CENTRE ON SKILLS, KNOWLEDGE AND ORGANISATIONAL PERFORMANCE

Preparing English Young People for Work and Life. An International Perspective

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This paper originated as a brief, presented on 1 May, 2015, to the Secretary of State for Education. The Department for Education (DfE) had asked Paul Cappon, as Policy Fellow, to undertake in 2014-15 a review and to formulate findings, conclusions and recommendations that could inform policy deliberations in the Department.

All views, findings and recommendations expressed in this paper are those of the author, who does not represent government or government policy.

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Executive summary

This contribution to reflection on English education addresses the question of preparation of young people for both work and life, with emphasis on primary and secondary education and on postsecondary non-tertiary training. It does so by viewing the English system through an international and comparative lens.

Its findings and recommendations are broad and high-level, rather than narrowly focussed on detailed aspects of educational policy and practice.

A **first section** examines the roots and impact of the highly distinctive character of English education. This distinctiveness is shown to be important for two reasons. First, it provides context for both the strengths and internationally comparative weaknesses of this country's educational effort. Secondly, it helps to understand the constraints of realism that an external observer like the author of this document must place on his recommendations for change. We will not recommend the ideal, but only the possible.

Section two identifies positive developments and troubling trends for English education that are apparent from a review of internationally comparative data. Other strengths and weaknesses are recognised through qualitative analysis in subsequent sections of the document.

The salient point from the review of international comparative data: despite several positive developments, it appears that English young people on average are currently being equipped neither with skill levels adequate to career development and navigation of life stages; nor with those technical competencies that can smooth transition to the workforce.

Any useful attempt to address the preparation of young people for life and work must take account of the current environment. If there are sufficient commonalities in thinking on the issues, society is far more likely to find a way forward. **Section three** outlines some points of convergent thinking gleaned from discussions with key informants in educational institutions, in business and industry, with researchers, in government and others from most regions of the country.

It behoves us to seize the opportunities presented by the following observation: there are generally less divergence and more options for correcting deficiencies than would have been predicted. Numerous commonalities of perspective, combined with sufficient similarity in political party platforms on education and training, permit an optimistic view of timing for developing sustainable policy directions and strategies for England with regard to DfE priority 5: the preparation of well-rounded young people for success in adult life. A general recommendation will be to utilise fully the leverage afforded by convergence: give policy priority to those many areas of rough agreement, rather than to tackle issues that are not easily amenable to sustained collective engagement ("buy-in") by educators and educational institutions by and social partners.

In **section four**, we examine key issues for vocational and postsecondary education and training (VET), for primary and secondary education, and for early childhood education and development (ECED).

With respect to VET, we endorse full implementation of the Wolf review. We set out the "winning conditions" for successful apprenticeships programmes. We acknowledge that improved VET per se is an insufficient foundation for improved labour market efficiency and youth career prospects. England will also require more robust national and regional economic development strategies of the kind that have proven their value in some local English success stories.

With regard to primary and secondary education, we find that recent adjustments to national curriculum have generally been sound, and that good GSCEs for all students in any educational/training track must be the goal. We find that careers advice, an acknowledged weakness of English education, requires considerable amendment and accountability. Several recommendations are offered in support of these changes.

Since values, beliefs and attitudes are significant to academic/training success, a robust character education thrust is found to be useful.

English educational successes appear to occur despite, rather than because of current systems and structures. The rigid pathways that confine students from a young age and throughout their education and training is a notable example. Since fragmentation characterises delivery of education in England, stronger networks must become an intrinsic part of a more coherent and successful delivery.

Inflexibiity of pathways available to students persists at postsecondary level and in the 16-19 group; and acts to restrain and compound irreversibility of choices made earlier in the learning cycle. Although UK universities have become increasingly engaged in preparation for technical work, there are disincentives that constrain this positive development. Universities, like schools, are held accountable individually, not collectively or in tandem with PSE as a whole. Performance indicators do not encourage collaboration with FE colleges, UTCs or secondary schools. These factors impede mobility of students - their capacity to transition smoothly and to transfer between types of postsecondary institutions.

With respect to ECED, we conclude that publics and government are seized with its significant impact on future students and well-rounded adults. Emphasis in our recommendations is on the quality, rather than the quantity, of early school and day-care provision and on better training and more stringent requirements for ECED providers. Measurable outcome goals should be set for this phase of learning, and should include improvements in percentages of parents reading regularly to children under five.

Leading societies of the future are those that are now setting optimal conditions for future educational success. DfE understands that those conditions require development and

constructive use of a powerful evidence base that can inform policy deliberation and formulation. **Section five** outlines current strengths and troubling trends in the basis for policy formulation. Chief impediments to evidence-informed policy deliberation have been: few moderating influences the political nature of educational policy; insufficient development of partnerships between civil society and policy makers; little structured external advice to government; insufficient deployment of academic researchers in support of research and analysis; and a propensity to set goals for individual schools but not for the system as a whole.

A major and admittedly ambitious recommendation to improve evidence-informed policy deliberation is presented at the conclusion of the section. Understanding that this recommendation may meet with particular resistance, it is presented nonetheless as critical in shifting current imbalances in policy making for English education.

Attributes of the English system: Is this what we want?

In a successful education system, the desirable attributes of the central authority would be the converse of those that we would hope to find at local level.

It is locally that we would expect and wish to find innovation, experimentation, risk-taking, entrepreneurialism, empiricist methods of trial and error. The principle of subsidiarity applies. Each district or region would be attempting to find creative means of attaining measurable common goals or targets – but do so in keeping with their own specific and particular contexts and challenges. When these attributes are present, experimentation and trial of diverse approaches in pursuit of similar goals may lead to fruitful collaboration and to regional sharing of promising practices and approaches. System-wide improvement occurs.

Conversely, the central authority would impart stability, consistency and a long term perspective. When it engages in changes of policy direction, it would do so carefully and in consultation with a broad array of partners from both the education sector and from other segments of civil society. Its intention would be to work as closely as possible from a convergence of viewpoints of its partners, so that its initiatives would have optimal chances of success. To that purpose, it would construct a sustainable framework of partners that would assist it in considering priorities, goals and means. (In doing so, however, it would refrain from delegating or abandoning its authority to independent bodies or commissions).

In such a system, decisions regarding practice and complementary funding allocations would frequently be made regionally or locally, but in accord with nationally prescribed goals.

What if, in England, just the opposite of this pattern obtained? What if is central government that is empiricist, entrepreneurial, with sudden mutability and frequent changes of direction, trying one approach and then another – often with only short periods allowed for practitioners to adjust and adapt?

In schools, districts and regions, on the other hand emulation, conservatism, rigidity, compliance, harmonisation and risk aversion appear to be the pattern.

In such a dynamic, would it not become difficult to foresee the kinds of creativity and innovation that, when scaled up, may lift a system to enhanced outcomes and to continuous improvement?

Key recommendations for the future of English education

1) Rebalance the accountability framework,
    a) To place more emphasis on collective accountability of various sectors within the education system
    b) To establish measurable national and regional goals for the system as a whole – as opposed to further stress on accountability of individual schools and small chains
    c) By rebalancing accountability, England would reverse the current reality whereby central government approaches are empiricist, innovative, highly mutable and inconsistent; whilst local educational institutions are frequently rigid, conformist, compliance-driven, lacking innovativeness and risk averse
    d) This measure should be seen as countervailing excessive reliance on the triad of individual school accountability levers (rather than removing those levers)
2) Rebalance channels of authority in education,
    a) To create a middle layer of authority, policy, funding, and accountability, remediating the current public and sector perception that it is the state that must remedy even the most local and relatively minor issues
    b) To establish regional measurable goals
    c) To take account of regional realities in curriculum and programmes
3) Establish frameworks for continuous, structured and representative advice to government from civil society, such that
    a) Educational progress is seen as jointly the responsibility of the state and of civil society
    b) Government can benefit from the full range of information, analysis and experience that partners can bring forward
    c) More consistency and stability of educational policy will occur
    d) Partners from both business and educational institutions and their groupings can be more actively supportive and engaged in improving outcomes and pathways

(Government retains – and does not delegate to any commission or external body – responsibility for educational policy and standards)

4) Develop seamless pathways between secondary schools, further education and HE, such that

   a) that a learning architecture may be created

   b) Flexibility and mobility become a reality between and among secondary VET and academic routes; UTCs and HE; and FE and HE. Permeability and flexibility must replace unidimensional tracks as the norm

Further recommendations found in the body of the document are summarised at the end of this document.[1]

[1] See Appendix 1 – Three implicit assumptions that must be challenged

Introduction

The government's overall vision is that every child should be prepared for life in modern Britain. The mission, therefore, of the education system is for "every child to learn the knowledge and skills they need to get a job and get on in life".

What does that remit mean for English children and grandchildren? Of course, all citizens want their youth to pursue stimulating careers with high rewards, with good salaries and with professional and personal development and satisfaction. But they also desire their offspring to cultivate the beliefs, attitudes and values that will make them lifelong learners and full participants in society. They appreciate that character attributes of self-regard, resilience, and confidence are just as important as technical and academic skills in "getting on in life".

England fully understands that its youth must be prepared for the world of work; but that its education system must offer them also skills that will permit them to navigate successfully all aspects of life. Priority 5 for the DfE is that of "supporting schools to prepare well-rounded young people for success in adult life." There can be no dispute that this priority lies at the heart of the country's future.

Its education system therefore should support England's economic and skills strategy and the full participation in society of its citizens. What are the competencies, knowledge and attitudes that English young people need to possess?

This review centres primarily on elementary and secondary education and on non-tertiary postsecondary training. However, since learning is life long, we may not entirely neglect the relationship between these phases of the learning cycle and the stages of early childhood education (ECE) and of tertiary/university education.

Learning is a vast domain and the English system is complex and highly distinctive. The approach taken in this review is broad: we do not intend to delve into numerous issues and debates at micro-level. Instead, we attempt to identify key concerns for consideration and potential action. We take an international lens to the English experience, implicitly posing the question: how does this compare with other developed countries (OECD members)?

Findings and recommendations set out in this paper manifest that intercontinental approach. At the same time, as in the recent Wolf review of vocational education, we refrain from making recommendations that may not be realisable in the very particular context of this country. It's distinctive educational history and culture and must be respected and taken into account in any contribution by an external reviewer.

Since this contribution to reflections on English education is founded on an international perspective, it therefore naturally alerts readers to analysis of comparative educational performance and issues across developed economies.

Data relevant to international comparisons lead inevitably to rankings of all kinds. However, league tables tend to be remarkably disparate in their appraisal of performance. For example, while in 2014 British media decried the fact that England fails to place in the top 20 countries in any of the three recent OECD PISA tests, the Learning Curve Project, carried out by the respected Economist Intelligence Unit on behalf of Pearson PLC, ranks Britain sixth in the world in education, and second in Europe. (Full disclosure: the author of this paper has been a member of the project's international advisory committee).

