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International instructional systems: How England measures up

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ABSTRACT

Although England was not included in the International Instructional Systems Study because it was not a high-performing jurisdiction by the Study's definition, contributors largely were England-based. Analysing the Study's nine overall aspects of instructional systems, this paper finds that England is out of step with many of the high-performing jurisdictions, largely deliberately and at the behest of recent and current governments. It is at the deep end of centralisation, its curriculum is not much integrated, and its accountability system is high-stakes test and examinations based coupled by an exacting inspection system. Many of the changes are recent and therefore have not had a chance to bed down, so whether they will result in improvements in international tests such as PISA, TIMSS and PIRLS remains to be seen.

KEYWORDS

Education reform; England; national curriculum; International Instructional System Study; Center for International Education Benchmarking

Introduction

England was not one of the high-performing jurisdictions studied for the Center for International Education Benchmarking's (CIEB) International Instructional Systems Study (hereafter the Study, see Creese, Gonzalez and Isaacs in this issue). However, most of the contributors to that Study were based in England and it was impossible not to have its instructional system in mind when writing about the standards, curricula and associated assessments of 10 high-performing – as defined by PISA 2009 results – jurisdictions.[1] The overall aim of the Study had been to ascertain what, if anything, the high performers might have in common to understand whether there were aspects of instructional system design that might account, at least in part, for their high performance.

In the following, we highlight how England measures up against the high performers, concentrating on where we see a divergence in policy objectives or practice. England seems out of step with many of the high-performing jurisdictions, largely deliberately and at the behest of recent and current governments. It is at the deep end of centralisation, its curriculum is not much integrated, and its accountability system is high-stakes test and examination-based coupled by an exacting inspection system. Many of the changes are recent and therefore have not had a chance to bed down, so whether they will result in improvements in international tests such as PISA, TIMSS and PIRLS remains to be seen.

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Please note that England had a Labour Government from 1997 to 2010, a Coalition Government between the Conservative Party and the Liberal Democrats from 2010 to 2015 and since May 2015 a Conservative Government.

Aims of the education system

The aims of the curriculum, as set out in the 2002 Education Act, are derived from the historic aims of the system (as set out in the 1944 Education Act) which were formulated before the advent of a national curriculum. The 2002 Act stated as an education aim the provision of a balanced and broadly based curriculum that

1. promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society;
2. prepares pupils at school for the opportunities, responsibilities and experiences of later life. (The National Archives, undated)

These statements of aims are both holistic and anodyne; they tell us something of the sort of citizens the state would like to foster but nothing of how this might be done. In contrast, Finland's overall goal for the education of its young people is to create a democratic society, empowering individual students to create an egalitarian society. Most of the jurisdictions under study combine both the philosophical and the practical in their policy aims and vision, emphasising literacy and numeracy, problem solving, critical and creative thinking and citizenship, as well as economic integrity and competitiveness (CIEB, 2015).

Briefly, from 2007 for key stages 3 and 4 (11–16-year-old students) and in the never implemented primary curriculum for 2011, there was a fuller set of aims for the English National Curriculum:

> Clear aims that focus on the qualities and skills learners need to succeed in school and beyond should be the starting point for the curriculum. These aims should inform all aspects of curriculum planning, teaching and learning at whole-school and subject levels. The curriculum should enable all young people to become:
>
> 1. successful learners who enjoy learning, make progress and achieve
> 2. confident individuals who are able to live safe, healthy and fulfilling lives
> 3. responsible citizens who make a positive contribution to society. (QCDA, 2008)

These aims disappeared with the revision made to the national curriculum following the election of 2010. The then Secretary of State for Education, Michael Gove, stated that the 2007 curriculum 'was a serious backward step as concepts were replaced with vague generic statements of little value' (Oates, 2011).

