumers	Providing protection to consumers by assuring certain behaviours, practices and/or outcomes.
39	Delivering public goods	Where qualifications not only carry aspects of consumer protection but guarantee that certain public goods (for example, public health) are delivered by the systems/institutions which use the qualifications.
40	Meeting international licensing requirements	Qualifications can be explicitly focussed on securing the requirements of international licensing.

While the report dealt also with crucial issues of validity and dependability of qualifications, including maintenance of standards, the key issue for this paper is the existence of complexity in purpose. Naïve calls for reduction in complexity of purpose are exactly that: naïve. Such calls do not recognise the complex relations in which qualifications sit, nor the multiple purposes which they assume in almost all systems. Certainly, some uses may be technically illegitimate and unsound, and these need to be weeded out from policies and systems. Monitoring of uses, impact and unintended consequences is vital. A technically-based ethical stance on utility is advisable (APA 1999). However, multiplicity of purpose is likely to remain even after this practical and conceptual ground-clearing. The discussion then returns straight to the need to attain 'curriculum coherence' through viable and appropriate mechanisms of 'curriculum control' – the starting point of the analysis in this paper.

Tim Oates
Cambridge
February 2013

Annex 1
Density of national assessments in England – historical overview

From Oates T 2012 '…I disagree with you at the level of principle…' contrasts and contradictions between assessment in 'academic' and 'vocational' qualifications – conference paper Association of Educational Assessment – Europe – November 2012

The number of assessments and exams which taken by pupils as they progressed through the English education system was, in 2002, calculated by the Daily Mail as 105 (26 Feb 2002). This was claimed as the number taken by 'bright' pupils, and included required national tests and public examinations, as well as optional national curriculum tests. There are various problems with the Daily Mail claim, as the table below indicates.

The legal requirement in the Education Reform Act 1988 and subsequent Acts is that assessment should take place within each key stage. The precise instruments and the numbers to be used are not stated in detail.

The full range of assessments has included:

1. National curriculum tests and tasks - which most pupils are expected to take

2. Public examinations - which most pupils are expected to take

3. Optional tests and progress tests - which schools can elect to enter pupils for

4. Tests other than national curriculum tests (available from commercial companies) which many schools choose to use

5. In-course or school-based assessments - which are set throughout a pupil's provision

Cont… table follows…/

For 2002, if the calculation of the volume of tests is based on 1 and 2; then the following total is generated:

Table 1
Assessment density 2002

Detail	Number of tests/ exams
KS1 1 maths test 1 reading test 1 spelling test 1 writing task	KS1 4
KS2 3 maths (non-calculator; calculator; mental arithmetic); 3 English (reading, writing, spelling & handwriting); 2 science	KS2 8
KS3 1 reading & writing 1 Shakespeare 2 Science 3 maths	KS3 7
GCSE Average number taken = 9.5 Mode of 2 papers per subject (some have more, others fewer)	GCSE 19
Advanced level AS in four subjects, for many one of the three units is coursework. Mode approx 10 papers. A2 as for AS, for three subject mode approx 8	AS 10 A2 8
Total	56

GCSE = General Certificate of Secondary Education (typically taken at age 15-16)
AS = Advanced Subsidiary General Certificate of Education (typically taken at age 17-18)
A2 = Second part of A level General Certificate of Education (typically taken at age 17-19)

Trends to 2002
- Modularisation in A level
- Increasing elaboration of National Assessments (e.g. mental maths)
- Refinement in the form of the national tests
- Enforcement of League Table measures (performance tables and targets)

Trends from 2002
- Increase in the battery of national assessments (e.g. ICT KS3)
- Development of new test forms (Single Level National Tests)
- Implementation of State-initiated formative assessment (Assessing Pupil Progress)
- Shift from external testing in KS1 to teacher assessment

During this time, and in practice which continues today, it was clear that schools can, and do, elect to use far more assessments than this throughout each pupil's learning career. Indeed, many schools elect to use commercial tests at various stages of schooling, even at the same time as they argue that 'there are too many tests' (Baker M 2007; Johnson M et al 2007; ATL & NUT 2010).

Given this 'baseline' and considering trends, the comparison with 2012 is intriguing. As calls of 'over-assessment' have increased, and qualifications reform has again come on to the agenda, the underlying density of assessment has decreased not increased.

Cont… table follows…/

Table 2
Assessment density 2012

Detail	Number of tests/examinations
Early Years Reported as a profile of 13 scales, using a score of 0-9, covering cognitive, social, physical and emotional development	EYFS 0
KS1 Yr 1 (age5) Phonics screening check Statutory test, based on reading 40 words and non-words, taken in one week window in June.	KS1 1
KS1 Yr 2 (age7) statutory teacher assessment – levels for reading, writing, speaking and listening; overall level for mathematics; and a level for each attainment target in Science. P-scales for pupils with special educational needs.	KS2 5 (7 for higher ability)
KS2 Yr 6 (age 11) English reading test Level 3-5 (plus Eng level 6 reading test); English grammar, punctuation and spelling test Level 3-5 (plus Eng level 6 test); Mental maths test; Maths test A; Maths test B; (plus level 6 paper 1, paper 2)	KS3 0
KS3 Yr 7, 8, 9, Optional tests Eng, Maths; yr 9 Science; Yr 9 (Age 14) – statutory teacher assessment in core and non-core subjects (13 subjects) – scale 1-8 in 10 subjects.	GCSE 27
Modular GCSE Average number of GCSE or equivalent taken = 10.9 Mode of 2.5 papers per subject (some have more, others fewer) plus controlled assessment	AS 10 A2 8
Advanced level AS in four subjects, for many one of the three units is coursework. Mode approx 10 papers. A2 as for AS, for three subject mode approx 8	
Total	51

Trends to 2012
- Rise in shift to GCSE 'equivalent' qualifications, attributed to schools striving to meet national targets
- Crisis in the practical administration of National Tests
- Cessation of expansion of National Testing – abandonment of development of KS3 ICT tests
- Increase in attention to formative assessment including introduction of Assessment of Pupil Performance (oriented to determining 'levels' through formative assessment processes)
- Exploration of innovations in marking (e.g. rank ordering /paired comparison for national tests in English)
- Reduction in National Tests (removal of KS3 tests, reduction of KS2 tests from Sci Eng Math to Eng and Math only)
- Elaboration of targets and measures including introduction of EBac (English Baccalaureate) as a school performance measure

Trends from 2012
- Introduction of phonics screening test
- Linear qualifications promoted and modular examinations discouraged or abandoned
- Contracting model for GCSE-level qualifications (move to single board per subject)
- Abandonment of APP as a national initiative
- Greater HE involvement in design and operation of A Levels encouraged

The overall volume of external and national tests/exams is greater in England than in other Northern European systems, where greater use is made of in-course assessment in the 14-16 phase. It is not less than some other systems, such as the emerging combination of State-level and Federally-sponsored tests in the USA (Brill S 2010; Ravitch D 2010).

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