In the present document, the reader will find multiple references to international rankings; but none are advanced by the author. Instead, drawing on international data and analysis, we begin with a cursory assessment of the strengths and weaknesses of English education and training (positive developments and troubling trends) from primary school through non-tertiary postsecondary.

More important for England than international league tables is continuous improvement on its own terms, while benefitting from cognizance of promising practices and effective models in other countries.

Exploring optimal conditions enabling every child to succeed in work and life is the goal of this review.

How England could use this brief

This document does NOT represent a discrete set of specific proposals which, if implemented, will undoubtedly move the education of English young people in the right direction. It does not constitute a manual on the basis of which policy decisions can directly be made.

England, please utilise this paper instead as an opportunity to take a step back, perhaps in counterfactual fashion. If the main ideas, findings, imperatives and recommendations do resonate, then employ the principles outlined here as points of reference when reaching decisions among competing approaches and alternatives.

The principles laid out in this brief are intended to assist policy makers to stand back from their options and ask themselves the questions: "is this approach consistent with these propositions? Will it address the issues and imperatives outlined?" Then, only if a positive judgement is made and has sufficient concurrence in the broader society, proceed with implementation.

1.0 Distinctiveness of English education

In comparison with other countries in the OECD, the English education system is quite distinctive. Its unusual characteristics appear to relate to English history and culture but also, crucially, to policy decisions taken - or not taken – in the recent past, i.e. in the last 20-30 years. These decisions relate to critical issues including apprenticeships, curriculum, comprehensives, polytechnics and examination boards.

A review of distinctiveness is useful to provide context for the current state and performance of English education. It will also suggest some limits on potential adaptation of the system to the modern context of greater international competition and expanded demand on educational outcomes. The question must also be asked whether there is a relationship between these distinctive features and the relative stagnation of educational outcomes for English young people – in particular:

- Not advancing in assessments by the OECD Programme for International Student Assessment (PISA), despite many reforms and relatively high expenditures in education.
- One of the more inequitable systems of education, and which suppresses social mobility, especially among the white majority outside London (see in anecdote 1)
- Poor results in international tests of skills among young adults – including and especially being the only country in which essential competencies of older people are superior to those of the younger.

1.1 A review of distinctive features

i. Non-state key functions

Distinctive non-state features of the English system include:

- Exams are not state regulated, but operate as a function of private examination agencies.
- Qualifications are awarded by private agencies, often leading to offer of credentials whose poor quality or irrelevance imparts no benefit to the learner**.**
- Apart from a substantial number of independent schools, there are schools that operate as if independent with respect to curricular and other issues. (See Anecdote 2)

Do these unusual features provide sufficient levers for the state to intervene as effectively as in other countries? England is particularly outside the norm in not providing secondary school graduation and certification of attainment by the state.

Anecdote 1: Statistical outline of a challenged ethno- racial majority

Whilst it is often asserted in England that the "white issue" is confined to indigenous British of the working class, this is only partially true.

What is correct is that poor whites staggeringly underperform all other racial groups when measured by the significant indicators represented by the proportion achieving 5 or more A*-C grades in their GCSEs.

Among all pupils eligible for free school meals (FSM), England's proxy measure of child poverty, the proportion achieving good GCSEs is as follows (DfE data, 2013/14):

Chinese	Asian	Black	Mixed race	White (and white British even slightly less)
83.1	58.7	53.4	46.5	35.5

However, data also show that it is untrue that this is merely a problem of social class. If it were, one would not find the following distribution of good GCSE scores in the total ethno-racial groups:

Chinese	Asian	Black	Mixed race	White
85.5	70.3	64.1	67.2	65.0

This table indicates that, on average, white performance is equivalent to that of blacks – even though only 12 % of whites are poor enough to be eligible for FSM, compared with 29% of blacks.

It is interesting – and telling – in the light of these startling data – that few interveners in education seem aware, or wish to acknowledge, that the issue for indigenous British is not merely that of the working class. An important question, then, is: why do they not know or subconsciously wish not to know?

ii. School governance

School governance is comparatively heavy, featuring a board of governors for each school, whether state-maintained or independent. With approximately 24,000 schools and school boards in the country, a quarter million board members would appear to be a considerable and unusual investment of person-time and energy. Moreover, there is no evidence that this investment has been cost-effective in promoting flexibility, responsiveness and better results than in systems which do not require such ponderous forms of governance.

Anecdote 2:The Birmingham Trojan horse

Perhaps as crushingly disheartening as the Rotherham episode of extensive child abuse has been the forced Islamicisation of publicly-maintained schools in Birmingham.

What is most surprising is that events in Birmingham appeared to surprise anyone. Although it is the case that the CofE has been leading and governing successful schools for two centuries, If schools may be both faith-based and have their own boards as well as receive full public funding, such an outcome in the presence of radical Islamists in ghettoised neighbourhoods would appear to be inevitable – and replicable, according to some educational leaders in that city. As in Rotherham, intimidation and fear of racist labels impeded timely and appropriate action by local bodies.

Whereas in other OECD countries, such schools – if they existed – might become independent academic expressions of extremist isolationism, in England there was no need: the state continued for a time to fund these aberrations. Indeed, it was reported by local education leaders that the accountability ratings of these schools were perceived to be improved after they eliminated or reduced liberal arts, humanities, and social sciences - in order to concentrate on those core subjects of more interest to the inspectorate.

iii. Mechanisms of accountability

There exists in England a triad of intensive accountability mechanisms at school level: the Office for Standards in Education (OFSTED); a measurement of proportions of secondary students completing “good” general certificates of Education (GCSEs); and regularly published performance tables.

That these instruments are powerful and potentially effective at individual school level has been demonstrated in numerous ways, including a natural experiment that compared Welsh and English results. After Wales dispensed for a time with some of these mechanisms, it showed a consequent decline in outcomes, while England maintained its performance.

There exists an implicit but strong assumption that powerful individual and school chain accountability will lift the system and thereby produce overall improvement in national as well as local performance. However, there is no evidence to indicate that this singularly intense central government lever has done so – or will in the future. On the contrary, PIAAC and PISA results indicate relative and, in some instances, absolute regression.

The reasons for this apparent paradox require review by English educational leadership.

It is possible that powerful accountability systems for schools through league tables and OFSTED encourages compliance, prioritising and organisation according to compliance,

rather than benefit to learners. If so, there may exist a perverse effect from current individual school accountability on the system as a whole. Other possible perverse effects:

- Careers advice may be poorly delivered, especially regarding the value of UTCs and vocational education and training (VET) more generally, because schools are seeking to maintain financial advantages in enrolment; or to divest themselves of pupils whose performance reduces their standings in various comparative measures. It is not uncommon, for example, for students to be denied access to good universities because, after achieving mediocre results in science subjects, they were discouraged from pursuing courses in science that became pre-requisites for entrance to the university
- Centralised accountability appears to fill some schools, teachers and school leaders with acute and recurrent anxiety– perhaps not an ideal atmosphere for improved teaching and learning.
- Inter-schools competition induced by accountability mechanisms may exert pressures to reduce standards, rather than to accentuate them. Various modalities are possible: private exam boards may diminish requirements in order to render their products more attractive to school clients; school offerings may be of reduced quality in order to produce the apparent improvements required by league tables.
- When, on account of accountability mechanisms, the locus for enhanced performance is on individual schools, the school becomes the unit of change. Hence the enormous emphasis on school-level data and the employment of full-time data specialists in secondary schools. However, this emphasis may be detrimental to formation and maintenance of networks for school improvement. While such networks exist (and some, like the National College of Teaching and Leadership (NCTL) are quite effective), whether through organisations established for this purpose or through academy chains, facilitation of collective improvement will necessarily take second place to the imperative of individual school performance. A more direct way of stating this possibility: is a school leader actively encouraged by incentives to share successful methods with a colleague down the road, whose results may then surpass his own? The NCTL may not be sufficient.
- If meant as a strategy to improve results through marketization, the individual school accountability framework is of questionable efficacy. In a commercial market environment, popular (presumably superior) products will grow and inferior ones will decline. Eventually, the inferior will be displaced or taken over by the successful. In the English school choice market, however, this does not appear to operate. There is little incentive (but significant disincentive because of individual accountability levers) for popular schools to grow by taking on problematic schools or pupils. As a result, less popular or successful schools continue to grow because of the need to supply places for all pupils.

- Emphasis on the accountability triad may unnecessarily limit the breadth of education of some pupils. (See anecdote: “The Birmingham Trojan Horse”)

In summary, although admired by many, the distinctive English accountability framework cuts both ways – positive and negative.

iv. Extremes of centralisation and decentralisation

In England, educational policy, funding and curriculum are more powerfully determined centrally than in most partner countries. Centralisation gives rise to some curious episodes in which ministers may be involved in micro-managing issues at relatively low level. Combined with tendencies to empiricism by ministers, this can lead to much experimentation (with mixed results), many changes in direction and therefore frustrated perceptions of instability on the ground.

By contrast, delivery is remarkably decentralised and has become more so as “academisation” proceeds. Decentralisation (perhaps incoherence) may be a natural offshoot of the individual school as principal locus of accountability and of change.

It is probable that the dichotomous directions of centralisation and decentralisation are more pronounced in England than in other OECD nations. This characteristic may make it more difficult here to align policy with practice and to lever the results that are anticipated.

v. Fragmentation

Fragmentation of the English system is a predictable outcome of high degrees of decentralisation of delivery. It leads to a bewildering array of qualifications, choices, exams and schools that must be confusing and intimidating to the less academically sophisticated native-born as well as to new arrivals,

Unlike countries that possess a middle tier of powerful regional or municipal educational authorities, or influential advisory bodies, English educational progress depends largely on the commitment, idiosyncrasies and skills of individual local leaders. This makes it more challenging in England to scale up locally successful approaches; and to share promising practices widely on either a regional or national basis. Competition induced by school-level accountability renders this sharing of successful practices even less likely.

Local leadership does not equate with, or necessarily lead to systemic success. There must be adequate organisation and structures to support it.

As adumbrated above, there are many instances in England of goodwill, commitment, application of imaginativeness, innovation and good work - but little evidence that these are systematised or scaled up through the fragmented delivery of education functions. It is even possible, given this structure, that current forms of accountability are obstructing translation of success beyond local units.

In the Wolf Review on vocational education, a key informant is quoted as follows: “England always has great examples of good practice. But we don’t have a good system” (p.69). Wolf concurs: “English education boasts a wealth of good practice, involving both innovation and the maintenance of excellence. But to a considerable extent these exist in spite of, not because of, the underlying structures” (p.68) Must we conclude that this judgement applies also to secondary school and the FE college sector? (See Anecdote 3)

Anecdote 3: Outstanding head teachers: an informal poll

Meeting with a group of 15 OFSTED-rated outstanding head teachers in the Midlands is highly stimulating, especially when there is polite divergence of views on a number of issues.

However, there was vigorous agreement, firmly and occasionally vociferously expressed, to one question only:

“Do successes in English education occur because of, and facilitated by, structures; or do they happen despite those structures?”