Nick Gibb, the Schools Minister in the new Conservative administration, addressing the Education Reform Summit in July 2015, suggested that he saw three purposes of education:

> Education is the engine of our economy, it is the foundation of our culture, and it's an essential preparation for adult life. Delivering on our commitment to social justice requires us to place these 3 objectives at the heart of our education system. (UK Government, 2015a)

This emphasis on the economic relevance of education and the need to succeed in a globally competitive world through raising standards is not at all unusual, and places

England's educational aims squarely with some of the other countries studied, namely Australia, Canada, Japan and Singapore (Isaacs, Creese, & Gonzalez, 2015; Pring, 2013). The new national curriculum, however, is subject rather than aims led in line with Mr. Gove's vision of 2007.

Centralisation of management

England has one of the most centralised – and complex – management systems compared with other the countries in the Study. Aside from having a national curriculum, it also formally regulates the education system through two main bodies: the Office for Standards in Education, Children's Services and Skills (Ofsted) and the Office for Qualifications and Examinations Regulation (Ofqual). Schools themselves operate either under the aegis of a local authority or – increasingly – outside one, since academies and free schools report directly to central government. And while the government does not regulate textbooks, recently there has been a call, both inside and outside government to rectify the situation (DfE, 2014b; Oates, 2014).

Since its introduction in 1988, the Secretary of State for Education has been responsible for the national curriculum, working through the Department for Education (DfE). Curriculum change, therefore, is highly political in nature and tends to change at irregular intervals when the government sees the need, usually because of concerns that standards are not being maintained or that overall curriculum policy has been headed in the wrong direction. Recent examples include the emphasis on strictly subject based (as opposed to more skills based) curricula and the return of linear (or end of course) based qualifications (from some being unitised). The impetus for review and change in the National Curriculum in England over the last decades (see Table 1) invariably focused on the need to raise students' level of attainment in the core subjects of English, mathematics and science, reflecting the perceived need to compete internationally and move up the international league tables.

Foreshadowing the latest round of national curriculum and qualifications change, the Coalition government announced that it wanted to give schools more freedom from unnecessary prescription and bureaucracy. Its goals for the national curriculum were to focus on the basics and prescribe a minimum national entitlement organised around subjects rather than areas of learning. It is important to note here that academies and free schools do not have to follow the national curriculum, thus setting up a conflict between the government's desire for structured, subject-based learning that emphasises 'what all students should know' and its desire to reduce bureaucracy. This means that there is a tension at the heart of policy for a central government driven by an ideological view of curriculum – and pedagogy – but also by an ideological commitment to a smaller role for the state.

The new national curriculum came into force in 2014 in some subjects; most of the remainder come into force in 2015. Each national curriculum subject is divided into programmes of study for each key stage that set out national expectations for performance. Attainment targets used to spell out national expectations for performance through level descriptions on an eight-level scale. However, beginning in September 2015 schools are responsible for setting their own performance expectations in line with the new curriculum (DfE, 2014a).

Table 1. Curriculum changes from 1987.

Date	Curriculum change	Details
1988	National Curriculum (NC) introduced to schools	Identified four broad underlying principles and intentions: establishing an entitlement to a broad and balanced curriculum; improving school accountability; improving curricular coherence; and aiding 'public understanding' of schools. Move from norm-referenced to criterion-referenced system of assessment. Standardised Assessment Tests (SATs) introduced for students aged 7, 11 and 14 years.
1993	Review of the NC	In response to teachers' observations that the curriculum was 'unwieldy'.
1995	Revised NC introduced	Less prescribed content and changes to testing arrangements.
1999	Major NC review by the Qualifications and Curriculum Authority (QCA)	Resulted in the further slimming down of prescribed content, and introduction of an overt statement of aims and purposes.
2005	Review of the secondary NC	Again with the aim of slimming down prescribed content; resulted in more emphasis on cross-curricular themes, skills and personalised learning.
2007	New key stage 3 (11–14 year olds) curriculum first taught	Emphasis on cross curricular themes, skills and personalised learning.
2007	'Root and branch' review of the primary NC announced by the Government	Undertaken from 2008 with findings published in 2009. New primary curriculum, based on integrated subject areas was to be first taught in 2011 but Coalition government elected in 2010 did not go ahead with it.
2007–2008	New GCSE subject criteria	Criteria complemented revised key stage 4 (14–16 year olds) programmes of study in English, mathematics and sciences. First teaching 2009 and 2010; assessment was unitised.
2010	Publication of White Paper, *The Importance of Teaching*	Contained proposals on the curriculum, qualifications and school accountability. Stated the Government's intention to review and reform the whole NC – with key aims being to slim down content and reduce the bureaucratic burden on schools so that the NC would serve as a 'benchmark and not a straitjacket' (DfE 2010).
2011	DfE announced its review of the NC	Outlined scope of review and timetable for action. Stated that motivation behind curriculum reform was to address England's apparent 'slide' down international education league tables.
2014	Launch of revised National Curriculum for England	Government states curriculum changes are designed to catch up with the world's best education systems. Prime Minister David Cameron says this 'revolution in education' is vital for the country's economic prosperity.
2014–2015	Publication of subject criteria and assessment arrangements for GCSE (and A level) subjects	Criteria complement revised programmes of study for 14–16 year olds; outline the content and assessment for revised linearly assessed qualifications for first teaching in 2015, 2016 and 2017 (first examining 2017–2019).