“Despite” was the answer, clear as the bell of the old Coventry cathedral.

(There have been exceptions in written submissions: Sir Mark Grundy, for example, head teacher and winner of a prestigious West Midlands award, writes: “I genuinely think that the current structure works well, probably even better than I expected”)

vi. Apprenticeships led by designated providers

In most countries possessing effective VET there exists strong leadership by industry; and there tends to be direct interaction between employers and those educational organisations tasked with providing the training required by those employers. Employers participate directly in codifying the behaviours, the knowledge and the skills that an apprentice should demonstrate.

Unusually in England a prominent place is taken by third party providers whose role intersects with those of educators and employers. The influence and authority - as well as the financial interest of some providers - adds an element of confusion, relative ineffectiveness and frustration to English training efforts. Perhaps the most deleterious impact of this framework has been the development and offer of training schemes of poor quality, and which lead to few advantages for learners.

This deficiency has been adequately documented elsewhere: initiatives underway to remedy this situation – especially the Trailblazer programme - will be welcomed in most quarters and should eventuate in improved performance.

vii. English educational results

As outlined above, English educational results have not evolved in positive directions as measured by international assessments, and experienced by learners in labour market mismatches.

Overall, English educational outcomes, although not following a positive pattern, are not unique in comparison to other European countries. As in some partner countries, England follows a pattern of inequality and relatively low social mobility. However, there are signs of improvement of school quality in deprived areas (Ofsted, 2014); and twice as many poor children are achieving the basics at GCSEs as in 2005 (Social mobility and child poverty commission, 2104). Also, the proportion of disadvantaged students performing at expected levels has slightly increased (DfE report to Parliament, January, 2015). The attainment gap between the disadvantaged and others has shrunk marginally; and the proportion of primary schools classified by Ofsted as good or outstanding in 2014 continues to rise.

Unusually, however, indigenous young people of white race and British ethnicity, particularly in the working class outside London, are in large number among the learners left standing on the platform as the educational train leaves the station. The data in (see Anecdote 1) are very compelling.

It is unclear whether unrelenting expression of “political correctness” in England is impeding adequate response to the entrenchment of this tendency. (See Anecdote 4)

What is clear is that England is among the most unequal and least socially mobile countries in the OECD. The Social Mobility Commission reports that 60% of poor children still do not achieve the basics in GCSE. The Future Leaders organisation has reported the annual financial cost of social immobility in this country at between 11.6 and 21 billion pounds; and that 14 billion a year would be added to GDP if below average students reached the national average

Deserving of much emphasis is the unique finding that young people in this country are less endowed with essential skills than the older generation.

Anecdote 4: The Grimsby Fishery

In 1970, at the peak of the indigenous fishery at Grimsby, 400 English trawlers plied between that harbour and fish stocks in the North Atlantic. Today, as reported in local guidebooks, there remain only 5 of these. In fact, during a recent tour of the harbour, the sole vessel glimpsed was disposed in front of the fishery museum as a reminder of days gone by.

The demise of the fishery in Grimsby and other areas of the north east represent an

important reason for its decline and for the economic stagnation and relative poverty that characterises it today. Yet Grimsby continues as the largest processing station of fish in the country, the catch being brought in to the town primarily by Icelandic trawlers.

A visitor's first question is a most obvious one: how could this be? How is it possible that there are no fish left in the sea for English fishermen, yet plenty for others? From an education standpoint, the issue becomes: why are there so few, including those involved in presenting history, who can or wish to explain this phenomenon?

Guidebooks merely state that "England lost the cod wars to Iceland". Even in the excellent fisheries museum, no answer is advanced to this most cogent of questions, pressing because it is so central to the current state of economic and social affairs in the locality. In the successful academy school in Grimsby, the question was put to four 17 year old students, all completing their A levels this year. Remarkably, all four bright and eager students had grandfathers who had worked in the moribund English fishery; yet none had an answer to this question – even though the loss of the fishery had exerted such a profound and direct influence on their lives and on those of the community as a whole, since it lies at the heart of its current economic deprivation.

From a psychological perspective, it seems clear that people adjust better when they can develop an understanding of circumstances and forces that brought them to their current condition. It is crucial that young people especially understand that it is not due to their failings or those of their parents and grandparents that they must struggle to succeed against the odds. It becomes a matter of self-regard and of confidence in oneself and in one's society and community. For these reasons it is probable that, in most countries of the OECD, exposition of this aspect of local history would be paramount in both formal and informal learning settings – in schools and in museums and other public spaces. General awareness of these forces would be likely and would assist in encouraging young people especially to possess characteristics of resilience and inquiry that are critical to success in life and work.

Some possible explanations for the disparity between the Grimsby observation and the situation more commonly found in other countries:

Teachers in various regions have explained that local history is not essential to a good OFSTED rating and that, therefore, the observation in Grimsby is far from an isolated example; that the national history curriculum, through time pressures inherent in its requirements, discourages a focus on local history. Yet it is an understanding of local geography and history that helps young people understand their origins, their place in the world – and therefore to take an interest in social science more broadly, as well as to develop pride in achievement through the accomplishments of their ancestors.

A second possible explanation relates to a fatalistic attitude in regions of the country that

have low aspiration in the aftermath of de-industrialisation or other economic traumas in the recent past. In such areas, decline may be perceived as obviating explanation. This attitude is then reflected into educational and cultural institutions locally: failure may be seen as simple fact of life not requiring explanation. In this case, low aspiration among students becomes more comprehensible.

Finally, it must be asked whether the massive political correctness that now characterises British society and its educational institutions may play a role in minimising interest in local history. That regional concern carries less relevance for many whose roots lie elsewhere is validated by the difficulties some schools are observed to be having in engaging non-indigenous students in commemoration of the first World War. For some of these students, a unique focus on national and international history and geography may carry more appeal. If that view is allowed to dominate offers in school and even in community learning resources, it becomes easier to understand the failure to enlighten young people about the origins of their current issues.

Whatever the combination of these and other factors, the Grimsby fishery illustrates an important conundrum for preparation of young people for work and life. if a centralised curriculum impedes developing a fascination for local history, geography and ecology, then there may follow:
- less likelihood of interest in these disciplines generally
- less appreciation of the milieu from which young people spring, and therefore less pride and confidence in it, leading to lower aspirations and weaker development of desirable character traits of self-esteem, self-confidence, and civic responsibility
- less development of problem-solving skills and a spirit of inquiry, since these often refer to questions requiring answers to real issues, including those relating to the past, such as: "why have we large amounts of processing of foreign-caught fish in Grimsby, but almost none by English fishermen?"

The issue for English education then becomes one of means: how to integrate fully local history and geography into the mandated curriculum.

1.2 Roots of educational distinctiveness

Perhaps an understanding of the roots of English educational distinctiveness can lead us to turn problems into advantages.

We have noted above that strength of British approaches has been empiricism and experimentation – trying different models and methods and observing what works. As a philosophical underpinning of British intellectual traditions, empiricism led to the innovation, creativity and imagination that drove Britain's leadership of the Industrial Revolution – together with the admirable system of apprenticeship that it engendered.

With the abandonment of the apprenticeship system as a driver of innovation and economic competitiveness, the progressive decline of the British economy relative to other countries continued apace. However, the characteristic empiricism continued in the education sector at all levels; and has become the basis of some remarkably successful institutions, models and practices.

These successes have been abetted by enhanced autonomy of schools, whether state-maintained, academies, free schools, grammar schools or independents – as well as by the traditional independence of the university, which continues as a global leader in R and D, and in scholarship generally. This in turn encourages remarkable leaders to emerge and to rise to the top – those who relish challenge, independence, and who evince the confidence to take risks and shoulder responsibility. Supported by charitable trusts and institutions (like the Princes' Education Institute, NCTL or the Future Leaders among others), they have led by example.

However, the profound weakness of the English model - the obverse of the coin – is that it has been difficult to scale up and to generalise their success. In part, this is precisely because this success depends so heavily on idiosyncratic characteristics of leaders who mark their institutions. After their departure, because support is not entrenched and systematised, and because achievement is predicated on their individuality, the lessons learned are not easily transferable. Empiricism leads to admirable examples – but unless supported by consistent and structured systematisation – does not eventuate in system advancement.

The relationship to apprenticeships and the economy is relevant. Even though cultural/philosophical characteristics inherent in empiricism remained part of the British scene, when a vibrant apprenticeship scheme was removed, the country could no longer compete successfully in key areas of the economy, despite the local persistence of qualities of innovation and creativity.

Putting it another way; systematic attainment cannot be founded mainly on isolated examples of individual leadership and innovation, even when these are conspicuous accomplishments of committed individuals with distinguished records of achievement in their locales.

This is one reason for which the English education system appears to be inherently unstable, changeable with bewildering speed. Dependence on individual creativity, commitment and innovation does not lead to a stable model.

Britain must retain those cultural and philosophical underpinnings that made it great. For England, recommendations for educational renewal expressed in this document aim to take advantage of those strengths while adjusting to obviate the weaknesses.

2.0 Positive developments and troubling trends: What do international data tell us about England?

Compilation of all strengths and weaknesses of English primary and secondary education and training would constitute a lengthy list. Some of these will emerge naturally in the course of this review.

However, in order to place English experience and challenges firmly within an international framework, it is useful to begin by drawing attention to elements for which there are OECD-wide comparative data.

2.1 Positive developments

i. Relatively high education spending

Intensified education expenditures are not per se advantageous for a country's prospects: most credible studies show no positive correlation between spending and results, although strategic spending to achieve clearly articulated and publicly supported goals may facilitate improvement.

However, that UK spending per pupil remains significantly above the OECD average even in recessionary periods may indicate a progressive education ethos – an understanding in society that learning and training are fundamental to achievement of individual goals, social cohesion and national prosperity.

a. Between 2000 and 2010, expenditure per pupil at primary, secondary and post-secondary levels increased by 74% - among the highest increases in the OECD – despite the fact that numbers of students declined by 12% over the same period. (England Country Note, OECD Education at a Glance, 2013)

b. Pre-primary education in England is publicly funded at 91.4%, compared with an 82.1% average across the OECD, in recognition of the paramount impact of early childhood development and education. By contrast, only 25.2 % of tertiary education spending in England is public, against an OECD average of 68.4%. It is argued with some justification in the UK country note that the return on investment in ECE is largely public, and to tertiary education largely private; and that therefore the discrepancy with OECD practice is appropriate.

ii. Education participation

While it is the case that, in 2011, only 78% of UK youth were in education and training, compared with an OECD average of 84% (England country note , Education at a Glance, 2013), there has been in the UK substantial improvement in participation; and this trend will accelerate through the mandating of education or training until age 18.

iii. Youth of teaching staff

English teachers are very young. Since the quality of teaching is one of the two most significant variables in determining educational results, this demographic is of potential importance for England.

It is also encouraging that recruitment of higher performing university graduates to a teaching career is improving. The report of DfE to Parliament in January 2015 notes that 17% of new teaching entrants hold a first class degree.

At primary level, 60% of English teachers are younger than 40 and 31% aged less than 30. (England country note). This compares with 41% of primary teachers younger than 40 across the OECD.

At the secondary level only 51% of UK teachers are over 40, compared with 64% across the OECD.

Theoretically, a younger teaching staff should be:

- Products of a more stringent and longer training period
- More flexible and adaptable
- More familiar and positive about the appropriate use of ICT in education, as well as more skilled in ICT(as confirmed by results through PIAAC)
- More likely to assume a pupil-centred (constructivist) approach to teaching, rather than a frontal method based mainly on direct transmission of knowledge to students
- Working collaboratively in teams

Any assumption that a younger teaching staff presents advantages is subject to conditions, including:

- Significantly enhanced sustained, collective and in-depth continuing professional education for teachers.
- Developing professional communities at school level as a prerequisite for successful school improvement programmes.
- Well-structured methods for local and inter-regional collaboration and for systematic school improvement schemes (effective networks identified as instrumental in many studies to the success of school reforms).
- Clear and reasonably consistent policy directions, providing the continuity required for teachers to maintain standards, morale and motivation for continuous improvement.
- Maintenance of considerable school autonomy. Given system coherence and alignment of policy to school improvement programmes, Sir Michael Barber and

colleagues are correct in believing that autonomy of teachers and schools enhances professionalism and competence.

iv. Attractive initial teacher salaries

Countries with superior educational performance are not necessarily those with highest salaries. Luxembourg and Germany, for example, have very high initial and maximum salaries, without remarkable records of system-wide achievement at secondary school level. Conversely, Finland's teacher salaries are quite modest, whilst its results are exceptional. Professional status, good programmes of continuing education and local autonomy appear to provide more powerful inducements than salaries to teaching quality in that country.

In England, attractive initial teacher salaries, intended to encourage teaching as a "first career" choice, may nevertheless motivate and support professionalism.

In England, primary and secondary teachers reach a salary of 44,269 USD after only 10 years. In Finland, primary school teachers earn 37,886 after a full 15 years; upper secondary teachers earn 40,917 after 15 years – and do not reach maximum salary until their 20th year of service.

Across the OECD, primary teachers' salaries after 15 years average 38,136 USD; and 39,934 at upper secondary level. However, maximum average teacher salaries across the OECD at 50,119 (reached after 24 years) are higher than those in England, where the ceiling is attained much earlier and at lower amounts.

If England retains these differences with OECD partners over time, we suggest that it supplement its initial financial attractiveness by offering flexible career tracks (including moving in and out of teaching), superior continuing education opportunities, and enhanced local autonomy.

v. Gender differences not excessive

A number of OECD countries are experiencing large and accelerated disparities in educational performance between males and females that offer serious challenges to their education systems. In Canada, for example, substantial underperformance of males in reading, writing and early school leaving is resulting in disproportionate access and success at university. It is expected that females will soon constitute 66% of university graduates; while many males are neither engaged in training nor employed full-time – a major loss of human capital. In such countries, girls attain roughly equal results as boys in science and mathematics while maintaining or increasing their advantage in literacy – which is a principal key to higher education.

In England, these gender differences are less pronounced; and this should allow the country to focus educational efforts on other priorities. The 2012 PISA (internationalised standardised tests at age 15) reports that the reading advantage for girls over boys is 25

points in England compared to the OECD average of 27; while the slight male advantage in maths and science in England is comparable to the OECD average.

vi. Educational innovation

In 2014, the OECD released its report on “measuring innovation in education”. The report’s “composite innovation index” notes that overall innovation from 2000-2011 in the England system scores marginally higher than the OECD mean, (OECD Measuring Innovation in Education: England system note, 2014, figure 17.1), where innovation is defined as taking place “through either significant changes in the use of a particular educational practice or the emergence of new practices in an educational system”. However, it also notes that educational innovation is generally more prominent in higher education than at primary or secondary levels.

The OECD report on innovation observes a correlation between innovative tendencies and higher expenditures on education; and that correlation is confirmed by the English example.

More importantly, greater levels of innovation are also associated with improved educational outcomes, including in standardised tests, and in equity. The current relative innovativeness of the England system may be interpreted as potentially encouraging of future amelioration.

The five most significant innovations in English schools policy and practice as assessed by the OECD:

- Enhanced remedial mathematics and science in secondary schools
- Enhanced enrichment education in secondary and primary schools, especially in mathematics and science
- More external evaluation of primary and secondary school classrooms (In England this reflects the strong presence of OFSTED)
- Increased peer collaboration among secondary mathematics teachers
- More teacher observation of primary school classrooms

The four most significant innovations in English pedagogic practice:

- Improved requirement that secondary school science students describe and elaborate on natural phenomena
- More self-directed work in secondary science
- Improved use of secondary school science lessons to illuminate everyday experience
- More individualised reading instruction in primary school

vii. Class size

Most international research indicates that class size does not generally exert powerful influences over educational outcomes. However, when this variable is significant, it is in relation to younger pupils and to pupils with learning difficulties. We believe that students should be encouraged to become self-directed, independent learners by upper secondary level.

This implies that effective distribution of educational resources would prioritise the earlier grades – reduced class sizes at primary level as compared with secondary school. In almost all OECD countries this is not the case: average class size is invariably lower at secondary level. (Education Today, 2013, figure 2.2).

The notable exceptions are Switzerland and the UK, which sensibly offer smaller class sizes at primary school level.

viii. A dynamic and high quality university system

Although they are not a focus of this paper, universities exert an important influence on the primary and secondary systems. That the English university system is of high quality in both teaching and research contributes significantly to the education ethos of the country.

2.2 Troubling trends

i. England results in PISA standardised testing of 15 year olds

In considering the most recent results (2012) for England from PISA, some British journalistic reports and commentators have expressed alarm: “British schoolchildren are lagging dramatically behind their peers in the Far East despite a multi-billion pound rise in education spending” (Telegraph, 03 December, 2013).

In fact, it is principally the addition of several countries and economies that performed very well that caused British results to slip in relation to international rankings. For 2012, PISA results show no significant difference between UK and OECD averages for any of the three domains of mathematics, science and reading.

The OECD/UK comparisons are as follows:

Table 1: PISA results between OECD and UK in 2012

	OECD mean	UK mean
Math	494	494
Science	501	514
Reading	496	499

Although there is no statistically significant difference between the UK and partner countries for any of these key subject areas, it is certainly a troubling trend that the UK has failed to increase its absolute scores in any of these competencies since 2006.

The change in UK performance since the previous assessment in 2009:

Table 2: Percentage change in UK PISA performance since 2009 to 2012

in math	in science	in reading
- 0.3%	- 0.1%	0.7%

Whilst other countries have improved their performance and therefore their ranking through better educational practice, the UK has not.

In addition, there are two considerations that must be of particular concern to England:

1. Elite performers in key subject areas constitute drivers of economic prosperity. Therefore, the proportion of learners who are top performers is an important indicator.

   In the PISA testing process, achievement of the levels 5 or 6 confirms top performance. In the example of mathematics, levels 5 or 6 are obtained in Finland by 15.3 % of 15 year olds, in Taipei by 37.2%, in Singapore by 40.0%; and the OECD on average is 12.6%. In the UK, only 11.8% perform at top levels.

2. In some countries, a deficiency of elite performers may be partially compensated by educational performance equity, by which there are smaller gaps between higher and lower performers. Such, however, is neither the case in the UK, where there is neither elite performance nor notable equity in educational outcomes in key areas.

Cognizance of these two considerations, in combination with the languishing of UK absolute scores over time, marks England PISA results as a troubling trend.

However, as the analysis of outcomes from other OECD standardised testing underlines, the significance of PISA trends is far less compelling than results from the OECD Programme for International Assessment of Adult Competences.

ii. England youth performance in the Programme for International Assessment of Adult Competencies is relatively poor

When we consider adequacy of preparation of young people for both the workplace and for successfully navigating their world socially and culturally, the Programme of International Assessment of Adult Competencies (PIAAC) standardised tests provides the best comparative measure.

In designing PIAAC and its adult skills international survey, the OECD recognised that its Programme for International Student Assessment (PISA), while important in indicating national educational outcomes at age 15, has limited capacity to predict adult

competencies. Adult skills are informed by upper secondary and tertiary education and by further learning and training – in the workplace and in the community.

What matters most are the skills demonstrable in the working age population, those abilities that enable us to be productive and effective in all phases of the life-cycle. These are the skills measured by PIAAC for adults aged 16-65 by uniform criteria across the OECD in 2012.

The expectation for all countries is that younger cohorts will outperform older groups in the three key competencies that are assessed by standardised testing: literacy, numeracy and problem-solving in technology-rich environments. This surmise is predicated on the steady global improvement in literacy, numeracy and use of information and communications technology.

In appraising national results of the OECD international adult skills survey, we may conceive of four patterns into which national outcomes might fall:

- **Result #1**: Countries whose older cohorts perform comparatively well internationally, reflecting established and successful education systems; and whose younger cohorts exhibit equally good results when compared against their international peers. Finland is an example of a steady leading educational context.
- **Result #2:** Countries whose comparative performance is consistently low – the reverse image of Finland. In these countries, older cohorts do not compare well against competitors, and show no improvement when their younger cohorts are compared against peers. Spain and the United States might fall into this category.
- **Result #3:** Countries whose older cohorts achieve poorer results than their international peers, reflecting less well developed educational systems in past decades; but who are moving strongly in positive directions, as demonstrated by superior scores of younger cohorts on comparison to competitor countries. Among OECD countries, Korea is the outstanding example of this positive trend, a country about which one may observe that it “started slowly but is now in high gear”
- **Result #4:** Countries whose established educational systems were comparatively higher performers as illustrated by the good scores of their older adults. However, the trend line is down; these countries are moving in negative direction, as indicated by lower comparative scores among the younger cohorts – the reverse image of Korea.

Among these countries, England is the clearest example. In both literacy and numeracy, for each of the age bands from the 55-65 group to the 16-24 cohort, English scores decline progressively. In the example of literacy, English people aged 55-65 rank third in the OECD whilst the 19-24 group ranks 20th –even lower than the U.S.

Moreover, England is unique in the developed world as the only OECD country in which literacy scores achieved by the oldest group are actually higher than those achieved by the youngest cohort – in direct contradiction to the expectation that the younger cohorts

globally are benefitting from improved education. That for England a similar result is observed for numeracy suggests that England's competency prospects are much more troubling than PISA scores would appear to indicate. In addition, the overall performance of English adults in numeracy was significantly below the OECD average.

What this all means is captured succinctly by a BIS research paper from October, 2013: "other countries are improving the literacy and numeracy skills of younger people at a faster rate than in England. Korea is a particularly good example of a country with generally similar overall performance to England, but a very different profile of skills by different age groups. Whereas in England, on average, our younger adults are performing less well compared with other countries, in Korea, the opposite is true – their older adults are less skilled compared with other participating countries, but their younger adults have very good skills compared with other participating countries." (Department of Business, Innovation and Skills, October 8, 2013, p.17).