Creese, Collins, Isaacs and Reiss (2015).

Judging how well schools are performing against targets, both national and local, is the task of Ofsted. Reporting directly to Parliament, rather than the DfE is supposed to maintain its independence and impartiality, although (as with Ofqual) many people question just how independent and impartial it is (Baxter, 2014; Baxter & Clarke, 2013; Cullingford, 1999). It sends inspectors into maintained schools and academies, further education (FE) colleges and some independent schools on a regular basis and publishes the results online, labelling providers as outstanding, good, requires improvement or inadequate. Overall effectiveness is based on: the effectiveness of leadership and management; the quality of teaching, learning and assessment; personal development, behaviour and welfare; and outcomes for children and learners. A school or college receiving a judgement of requiring improvement or inadequate will trigger more frequent inspection and if a provider is deemed inadequate over too long a time span its management may be asked to resign or it can be shut down (Ofsted, 2015a).

Ofqual, which also reports directly to Parliament, is responsible for maintaining standards and confidence in GCSE and A level qualifications in England, vocational qualifications in England and Northern Ireland and for regulating the national curriculum tests. It is a non-ministerial government department that ensures that: qualifications reliably indicate the knowledge, skills and understanding students have demonstrated; assessments and exams show what a student has achieved; people have confidence in the qualifications; and students and teachers have information on qualifications. To achieve this, Ofqual oversees the introduction of reformed qualifications, their development and implementation throughout their life cycle and regulates the validity of national assessments (Ofqual, 2015a). It works directly with awarding bodies[2] in order to achieve these goals – it is the awarding bodies that actually develop qualifications' syllabuses (in line with qualifications and subject criteria where available) and their attendant examinations. Awarding bodies are generally also responsible for marking students' examination papers and, as their name suggests they award the qualification.

Interestingly, even the more centralised of the systems studied – Japan, China and Singapore – are moving toward more local autonomy, which can reflect trust in school-based decisions and an acknowledgement of teachers' and principals' professionalism (Kuiper & Berkvens, 2013). This does not appear to be the aim of the current England policy since while England allows some types of schools – academies and free schools – not to use the national curriculum, in practice most do, especially since they are still subject to national accountability measures. Leat (2014) characterises this as output regulation, where ostensibly schools and teachers have been given more freedom to innovate but are then judged through students' performance on national tests and examinations, in what Stephen Ball has labelled a performativity culture of targets and inspection (Ball, 2003; Ball et al., 2012).

Accountability

England has a strongly regulated high-stakes, test and examinations driven accountability system. Government policy-makers need to show positive systems outcomes within a single election cycle. To achieve these aims they have enshrined a system of rewards and sanctions to the outcomes of their assessment policies on the theory that high-stakes accountability systems provoke improvements in educational performance. Assessment outcomes are used to evaluate whether or not programmes and policies are working, meaning that there has been a shift from using tests as measurement instruments designed to produce information about students to the use of tests as a mechanism for changing behaviours within schools.