Taking the example of literacy: the oldest age cohort in Korea scores an enormous 47 points less than the youngest cohort; and older Koreans rank 19th in the OECD. By contrast, the youngest Korean cohort ranks 2nd – surely a very positive development. The oldest English cohort ranks 3rd in OECD literacy, with an advantage of 6 points over the youngest group, which ranks 18th among participating OECD countries.

Because analysis of the key everyday competencies of adults –especially among younger people - carries much more significance than standardised testing of 15 year olds through PISA, it impels us to reflect on the direction taken by English education and training over the past two decades.

There is no alternative for England but to acknowledge these data as a profoundly troubling trend – a trend which at first glance at English performance is obscured by the overall near-average UK results. However, when one assesses English results in detail, and considers them in the context of the relationship between the key educational variable and a country's economic and social prospects, the challenge to the nation becomes starkly delineated.

iii. Transition from study to work

Relatively poor essential skills among English youth may account in part for the troubling trend affecting transition from school to work.

In 2010, only 49% of UK youth aged 15-19 were employed when not in education. (OECD, Education at a Glance, 2012).

The length of expected unemployment for youth (15-29) is 2.3 years in the UK, compared with 1.7 years in Germany and Australia and a mean of 2.2 years across the OECD (Education at a Glance, 2013, UK country note).

The proportion not in education or training (NEET) and without upper secondary completion is 10 points higher in the UK than the OECD average. This especially affects the 20-24 age group, which experienced an increase in unemployment from 15.4% to 19.1% from 2000 to 2011.

The key factor in reducing NEET is completion of upper secondary or tertiary education. The mandating in England of education or training until age 18 will facilitate reduction in NEET in this country. However, the failure to develop an adequate level of essential skills remains problematic.

iv. Inefficient use of instruction time in schools

We have seen that there is no positive correlation between expenditure in education and results as measured by standardised testing, nor between teacher salaries and results. A similar analysis applies to hours of instruction: “high intended hours of instruction for those in school between the ages of 7 and 14 bear no obvious association with higher academic performance at age 15.” (OECD, Education at a Glance, 2013, figure 2.4) The OECD also notes that “high performance is associated with high relative time in regular lessons and moderate absolute time” (p.34)

Thus, for example, Finland and Estonia perform well on PISA tests while mandating the lowest number of instruction hours in the OECD. (OECD Education Today, 2013, p.35) England, on the other hand, requires a number of instruction hours above the OECD mean; but is failing to achieve improvement in educational performance among 15 year olds.

In term of cost and time, therefore, English class time may be interpreted as comparatively inefficient.

v. Vocational education and training insufficiently developed at secondary school level

In countries like Germany, Switzerland, Austria and Denmark, high proportions of students at the upper secondary level are enrolled in vocational programmes. (2010 data from OECD Education at a Glance, 2012). In Austria and Switzerland, this proportion is two-thirds or more; and the OECD mean for this measure is 44%. In the UK, by contrast, only 32% of students were in vocational programmes.

Participation in VET programmes is a factor that can partially explain differences in NEET levels among countries – the prevalence of youth inactivity. Among the 13 countries with above-average participation of 15-19 year olds in upper secondary VET, 11 had below-average levels of NEET. Of the 15 countries with above-average NEET – including England – 13 have lower-than average participation in VET.

Also, “across OECD countries, among 25-64 year olds with upper secondary education as highest level of education, the employment rate of adults with vocational qualifications was 75% on average, while it was 69% on average for those with general qualifications.

In Denmark and Germany, the employment rate for adults with a vocational upper secondary education is 15 percentage points or more above the employment rate for adults with a general upper secondary education" (OECD London Education World Forum, January, 2015).

2.3 Summary

It may be argued, then, that English young people on average are being equipped neither with essential skill levels adequate to career development and general societal navigation (PIAAC results); nor with those technical competencies that can smooth transition to the workforce (participation in VET).

The educational conditions that are being created today will determine the successful societies of tomorrow. England possesses many strengths such as innovative approaches; effective provision and imagination in some institutions; some specialist colleges with international reputations; some generalist colleges with successful links to employers; some universities which display strong moral purpose in collaborating with FE colleges, academies, UTCs and disadvantaged populations.

But there is also this salient observation in the Wolf review on vocational education: in England strengths occur **despite** rather than **because** of its systems and structures. That implies that the conditions that have been established are not conducive to optimal results in future.

3.0 Points of convergent thinking (prevailing views among key informants)

It is crucial to identify points of convergent thinking because these represent optimal points of departure for action to improvement. “Convergence” in a field as complex as education can never imply consensus; but that there is sufficient common ground for moving forward.

Interaction with key informants from many disciplines and diverse responsibilities yields an impression of much more receptivity to options for correcting deficiencies than might have been predicted. The gap in thinking between business leaders, higher education, officials in DfE, leading practitioners and academics appears relatively small.

Nor is there vast divergence in positions of political parties on education and training. An optimistic view of opportune timing for developing sustainable policy directions and strategies for the preparation of well-rounded young people for success in adult life is therefore realistic.

3.1 Strengths of English education and training

Among societies as well as individuals, progress is often achieved as much by identifying, preserving and building on strengths as by adopting a deficiency model founded on ceaseless grappling with perceived shortcomings. It was therefore essential for this review that some English educational advantages were acknowledged.

(Unusually for OECD countries, many key informants in England struggled to catalogue the country’s favourable traits. It was unclear whether this is because of excessive modesty, pessimism, or low national self-respect.)

- The current primary/secondary system works well for the higher attaining two-thirds who are focussed on the EBacc. Subjects of English, mathematics, history or geography, sciences and a language.
- Teacher initial education is of good quality (although key informants also introduce caveats concerning the direction taken recently to alter the leading role traditionally taken by universities)
- There are some innovative models of teaching and learning at all levels, assisted by the NCTL, Future Leaders and teaching schools initiatives
- A strong and diverse university system, especially in support of research and development.
- Local comprehensive schools (including multi-ethnic) are generally good or outstanding for the majority of learners – but not for the disadvantaged, as in the example of white working class underperformance.

- The Office for Standard in Education (Ofsted) provides solid accountability for individual school performance (as opposed to system performance, which is not adequately measured). Emphasis on accountability gives rise to data sets revolving around individual school performance and to data literacy in schools. Hence, many secondary schools have full-time data managers – unusual in the OECD.
- England possesses some rich data sets that could inform policy if further developed. These include a national student data base. (These are rich data sets in the sense of their retroactive use but not necessarily in prospective deployment. Analogous to an auditing function in accounting, rather than a management function – which would impact more on future practices)
- Research Ed, teaching schools and the Education Endowment Fund (EEF) do some good work in extending the evidence base for practice.
- The Wolf Review on vocational training has imparted a long-overdue logic for an overhaul of apprenticeships and other forms of VET – and is being appropriately implemented by government

3.2 Weaknesses of English education and training

- Skills acquisition for those who do not attend university, especially the lowest attaining 35%.
- Vocational progression, with inadequate development of mid and high level technical skills that used to be delivered in part through apprenticeships and in part through polytechnics, many of which were converted to universities. Deficiency in technical skills delays development of key public infrastructure (e.g. high speed trains).
- The current tangled mass of vocational qualifications is counter-productive and not recognised by employers, who rely on established and clear signals of education. (Even in vocational contexts, transferable skills – and especially rigorous standards for literacy and numeracy – are taken as signals of occupational potential and far more important than transient technical skills. This is why the requirement for all to be competent in numeracy and literacy is core for all learners, as reflected in national curricular changes).
- Genuine apprenticeship training is valued by employers and learners alike. But many apprenticeships designated as such in England have not been worthy of the name.
- Vocational training and apprenticeships in particular, have not been sufficiently and directly developed by employers and educational institutions working together and facilitated by government policy. Instead, they have been developed through a third party group of external providers.

- Misalignment: VET is perceived as second class. Rigour should not imply more academic. There appears currently to be less – not more –collaboration between colleges and universities (apparently due to funding structure, policies, and ceilings). There ought to exist numerous pathways for successful learning outcomes and to advancement in education.
- Careers advice currently is poor, placing low value on vocational pathways.
- Issues of character, attitudes and behaviour (previously referred to as employability skills by industry) are also significant to employers in particular and require attention. But these skills apply well beyond success at work.
- More emphasis needed on the early years as setting the conditions of future success in learning: currently a high proportion of children enter school significantly behind.
- The English system is generally inefficient because of multiple, complex, and confusing structures and autonomous or regulatory bodies, especially in relation to VET (awarding, Ofqual, use of qualifications in accountability and funding, multiple exam boards, providers developing apprenticeships etc.).
- A very large discrepancy between aspiration and ambition on the one hand (98% of parents wish their children to attend university) and high levels of disengagement and dissatisfaction on the other. Disengagement is especially high among working class whites, who frequently display a fatalistic attitude (“it is out of my hands”, “I won’t get it anyway”).

3.3 Other points of convergence

- More policy stability is needed in English education and training, especially for vocational education. Sustainability will improve if policy less driven by ideology.
- The evidence base for development of policy needs strengthening, even though some organisations do good work (e.g. Research Ed., teaching schools, EEF).
- Weak research and analytic capacity is exacerbated by limited access to academics in pursuit of applied research with impact on policy and practice. Most academic research is perceived as esoteric and curiosity-driven. There is no systematic triangulation between policy makers, academic researchers and educational institutions (and their educators).
- There is weak capacity to translate research into knowledge mobilisation and hence have an impact on policy.
- Thought should be given to DfE obtaining ongoing advice from respected organisations “on the ground”, rather than only on an ad-hoc or restricted basis (e.g. The Wolf review of vocational training or small groups of interested personalities on various current issues).

- Attention to development of personal qualities like self-esteem, confidence, resilience and civic responsibility is warranted, since these are foundational for academic and vocational success.
- Attention to careers advice should involve leadership by schools and school networks, and not just intervention by external agencies.
- A curious irony: whereas England purports to be moving progressively towards enhanced local autonomy, there remains a strong perception that the locus of control continues to be centralised; and that there exists a dichotomy between centralisation of some aspects and decentralisation of others, inducing a sense of incoherence.

Recommendation 1

England should fully utilise the leverage afforded by convergence to give policy priority to those many areas of rough agreement, rather than tackle issues that are not now amenable to sustained collective engagement ("buy-in").

To do so will have several beneficial effects:

- It will foster partnership between government and civil society on educational issues.
- It will bring more stability to the process of policy elaboration.
- Engagement of partners will place some brakes on over-centralising empirical approaches to policy.
- It will enhance the commitment of educators, communities and social partners.

4.0 Key issues for Vocational education and training (VET), postsecondary, primary and secondary, and early childhood education

This section is organised by key issues in the pre-primary primary/secondary/training component of England's education system. Findings are drawn from observations of educational practice, documentary information and meetings with key informants. Recommendations reflect both British and international experience and outcomes.