As an example of this approach, in 2011 a new accountability measure, the English baccalaureate (EBacc), was introduced that measures achievement in English, mathematics, science, foreign language and humanities for 16 year olds. Simply by publicly reporting how many students achieved five A* to C grades in all five subjects caused schools to increase the number of their students taking those subjects from 22% in 2010 to 47% in 2013 (DfE, 2012).

Coalition government policy, subsequently carried forward by the newly elected Conservative administration, on how to make schools accountable was a combination of a reformed national curriculum to ensure all students received a broad and balanced

education, a robust inspection programme and publishing school and college performance tables on an annual basis. It established floor targets for primary schools that meant in 2014 primary schools would be seen as underperforming if

(1) fewer than 65% of pupils at the end of key stage 2 (KS2) achieved level 4 or above in reading, writing and mathematics and
(2) below the average percentage of pupils at the end of KS2 made expected progress in reading (compared with the 2014 national median) and
(3) below the average percentage of pupils at the end of KS2 made expected progress in writing (compared with the 2014 national median) and
(4) below the average percentage of pupils at the end of KS2 made expected progress in mathematics (compared with the 2014 national median). (DfE, 2015a)

From 2016 (although schools are able to opt into this system from September 2015) *Progress 8* will be the new backbone of the secondary accountability system. The data to be included in performance tables will be students' progress and attainment across eight subjects (English, mathematics, three other EBacc subjects and three further subjects, which can be EBacc subjects or any other approved 'high-value' academic or vocational qualification), the percentage of students achieving the threshold in English and mathematics (currently a C grade, soon to be expressed in numbers, with 5 − which includes the current upper range of C and lower range of B − being the new 'good pass') and the percentage of students achieving the EBacc. A fifth headline will be introduced to show the percentage of students who go on to sustained education, employment or training during the year after they finished their key stage 4 qualifications (DfE, 2015b).

The government is also introducing a floor standard for each school, the minimum standard for student achievement and progress the school is expected to meet. If a school's performance falls below this *Floor 8* standard, then it may come under scrutiny through more regular Ofsted inspection. Schools in which students make one grade more progress than the national average will be exempt from routine inspections in the next academic year.

English accountability measures, therefore, consist of a set of publicly available outcomes and targets mixed with threats or rewards. Although schools are given apparently greater autonomy, there are severe disincentives for schools to actually choose a route different from that incentivised by government (Parameshwaran & Thomson, 2015). The inspection system is viewed in England as a sanction. This represents an unusually high-stakes system of accountability by international standards that provides schools with very limited flexibility in how to achieve the required criteria. The combined pressures for ever higher achievements are also being complicated by a tightening of the qualifications system to prevent further grade inflation, so creating maximum pressure on schools (Braun, Maguire, & Ball, 2010; Lingard, Martino, & Rezai-Rahti, 2013; Sahlberg, 2010; Sahlgren, 2014; Stobart, 2014; Torrance, 2011).

Mandatory study

Children in England must be in full time education between the ages of five and 16 and in education or training until age 18. This puts it at the top end of compulsory schooling as few other international systems require children to either start younger or finish compulsory education older than in England. The national curriculum mandates the subjects that

students must take up to the age of 16. In primary schools students must be taught the national programmes of study for English, mathematics, science (these three are core subjects), art and design, computing, design and technology, geography, history, languages (seven to 11 year olds only), music and physical education. They must also be taught personal, social and health education and religious education, although these last two do not have national programmes of study. Most schools concentrate heavily on English and mathematics because those are the two subjects that are assessed at national level at the end of key stages 1 and 2 (7- and 11-year-old students).

Secondary students must be taught national programmes of study in English, mathematics, science, citizenship, computing and physical education in both key stage 3 and 4. Art and design, design and technology, geography, history, languages and music are only required in key stage 3. Again, students need to be taught personal, social and health education and religious education throughout secondary school. While not yet mandatory, changes to the accountability system will mean that more 14–16-year-old students than previously will study history, geography and languages and there is talk about making GCSEs in EBacc subjects compulsory.[3] The only subjects that are compulsory for post-16 students are English and mathematics for those who have not already gained a minimum of grade C at GCSE.