4.1 Vocational education and training (VET)

4.1.1 Introduction

It has been argued by some key informants that, despite rhetoric to the contrary, evidence shows that the UK labour market does not demand high level skills (and apprenticeships in particular); and that there is meagre reinforcement of skills acquisition from the labour market. This observation is supported by the absence of any national PLAR and of the inadequate offer in England of workplace education and training.

When skills are not reinforced or even demanded by the labour market, poor English results in PIAAC become more understandable. If national and regional economic development schemes are insufficiently robust, enhancing skills through apprenticeships and other VET may merely over-qualify people for a hypothetical economy, rather than the real one. One key informant characterized this phenomenon in respect of apprenticeships: "in England there are low expectations for apprenticeships because we have the laziest employers in the developed world".

The Social Mobility Commission reports (2014): "there is a lack of a plan to prepare our young people for the world of work and support them through this complex transition", despite some improvement in FE colleges and reduction in the proportions in NEET. Recommendations by the Commission to improve transitions are set out in a sensible five-point plan:

- Universal quality careers advice
- Action on failing FE providers
- Expanding apprenticeships for young people (which England is now undertaking to do)
- Youth transition partnerships to improve moves from school to work
- A day one offer to young unemployment

We need to consider several aspects of transition and VET.

4.1.2 VET in secondary school

The offer of VET in English upper secondary schools is well below the OECD average and only about half of that of countries that lead in apprenticeship training, in technical innovation and expertise, and in better employment rates for youth.

Legislating attendance at school or apprenticeships until age 18 is necessary but insufficient for furtherance of VET at secondary level. Learning must be demonstrated to be relevant, especially for disaffected white boys (whose mean literacy scores are very low) for whom the world of work could be seen as core.

Recommendation 2

Measurable goals for the provision of careers advice should be set for individual schools, school chains, and regions. These should involve demonstration of competence, and of knowledgeable and complete information-provision by guidance counsellors. The recommendation from the Wolf review regarding lower-attaining students must be applied with vigour: accountability frameworks must intervene to ensure that schools do not divert these pupils into dead-end “qualifications”.

Rigour in English education has in recent years been identified with academic tracks. There is an unfortunate perception that success means A levels.

Recommendation 3

England should pursue its current emphasis on rigour in core disciplines for all pre-16 students, not just those who appear to prefer an academic track; and young people should therefore “not be tracked in irreversible ways” (Wolf p. 11). When this is achieved, it will become safer for students to opt for VET than is now the case.

Recommendation 4

Immediate implementation of Wolf recommendation 26: introduction of a performance indicator “which focuses on the whole distribution of performance within a school, including those and the top and bottom ends of the distribution”.

Good careers advice is a key to both improvement of VET as a desirable pathway to educational success; and to enhancement of the responsiveness of the educational system to labour market and social changes.

Recommendation 5
If the concept of a company to lead improvement of careers advice moves forward, it should be accompanied by real effort to synthesise its work with the school environment and staff.

Poor current careers advice in secondary school relates in large part to the incentives and disincentives that are embedded in an education system which is characterised by private providers of qualifications and exams, combined with centralised school accountability systems. Although it would be desirable to replace these mechanisms by a state-controlled exam process, certification and qualifications system, English customs may prove too deeply entrenched for this to occur without distracting from the goal of improvement of VET.

Most successful approaches to careers advice and transition originate from within the school, in addition to that emanating from an external agency that is not intrinsic to the school culture and environment.

4.1.3 Apprenticeships

Ownership by industry

The voice of employers has not been heard sufficiently directly in development and offer of apprenticeships. Apprenticeships have perhaps been “in a bubble”, removed from business, if not excluding it. This has maintained some stability in the system at the expense of the required dynamism and flexibility.

It has meant that the model has been framed by a narrative of skills of today (i.e. specific job functions) and of current skills shortages, whereas we need to think about the skills of tomorrow. Although the skills of the future are not precisely known, it is clear that workers must have foundational /transferable/stretched skills. In apprenticeships, there must be a current component and a future knowledge component.

Sector councils have been the intermediary bodies through which programmes have been defined; and these have perhaps been too narrow, essentially for a particular job function, not stretching the skills set. Sector councils have been described as producing “a veneer of engagement with industry”, but could not represent their voices, which need to be expressed directly.

For Further Education colleges, apprenticeships would logically have been a major priority. Surprisingly, they offer only about 20% of these. The bulk of apprenticeships are organised by private company providers, often using government funds to make a free offer to companies to take on narrowly defined apprenticeships. We have seen that many of these have been of short duration and of low quality.

Recommendation 6
Apprenticeships should be driven primarily by employers. Industry would select mode of provision. Standards and curriculum used should reflect needs of their industry and sector. But they must also provide those transferable skills that will permit graduates to operate effectively in the wider economy.

Note: over the past two years, progress has been made - and should be strongly supported and resourced by DfE - with respect to apprenticeships, work experience for students and the 16-19 group generally.

Winning conditions

Common characteristics of successful apprenticeships appear in recent English experience to include:

- Five good GCSEs, including high level maths and science
- A sufficient number of credits
- Training in how to interview with potential employers
- Adequate funding
- Independent assessment of competence at the conclusion of training
- Employer-driven by pro-active employers, engaging in collaboration and in forward planning of at least 2-3 years, and providing some funding
- An industrialised region, with a manufacturing base
- Good local schools, not susceptible to reducing standards in order to meet GSCE targets, providing good careers advice whether through school of through a manufacturing and training centre
- Good range of offer of VET in local schools
- UTCs in the region
- Good public infrastructure and transportation, so that apprentices may easily travel to the site
- Industrial trainers actually from industry, not from an FE college. This is because there appear to exist major differences in approach in equipment, in soft skills, in behaviour and in shop floor experience
- Continuity in approach, avoiding frequent changes in the model
- Offer of apprenticeships including foundational skills, attitudes and behaviour
- An economic development plan and strategy, nationally but especially locally, that supports and combines with VET and apprenticeships to ensure that the labour market encourages and rewards training efforts

Recommendation 7
Developers of apprenticeships should strive to assemble the winning conditions of current oversubscribed apprenticeship programmes. Employer organisations should maintain an accurate information base reflecting successful experience and practice.

A coherent plan of business support

The examples of Sheffield, Bristol, Coventry and Strathclyde and of the Catapult programme generally (AMRC, manufacturing technology centre, national composite centre, advanced forming research centre) illustrate that increase in the numbers of apprenticeships of higher quality than in the past, should be accompanied by supporting steps, structures and investments. These include individual leadership and entrepreneurship; and local, regional or national investment agencies. Under these conditions, replicability of the Sheffield model elsewhere in the UK is possible. The winning combination appears to be: an entrepreneurial strand (which is endemic to British culture); local infrastructure; investment; national support.

With respect to the need for a coherent plan of business support to accompany enhanced training, it is important to recognise the current mismatch between educational qualifications and jobs. There is no reason to assume that more qualifications will inexorably lead to economic take-off. Instead, there may be "people without jobs and jobs without people": "Research confirms that the number of individuals holding a qualification at a given level is far higher than the number of jobs that required that level of certificate" (Wolf, p.29). Put another way: "the UK workforce, in aggregate, already possesses far more qualifications …than current occupations require". It is reasonable to believe that more high quality apprenticeship and other training opportunities will lead only to frustration and disaffection if not supported by a coherent plan of business support.

Although received wisdom in many OECD countries is that the demand for high level skills represents the labour market of the future, this assumption is not confirmed by trends in the UK, where jobs in manufacturing and middle-level administration are stagnating or dwindling. Instead, there is growth in low skills jobs such as cleaning and retail. Very significantly, the level of demand in the UK for levels of education above compulsory is the second lowest among the 22 OECD countries participating in PIAAC. We must infer from this that training and education will NOT automatically drive economic development. Indeed, demand for higher level training and skills must come from economic development initiatives.

Currently, whereas 20% of Germany's economy is in manufacturing, the proportion in the UK is 12%. Although there is significant manufacturing in the UK, it is not R and D intensive. It is mainly automated high end, working in "lean" organisations, not demanding of high levels of direction and skill. In the current British model, perhaps there

is not adequate reason to “keep up with the Schmidts” (Economist magazine, April 26,2014).

But there is no reason to resign oneself to the inevitability of further decline of British manufacturing. A key is to avoid the tendency to “invest just enough to fail”- implying that Britons, whether in business or government policy, recognise and seize opportunity initially but do not have the conviction and structures to see it through. Stability is needed: sticking with one model over time, as Germanic countries often have done, avoiding frequent modifications, change of support or funding.

Workplace and lifelong learning

Workplace education and training in Britain is now reportedly well below its level in 1994, when it was not outstanding. Employers appear to prefer to find ready trained outsiders for jobs (hire and fire) rather than train. There is no clear countervailing policy, such as learning accounts or a national Prior Learning Assessment and Recognition.

Recommendation 8
Although attempts may in the past have failed to create a system of assessment of prior learning and its recognition on a national basis, England should strive to achieve this goal. Not only is such a system consistent with new emphasis on experiential learning in secondary school; it will also lead to better labour market matching between skills and employers’ needs.

We have noted with regret the conversion of polytechnics to universities more than 20 years ago. This has been a factor in regression of the technical class in Britain. Examples: coders, engineers’ assistants. As a result, Britain either brings these skills in from abroad or utilises university graduates in this capacity. There is evidence that the paucity of technical skills has slowed the country’s development of crucial infrastructure, including high speed trains.

Inadequate public infrastructure in comparison to more technically proficient societies in turn acts as a brake on eliciting interest of young people in a technical career. When young people believe that their skills are valued and prestigious, they are more inclined to follow that pathway. Conversely, as in Britain and most of North America, underdeveloped public infrastructure impedes enthusiasm for acquisition of technical skills – with particularly negative consequences for male human capital in an era of male underperformance in literacy.

There are only weakly developed vocational pathways into the labour market. Further education colleges in general focus more on remediation than on the more demanding technical/vocational side.

Recommendation 9
England should proceed with the establishment of a series of prestigious technical institutions in all regions of the country, with elite vocational provision at apprenticeship levels 4/5. The high quality of these institutions will produce a cascading effect of interest and attainment in technical pursuits.

4.2 Postsecondary training institutions

We have observed the inflexibility of options available to English youth. English education is characterised by early streaming – either subtle or overt – and real difficulty for students who "change their mind" or wish to leave their options open. Unlike systems in some central and northern European countries, where students routinely access different forms of education and training, many English youth are confined by these early choices. This, in turn, leads to more suspicion or outright rejection of the vocational route through the perception that it constitutes the alternative for failed students.

Unlike in North America, where millions of students annually transfer from universities to applied programmes in community colleges – and vice versa – facilitated by the many arrangements in place between those forms of institutions, in England such flexibility is relatively rare; and the lack thereof constrains all within the sector.

Remarkable also in England is the proclivity to rely on universities to take in increasing proportions of students who will continue their education beyond the required age. English education needs urgently to create seamless pathways between secondary schools, further education, and HE, such that:

- A learning architecture may be created. "Architecture" implies both outstanding functional qualities and outstanding aesthetics – a seamless movement from one phase of a building to another
- Flexibility and mobility become a reality between and among secondary, VET and academic routes: UTCs and HE; and FE and HE. Permeability and flexibility must replace unidimensional tracks as the norm.

Let us briefly examine the current state of further and higher education in England in order to ascertain the distance to such a goal.

With respect to FE colleges, we have observed that currently:

- They are perceived by many as a rescue choice
- They are of starkly varied quality
- They have not been able to lead a high proportion of apprenticeships
- Many are focussed on remediation for students who have not progressed academically
- A substantial number are experiencing financial stresses
- Few are strongly linked to universities in their region
- They now face new competition in the form of UTCs

The stringent challenges facing this sector, as for VET generally, are not all of their own making. Success of the FE college model is contingent upon the primary, secondary and tertiary education systems acquiring more “bandwith” and richness, so that early irreversible choices can be avoided; and that students can move across, with more tolerance of diverse pathways. (See Anecdote 5)

Anecdote 5: The 11 plus photograph

Many believe that a broadening of educational opportunity - bandwidth - is critical. But if educational directions continue to be determined as early in life as they have been in the past; if vocational choices cannot eventuate in other pathways, the 11 plus photograph will not be a thing of that past.

In a small town in the Yorkshire of the 1960s a photograph was taken of the 12 participants in a school play. The pupils each took the 11 plus exams. Approximately half of the pupils passed and half did not, including perhaps one or two whose abilities appeared to be on par with the successful group.

All the successful pupils went on to stellar careers nationally and internationally. Those who failed lived {some shorter} lives of insecure employment and relative deprivation. Perhaps had the opportunities available in vocational tracks been more permeable and flexible, their fates could have been different.

If the vocational education and academic tracks are to be brought closer together; if flexible pathways between the two are to be built; if vocational choices are to be perceived and to be in fact as rigorous as the academic, there cannot be future photographs depicting a story as poignant as this one.

With respect to universities, a positive development in England is that they have over the past two decades become increasingly engaged in preparation for work. (For a compilation by John Coyne of illustrations of this trend, see the report “Forging Futures”, from UKCES and UUK, 2014). The form of engagement varies, depending on whether they are traditional or have recently emerged from polytechnics. But we observed from their outreach programmes that even traditional universities have to some extent absorbed polytechnic values.

In some universities, the relationship with local industry has evolved from an end-on model to a permeable intertwining by which learning takes place in an environment in which there exists no barrier between the academic and the industrial settings. In these cases, the world of work influences and helps to shape curricula and preparation for work and life. These HE institutions choose to collaborate closely with regional FE colleges, UTCs, academies, free and studio schools; and to reach out to disadvantaged communities to ensure improved access - including access to Russell Group universities.

However, we observe also the relative fragility of this desirable model. It does appear to depend on the qualities of individual leadership as well as, to a lesser extent, institutional character. It is unsupported by instruments of accountability. In this it reflects the tendency of the entire educational system. The principal problem is not the concept of accountability, which should be stringent, but rather the measure of accountability. In their relationships, for example, with UTCs, academies, free schools and other institutions, universities are held accountable individually, not on measures taken collectively. Example: drawing students from the lower 40% is crucial but often requires contextual offers to potential entrants to facilitate it. Few Russell Group universities do this because incentives and accountability measures in place do not encourage it.

Despite these structural and accountability impediments, efforts by HE have resulted in improvement in attendance from lower SES brackets. In 20014, only 14% of the lowest quintile attended university. That figure is now increased to 21% and the educational futures of 16 year olds are therefore improved: 44% go on to university and 40% attain degrees. However, that 15% or more of young people leave the educational system with no qualifications at all speaks to systemic inflexibility.

HE institutions do not receive credit for collaborative action. If they choose to engage with the vocational sector and with secondary schools they must sacrifice resources – and potentially their standing in some academic circles in order to make this significant commitment.

Universities must become flexible enough to accept students from vocational learning pathways but they must also be encouraged, supported and incentivised to do this. England needs enhanced awareness of the possibilities offered by a mixed vocational and academic pathway.

It is apparent to an external observer that a fundamental problem in English education is that it is insufficiently joined up. Thus, for example, the lack of flexible pathways at and after 16-19 echoes right down to key stages two and four. Conversely, the unintended consequences of individual school accountability resonates at FE and the HE level, where the lack of collective accountability and of credit for inter-institutional collaboration dampens markedly impulses to work in the common interest.

Future educational progress in England will depend heavily on its ability to forge a joined-up educational policy that incentivises supportive and collaborative relationships among UTCs, HE and secondary schools and that enables and optimises flexibility in student pathways.

Recommendation 10
Through consistent and joined-up educational policy, develop seamless pathways between secondary schools, FE and HE, creating a learning architecture.

Recommendation 11
Through consistently coherent educational policies, England should support through accountability provisions those HE institutions that collaborate intensively with FE colleges, UTCs, and secondary schools of all types.

4.2.1 University technical colleges

UTCs are a logical response to the dissolution of polytechnics. By focusing on the offer of technically oriented courses of study, they fill partially the huge lacuna in English VET. Although their effectiveness appears thus far to have been uneven, no firm judgement may yet be made, in part because some interveners in the system have not been receptive to this new role. Some guidance counsellors may even have denigrated it, as well as apprenticeships. Given the recent pattern in England of early abandonment of new approaches, it is important that this initiative be given an opportunity to succeed.

While it is true that their inception further fragments an already disjointed system, in the absence of concerted efforts to enhance VET and disburse adequate careers advice on schools, something had to be done to:

- Improve articulation between universities and VET.

- Provide means for the training of young people for technical work in support of industry – especially since FE colleges have failed adequately to do so.
- Improve the links between employers and the education sector.

In addition, there is no prima facie reason for which entry into a UTC should impede adequate performance in academic disciplines, as long as the UTC meets national curriculum requirements that permit the flexibility to enter university subsequently. In this regard it is imperative that all UTCs ensure the undertaking of good GSCEs.

Recommendation 12
England should persevere with the UTC model. It should also ensure that secondary school career advisors be fully informed and informative to students regarding the attributes of this option.

4.3 Primary and secondary schools

4.3.1 Introduction

A refrain emerging from this report is that England must go well beyond centralised school accountability mechanisms if it wishes to improve its outcomes. We have seen that perverse effects of the accountability framework have occurred.

Accountability drives qualifications, which in turn drives curriculum. It is difficult to focus on the intrinsic value to students of types of qualifications or curriculum because these are immediately linked back to the centralised accountability frameworks that drive them. How can such an accountability system serve everybody, including higher attaining students?

Under current structures and habits, tweaking accountability systems is the principal means of leveraging change. Therefore, frameworks continue to be adjusted for new contexts, rather than bringing structures up to date with requirements for improvement.

Understanding that mechanisms like inspectorates and league tables are deeply entrenched, we must examine what other instruments may help to improve practice and push England forward in education.

The two factors with by far the greatest effect size in primary and secondary education are the characteristics of pupils and the quality and skills of teachers and leaders.

4.3.2 Teaching College

Experience in a number of OECD jurisdictions has demonstrated that improvement can be more powerfully influenced by advancing teaching expertise than by central accountability levers or structural adjustment. Colleges of teachers potentially offer several benefits:

- They connect practitioners and researchers who can share knowledge and disseminate evidence that can influence practice and set out professional standards. A comparable model in the science field in Germany – the Wissenschaftsrat – has been highly successful in raising the effectiveness of scientific inquiry and its practical uses. Medicine in many countries –including Britain – has similar initiatives for translating research, and incentivising and inciting professionals to make use of it. (an illustration in Britain is the National Institute for Care Excellence)
- The College can provide for alternative conversations between teachers' unions and governments, since their interest, centred on students, is on professional standards and practice, rather than on working conditions and remuneration.
- A college of teaching can create expectations for initial and ongoing teacher training and professional development, and provide a rigorous means of offering certification and recognition to teachers who attain high standards of practice. In the context of England's very young teaching cadre, this function would be especially influential. A College of Teaching would assist in rebalancing accountability instruments that are currently heavily weighted towards individual institutions and head teachers. The advent of a college of teaching would emphasize collective responsibility for standards and quality.
- As an expression of a desire to make teaching practice evidence-based, the grassroots Research Ed project has demonstrated how keenly England's practitioners want their system and schools to succeed. A teaching college will provide substantive assistance to the development of this evidence-informed approach and to mobilisation of knowledge.

Recommendation 13
England should establish a College of Teaching that will unite practitioners in common purpose and will emphasize collective responsibility for standards and quality.

4.3.3 Involvement of industry in education

Business is not perceived as a significant partner in primary/secondary education, possibly on the erroneous premise that its primary contribution lies in training for employment and in funding aspects of tertiary education and research.

Recommendation 14
In any national framework established for purposes of setting goals and monitoring progress in education, employer organisations – including in the public sector- should take a role.

Understanding the controversy surrounding recruitment of teachers who do not qualify through the usual routes, we believe that a strong argument exists nonetheless for bringing teachers into schools on a flexible basis who are skilled in the teaching of STEM subjects – but not necessarily holding the usual teaching credentials. We note from the DfE January, 2015 report to Parliament that recruitment to teaching programs in the critical domains of science, technology, engineering and mathematics continues to fall considerably short of requirements.

We observe also that, in a demand-driven and learner-centred educational future, the teaching profession must become more permeable: teaching need not be a lifelong vocation; and the profession becomes more attractive if people may move in and out of it.

Recommendation 15
Efforts should be made by DfE, working with industry, to identify and attract persons who would strengthen teaching of STEM subjects in secondary school.

4.3.4 Curriculum

England must act with urgency to remedy the starkly inferior literacy and numeracy skills of English young people in comparison to expected superiority to their elders.

Curriculum reform has quite appropriately placed new emphasis, at both primary and secondary levels, on rigorous programmes in English, mathematics and the sciences. All pupils must have competence in these core disciplines for both working life and full participation in society.

It is also reasonable to allow schools more latitude in modes of delivery – the essential element is competence achieved. (See Anecdote 6)

Anecdote 6: Why study algebra?
Visiting a number of schools of good quality in various regions of the country, an observer posed to lower and mid secondary school pupils a favoured question: why study algebra? A related question was: "what did your teacher explain was the everyday use to which you will put physics if you become a football player or a musician?

The most common responses were:
- a blank stare
- “I don’t know"
- because it's on the curriculum
- the teacher has not explained it

All these versions of the response gave the visitor pause. The question formulating in his mind became: "are schools teaching not so much to the test as rigidly to a curriculum that does not ask why? Or feels no need to explain its purpose? If so, that is a problem"

it occurred as well that this question may go a long way to explaining why learning in Grimsby did not encompass a grasp of the reasons for the decline of the local fishery and of the profoundly negative consequences of that decline for the regional economy and well-being.