Students from age 14 onward pursue separate subject qualifications – the end point of a course of study leading to a certificate of accomplishment in a particular area. The government measures its success in upper secondary education by the number of qualifications 16 and 18 year olds achieve and how well they do in them, which has led to ever increasing government regulation and involvement (Wolf, 2009). Post-16 students mostly study level 3 qualifications, which include AS levels[4] (a one year course), A levels (a two-year course) and a wide variety of vocational and vocationally related qualifications. Most potential university entrants complete three or more A levels. It is unusual for post-16 students to study such a narrow range of subjects, for example, students in England can choose to drop mathematics and/or English at age 16 if they have done well enough (currently a grade C or above) in those subjects at GCSE. This must be weighed against the fact that secondary education in England is one-year longer than in most systems and university study is only three years in duration.

Separate or integrated curricula

The English National curriculum is a very strongly expressed curriculum with clear boundaries between the different subjects. Aside from traditional pairings, for example, some integrated science in primary school, the curriculum cannot reasonably be thought of as integrated in any way. Subject delineations are clear-cut, taught in separate blocks on the timetable, have their own formal knowledge structure, and content is treated as distinctive and belonging to the specific area.

This puts England at odds with some of the best performing jurisdictions studied, including Australia, Canada, China, Finland, Japan and Singapore, which are attempting to break down these barriers in favour of studying larger areas of knowledge, integrating twenty-first century skills throughout their curricula and promoting 'project' work, which is seen as closer to the skills required in working life (CIEB, 2015). As seen in the aims section above, this subject-based offer has been reinforced vigorously by government

since 2010, replacing more integrated and skill-based curricula. As can be seen in Table 1, this was an active reversal of the previous education policy.

Embedding twenty-first-century skills

Based on the work done by the OECD (Ananiadou & Claro, 2009; Adamson & Darling Hammond, 2015), the Study considered twenty-first-century skills to consist of:

Ways of thinking	Creativity and innovation; critical thinking, problem solving and decision making; learning to learn, metacognition
Ways of working	Communication; collaboration (teamwork)
Tools for working	Information literacy; ICT literacy
Living in the world	Citizenship – local and global; life and career; personal and social responsibility, including cultural awareness and competence

England's National Curriculum before 2010 explicitly recognised first what was known as 'key skills': communication; application of number; information technology; working with others; improving own learning and performances; and problem solving, then 'personal, learning and thinking skills': independent enquirers; creative thinkers; reflective learners; team workers; self-managers; and effective participants. These have completely disappeared from the new national curriculum, possibly being considered as 'vague generic statements of little value'. In June 2015, schools minister Nick Gibb explicitly spoke out against the concept of twenty-first century skills as a tool to structure a curriculum in a speech promoting the entrenchment of a subject-based curriculum (UK Government, 2015b).

That said, citizenship, PSHE and ICT are well established as separate curriculum subjects across all key stages and literacy and numeracy feature heavily in the primary curriculum. It is certainly more than possible to pursue critical, creative, communication, problem solving skills etc. through subject-based learning – indeed many would argue that this is the only viable approach (Oates, 2011, 2014; Young, 2011, 2013; see also the essays in Young, Lambert, Roberts, & Roberts, 2014). But, as with integrated curricular endeavours, the new curriculum in England downplays an area that it considered vital in the past.

Balance between knowledge based and vocational learning

The overall balance of England's vocational offer is broadly in line with other countries' in that most vocational provision is found in the last two years of secondary education. What sets England apart is that some post-16 students are in essence denied a continuation of their academic studies if they have not done well enough on their GCSEs. Many schools and colleges require grades of C and above in order to participate in A level courses.[5] In general, students can opt for vocational courses after GCSEs, although Hodgson and Spours (2014) found that almost every student who could get onto an A level course did so.

Some vocational courses are on offer from Year 9 that students take alongside GCSE, although this option has been restricted by recent changes to the criteria for performance tables, which severely limit the number of vocational qualifications that can count toward a school's overall achievement (for further discussion, see *The Wolf Report* 2011). These can be delivered by FE Colleges and University Technical Colleges (UTCs) rather than schools in some circumstances. Students can opt to transfer to colleges from age over 14.

Although vocational qualifications equivalent to GCSE were supported and promoted by the Labour government, the pendulum has swung back heavily towards an increasingly academic GCSE model for key stage 4. Another recent change has been the demand that students continue, post 16, with English and mathematics study if they have not done well in their GCSEs. This moves England closer to many of the jurisdictions studied, but only for less successful students. Overall, those who do well at GCSE are likely to opt for an academic route, while those who do poorly subsequently follow a vocational path. This sets England apart from Singapore and Finland, both of which have a high percentage of students following a vocational route during post-compulsory education.

The government increasingly emphasises apprenticeships as the preferred mode of post-16 vocational training. The apprenticeship 'brand' is seen as strong and its work based training is seen as a way of addressing some of the skills gaps in the workforce. However, while the government has funded apprenticeships more generously than other aspects of post-16 education, there are fears that the quality of these apprenticeships is quite poor overall. And although there are higher level apprenticeships that can open a route into higher education, the vast majority of apprenticeships are at lower levels and often of short duration without the customary guarantees of jobs at the end of them.[6]

Setting and ability grouping

In England, setting and streaming is a highly political topic. The Conservatives supported setting energetically in opposition, but did not include it in their 2010 manifesto, opting for local accountability of schools as their preferred overarching policy aim. There remains a deep well of support within Conservative ranks for both setting and streaming within schools and more selective entry to secondary schools.[7]

There are no accurate records of how prevalent ability grouping is in England's schools. Most estimates are based on classes seen by Ofsted, though the Chief Inspector pointed out that:

> It is not possible to deduce from inspection data the proportions of pupils nationally who are taught in setted or streamed classes or in mixed-ability groups. (House of Lords, 2011)

A study of primary schools in 2014 suggested that approximately 17% of the students studied were in ability streams (Parsons & Hallam, 2014). The study found that students placed in the top stream made significantly more progress than children in non-streamed programmes, but middle and bottom streamed children made significantly less progress.

A similar estimate from Ofsted for secondary schools suggested that (excluding PE) 45% of secondary lessons were set or streamed (Stewart, 2013). GCSE examinations have a built in setting system, with papers available at lower and higher tiers, although fewer GCSEs will be tiered after 2015 – only mathematics, the sciences and some modern foreign languages will have tiered papers.

Sir Michael Wilshaw, Ofsted's Chief Inspector, has been consistently pro-setting in his public pronouncements, and current guidance from the Ofsted *Inspection Handbook* (Ofsted, 2015b) stresses that in mixed ability classrooms the most able students must have an opportunity to be challenged and the least able sufficiently supported. Conversely where ability groups are used school leaders must ensure that lower sets are not disadvantaged.

This support for ability grouping in England contrasts with the majority of jurisdictions in the Study, which had explicit policies encouraging classes to remain together and to cover the same material. This is in line with the current research that has focused on the limitations and drawbacks of setting and streaming, especially for the least able (Hallam, Ireson, & Davies, 2004; Hallam & Parsons, 2013; Ireson et al., 2002; Parsons & Hallam, 2014; Wilkinson & Penney, 2014). We can only speculate as to why ability grouping and selection appears to have such an appeal to English politicians and opinion formers.

Role of government in designing assessments

The role of the government in designing assessments is different for assessments associated with key stages 1 and 2 and those for secondary students, but in both cases government is heavily involved. National curriculum assessments for primary students are used for a variety of purposes: as a tool to raise standards; to ascertain individual students' progress; to judge individual teacher performance; to ascertain where intervention in a school is necessary; and to hold schools accountable (Stobart, 2008). Crucially, while these are high stakes for schools, they are fairly low stakes for children, although given the attention paid to them, it is understandable why many people think otherwise. Under the aegis of the DfE, the Standards and Testing Agency (STA) develops tests for key stages 1 and 2, as well as a phonics screening check for six year olds.

At the time of writing, tests for six and seven year olds (phonics screening and end of key stage 1 tests) are marked by their teachers. Year 6 students must take externally set and marked tests in mathematics and English as a critical accountability measure for all primary schools. Up until 2009, they also had to take tests in science; national standards in science are now measured through a statutory sampling arrangement. Starting in 2012, arrangements were put in place to rely on teachers' judgements of English writing. Those judgements must be informed by the results of a writing test, which can be internally marked. Results of tests are provided to parents and the public, and are used to judge school performance as well as student progress. Aggregated school data are used to form an overall picture of local and national attainment.

Most 14–16 year olds take GCSE qualifications, which are graded A* through G, although only a grade of A* through C is considered a good pass. From first teaching in 2015 (first examinations 2017) GCSEs will be graded 9 (highest) to 1 (lowest). For those who take GCSEs, the average number taken is about eight (Gill, 2012), generally including English, mathematics and sciences, because schools are judged by how many students obtain five or more GCSEs grades A* to C including English and mathematics, and science is a compulsory subject. Post-16 students can access a wide array of qualifications, but for most, the preferred qualification is the A level, which is graded A* through E and the pass rate is over 90%. In 2000 all A levels became unitised, containing between four and six units. But concerns about over-testing, the ability to re-sit units and a purported lowering of standards led the government to announce in 2012 that it was ending unitised assessment both in GCSEs and A levels.

The government is at a remove from GCSE and GCE A level testing, although it developed the subject criteria for the GCSEs that will be first taken in September 2015 – prior to 2010, the now defunct Qualifications and Curriculum Authority (QCA) was responsible for subject criteria development. The examinations themselves are written, implemented

and marked by the awarding bodies, which are in turn regulated by Ofqual. Unlike the national curriculum tests, the GCSE and A level tests are developed by more than one entity – there are three main awarding bodies in England. None of the jurisdictions studied had more than one national provider for national tests. Internal assessment is limited to coursework/controlled assessment and very few new qualifications to be introduced starting in 2015 contain coursework. Vocational qualifications, however, are predominantly internally assessed (Isaacs, 2010).

England maintains an examination rather than a curriculum-led secondary system because the accountability role played by qualifications and tests leads to a teaching agenda dominated by what is required for examinations success. And despite claims that schools have been given greater independence from direct government control in what can be taught because of the advent of academies and free schools, national examinations and inspection nonetheless amount to a highly centralised system. With the exception of Singapore – which is modelled on the English system – and the USA, England has far more high-stakes assessments than the other jurisdictions we studied. Like the USA, these government driven assessments are inextricably linked to teacher, principal/head teacher and school accountability.

Discussion

Comparing the English instructional system with other jurisdictions, England's instructional system seems out of step in many of the areas on which the Study concentrated. The areas in which England differs most from the high-performing jurisdictions are those related to central control and government intervention, namely: the centralisation of management; the principles and methods of accountability; and how assessments are created, importantly what stakes they have and for whom.

While the aims of the curriculum in England are neither strongly formulated nor embedded in the curriculum, they are not that dissimilar from other jurisdictions' in their look toward the future and their insistence on economic competitiveness. Similarly, while the English administration has not indulged in the language and rhetoric of twenty-first century skills, their existence and importance is implicit in parts of the curriculum. The English policy towards vocational education is also broadly similar to many we studied. It should be noted, however, that while routes into higher education from the vocational side have always existed, the status of vocational qualifications has remained low despite occasional attempts to upgrade the sector. Recent measures to ensure that students on vocational pathways achieve to a reasonable standard in English and mathematics is in line with what happens in other jurisdictions.

England is certainly on the low end of the integrated study spectrum, but most of the other jurisdictions also offered subjects separately and were in some cases only slowly introducing more cross curricular endeavours. Like most of the other jurisdictions, England has a compulsory national curriculum – the exceptions here were the US states and the Canadian provinces. Most jurisdictions, including England, did not have set policies on ability grouping, although most others are explicit in encouraging classes to remain together and to cover the same material where possible.

What sets England apart from the other jurisdictions is its highly centralised, regulation-led instructional system in which testing primarily serves as an accountability

tool – although it is also used for selection purposes at upper secondary. As well as a highly controlled subject-based curriculum, schools are also bound by high-stakes accountability processes through regulation, inspection and testing. Schools are rigorously judged on their students' assessments, backed up by an intensive inspection regime which has a specific and clear focus on how it expects senior managers to lead and teachers to teach. Rigid accountability regimes, while helping to ensure that educational opportunities are more evenly distributed can lead to excessive test and examination preparation, concentrating resources on that which is tested at the expense of other curriculum areas and, in extreme cases, cheating.

Finally the government maintains a tight grip on the assessment system, with strict control and/or frequent interventions in the details of key stage tests, GCSE and other examinations. These are usually justified under the banner of maintenance of rigour and standards. Although England has an outwardly free market where awarding bodies are free to design and deliver qualifications as long as they adhere to guidelines set down by Ofqual, the reality is that government intervention is frequent and can be commercially disruptive. The current government has been exploring the idea of keeping only one awarding body (or only one awarding body per subject) for GCSEs and A levels.

This centralised control of the curriculum and assessment system and high-stakes accountability processes gives the government an exceptionally firm hand. No other jurisdiction we studied has such a strongly centralised management of the school agenda. The Secretary of State has powerful and persuasive levers for exerting control over the system and successive post holders have been ready to use them. It will be interesting to observe how this centralised power coexists with the rhetoric of local control being given to free schools, and to a lesser extent, academies. Although still subject to inspection, these newer forms of school are freed from the restrictions on delivering the national curriculum and even employing trained teachers.

Over the past decade, the reinforcement of central control has not manifested itself in increased performance on international tests. The first cohorts to be largely educated under the Coalition and Conservative governments will not take PIRLS, TIMSS and PISA tests until the end of the decade, since national curriculum and qualifications changes are only now being introduced. The current round of such testing in 2015 and 2016 should, however, hold some clues as to the efficacy of England's educational systems reforms.

Notes

1. The 10 high-performing jurisdictions were as follows: New South Wales and Queensland (Australia); Alberta and Ontario (Canada); Hong Kong and Shanghai (China); Finland; Japan; Singapore; and Massachusetts (United States). Florida (United States) was also included as an example of a mediocre performer.
2. An awarding body sets and marks examinations and awards qualifications. The main academic qualifications in England are the General Certificate of Secondary Education (GCSE) and the General Certificate of Education Advanced Level (A level).
3. In June 2015 Schools Minister Nick Gibb announced that 'in due course' the government would set out plans to require all students to take five EBacc subjects in key stage 4. http://schoolsweek.co.uk/all-pupils-to-take-ebacc-subjects-to-age-16-says-schools-minister/.
4. AS levels have been a component part of A level study until this year, but are now being 'decoupled' leaving A levels as a single two-year course of study.

5. For example, at City and Islington College, a large London FE College, the requirement for full-time A level study is four GCSE subjects at grade B or above and at least two more at grade C or above including English language. http://www.candi.ac.uk/apply-enrol/level-entry-requirements.
6. For differing points of view see http://www.fenews.co.uk/fe-news/when-does-a-crisis-become-an-emergency, http://www.ft.com/cms/s/0/4293ce4e-4c20-11e5-b558-8a9722977189.html#axzz3l38xoKw8, http://www.britishchambers.org.uk/policy-maker/blog/quality-over-quantity-with-apprenticeships.html, http://www.niace.org.uk/our-work/promoting-learning-and-skills/influencing-policy/ten-policies-ten-people/high-quality-apprenticeships.
7. As an example see David Davies' website: http://www.daviddavismp.com/david-davis-backs-campaign-for-new-grammar-schools-in-england-across-the-papers/.

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No potential conflict of interest was reported by the authors.

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