The UNESCO seminal document on "Education for the 2st Century" sets out the four pillars of education: Learning to Know, Learning to be, Learning to Do, Learning to Live together. None is more significant than the other. All four are required of a rich learning environment. Learning to Be implies the personal and social development that helps to define a whole person. If in England the meaning of the educational process becomes centred merely on Learning to Know for purposes of satisfying a national curriculum, then both Learning to be and Learning to Live Together will be diminished as a consequence.

Questions, then, about why students are studying or are not studying certain dimensions are not arcane or unimportant. Whether curriculum is centralised or not, whether it is regionally or nationally determined, it must encourage students to be able to problem-solve; and to relate teaching and learning to their ability to navigate their world - no matter what career or what work they decide to pursue.

Changes proposed to ICT are also warranted, with appropriate emphasis on practical skills in the use of technology, rather than a mere focus on related sociological aspects.

Recommendation 16

Persevere with recently introduced changes to the national curriculum; and carry out early implementation of Wolf recommendation 9: that all students pursue a course leading to a “good” GSCE in both English and maths.

There is concern about the significant lapse of time that the GSCE system renders possible – even probable – between the completion of a GSCE and entry into the workforce or into a subsequent level of education that might reinforce competencies acquired. It is conceivable that a pupil could complete a maths GSCE at age 15 or 16; and then not utilise these skills until much later. Therefore, while “good GSCEs” may be acquired, it is possible that they are not strengthened through use and reinforcement.

The likelihood of this slippage relates directly to the traditional English pattern of secondary study, with concentration on a limited number of subjects for attainment of GSCEs, while leaving aside other key disciplines. Slippage in skills levels may eventuate in insufficient competence in a core subject (while also inflating school achievement statistics) despite completion of good GSCEs.

Recommendation 17

DfE and English secondary schools should give consideration to revising the timing of offer of core subjects, such that more subjects are taken simultaneously but less intensively. Acquired abilities are less likely to be reduced or relinquished if reinforced regularly.

Dichotomisation of secondary education between a purely academic pathway and that offered to apparently lower aspirants has not been helpful. Provision of experiential learning opportunities in secondary school encourages consideration of the vocational option for higher academic performers; and may validate a vocational choice for others. Both of these possibilities open the door to improved provision of careers guidance.

Recommendation 18

DfE, working with employers and community organisations, should make a concerted effort to improve and enhance experiential learning opportunities.

4.3.5 Careers advice/career counselling

The OECD has correctly identified career guidance as key to assist education systems and labour markets to attain their objectives (OECD Education Policy Analysis, 2003, p.40). Careers' advice is not simply about deciding in the short term whether to take particular qualifications. Because it involves many kinds of career management skills, guidance counselling has been integrated into curricula in some OECD countries – and not only in upper secondary stages. In others, including in England through Learndirect, there have been attempts as a matter of public policy to provide career guidance in adulthood.

The difference between simple advice and comprehensive careers guidance – which is preferred – is that the latter helps people to plan and make decisions about work and learning. It provides more than mere information about the labour market. (See anecdote 7)

Anecdote 7: Teaching the OFSTED lesson

A complex web of structures and practices impedes focus on high quality vocational training. Schools channelling students and "teaching the OFSTED lesson" are widely reported practices that can hamper this track.

Schools may channel pupils without them becoming fully aware of it by limiting options KS4 pupils can select to only those subjects that are valued in league tables. They may still be offered some choice but this may be more restricted. BTEC courses, for example, which have a vocational character and are largely assessed by coursework and portfolio, have limited value in league tables and may therefore no longer be offered by schools.

Additionally, if OFSTED is viewed as "all-powerful", and if their criteria change frequently, diversity, experimentation and innovation in teaching – including the marrying of vocational and academic excellence – may be impeded. "Teaching the OFSTED lesson" implies emulation of OFSTED successful schools in which many teachers feel that everything is prescribed. The awarding bodies may exacerbate this: publication of detailed syllabi, and post-exam analysis of marking schemes combined with school texts written by examiners that specifically cover material in a format considered sympathetic to how it is assessed, creates an environment where pupils and teachers may "buy into" the assessment game. And to the extent that academic assessment is the main game, vocational education is not sufficiently valued.

An alternative approach – one that values equally academic and vocational considerations – that is frequently referenced is to offer rigorous maths and sciences that are applied with respect to particular occupations, and are therefore functional.

In countries like England, in which there appears to be serious mismatching between acquired skills and their deployment at work, career guidance matters more. It also may function to support important policy objectives to promote lifelong learning and to encourage learners to enhance essential skills. Finally, employability is improved when learners are enabled to develop the planning skills that can assist in an understanding of career management.

All this requires a shift from decision-making only, to include career management. In England, both these functions should become central to public policy: schools should be made more accountable for the advice that they give on immediate decisions about study and work; and postsecondary guidance should be widely available – and founded on solid research and data.

Our recommendations on careers advice/guidance for England are in line with international perspectives expressed through the OECD.

Recommendation 19
England should ensure that it possesses high quality, specialised training programs for guidance practitioners.

Recommendation 20
Schools and practitioners should be provided with timely and relevant data that can inform advice, so that advice is founded on evidence, and much less on opinion and bias. This means clarifying through statutory and non-statutory means the expectations of schools for links with employers and providing sound and accurate guidance.

Recommendation 21
National coherence in careers advice in English schools should be supported by regular fora at which researchers and practitioners share information, evidence and approaches.

Recommendation 22
Specialised careers guidance organisations should be in place in England. Their interaction with secondary schools must involve very close collaboration with teachers and school leadership, especially those providing advice within the school.

Recommendation 23
Consider making work experience mandatory for all study programmes at ages 16-19. Alternatively – or in addition - the introduction in England of traineeships will be valuable – especially for potentially disaffected male students.

4.3.6 Character Education

The current focus on character education will be beneficial to the extent that it eschews ideological pre-suppositions about “moral frameworks” or behaviour; and avoids confusion with issues of curriculum and qualifications. In other words, it will be helpful only if it does not distract. No debate should occur between “character” development and the imperative of rigour and high quality of qualifications. They should not be dichotomous.

Any emphasis on “character development” should concentrate more on the attributes that prepare well-rounded young people for success in life than on the term “character”’ itself, which is a term that is best left undefined.

Many OECD countries have recently been attentive to non-cognitive attributes: resilience, confidence, self-esteem, civic responsibility. These are also skills that are valued by employers. In England, where there is propensity to measure outcomes and compare across schools, a focus on these qualitative characteristics may be helpful. Most beneficial in England will be: building the evidence base for development of these qualities; recognising and rewarding effective practice in their development; and sharing across the country of promising practices.

Recommendation 24
England should proceed with a focus on “character” education, preferably carrying a different name - or in any case not defining “character”. The thrust of the programme should be development of qualities which are supportive in all circumstances of life, especially resilience and self-regard.

4.3.7 Establishing networks: the need for a middle tier

We have earlier referred to the curious combination of decentralisation and centralisation, and to the fragmentation of delivery that characterises the English system. (One key informant asserts that there exist 27 sub-types of school in England) .As one result, and compared with many other OECD countries, England has more limited natural networks

that can prompt improvement in school-based education. This limitation is an important reason for which we consider that English strengths occur despite – rather than because of – systems and structures that are currently in place.

Sustainable improvement is infrequent in a context of incoherence.

In England the multiplicity of types of educational institution may render networking more difficult. In contrast to countries – as in North America and elsewhere - in which regional education authorities play a key role by grouping schools geographically and managerially (school boards or equivalent), England must create partnerships from a kind of tabula rasa. While there are several successful examples of these partnerships – such as “maths hubs”, Research Ed., the London Schools Excellence Fund, NCTL, teaching schools and schools alliances - much more will need to be done to foster sharing of promising practices. Also, it appears that the creation of regional schools commissions will have little effect while commissioners are mainly concerned with performance and accountability of individual schools, rather than improvement of their region as a whole.

An observation on the differing character of academy chains serves to illustrate the potential importance of a regional arrangement. Those chains and trusts that arose in a particular community or city appear more likely to possess “moral intent” or “moral purpose”. Embedded within their mission, this moral purpose may commit them to serve community interest by reaching out and assisting troubled schools or disadvantaged pupils even when (through individual school accountability provisions) such a commitment may imperil their OFSTED or other rating. Such small chains appear more likely to accommodate the particular characteristics of any struggling school with which they become associated, understanding that “one size does not fit all”; that even within a small radius, contexts within which inner city schools operate may be markedly diverse. Their approach is less likely to be domineering and clinical – and thus make a real contribution to improving the local system.

All this does not imply that such moral intent is bound to be absent in larger and cross-regional academy chains. But it might imply that this attribute may depend more on the character of its leadership than need be the case in a regional chain imbued with an original community outlook. And leaders change.

An advantage of establishing a regional authority is the likelihood that it will be more sensitive to the need for adjustment of learning goals to fit particular contexts. We have observed, especially in areas that struggle economically, that there appears to be no positive local narrative; and that this vacuum is associated with lower educational aspiration. When students in deprived areas have no exposure to local history, geography and economics, they tend to assume that the state of their community was fated – or worse, that is was the fault of their parents and grandparents. There often follows a grudging acceptance of their lot as a form of inevitability. Teachers must struggle massively and against the odds to reverse that psychology. On the other hand, if

schools had the luxury to offer a solid understanding of context, aspiration of students is likely to rise. And this will be more probable if local educational interveners are powerfully in place.

Other advantages of rebalancing authority in education through a middle tier:

- Allocation of additional funding when necessary in challenging contexts (on the basis of more detailed local knowledge)
- Establishing shared regional goals and targets
- Setting in place instruments for collaborative school improvements processes irrespective of membership in any particular academy chain
- Creating regional and collective instruments of accountability for regional outcomes, irrespective of chain adherence

It might be worth considering vesting some of this regional authority in shire counties, with special arrangements for a few metropolises. Such a model would carry the benefit of deep historical roots and identification and perhaps take advantage of existing infrastructure.

Recommendation 25

Just as it needs to rebalance accountability frameworks, DfE should rebalance channels of authority in education:

- To create a middle layer or tier of authority, policy, funding and accountability, remediating the current public and sector perception that it is the central state that must remedy even the most local and relatively minor issues
- To establish regional, measurable goals
- To take account of regional realities in curriculum and programmes

Recommendation 26
DfE should design a clarified remit for a regional body that includes responsibilities for grouping regionally in networks for the purpose of school improvement; for mobilising knowledge based on evidence; for sharing of promising practices in various subjects at primary and secondary levels; for developing forms of collective and regional accountabilities. At FE college level, there should be a similar body, designed collaboratively between those ministries responsible for 14-19 education and training.

Recommendation 27
DfE should support continued expansion of school alliances.

Recommendation 28
DfE should support continued development of the mastery approach in mathematics and of maths hubs. It should also encourage the cultivation of similar hubs for science and technology education.

4.4 Early childhood education and development

In England there is general recognition that pre-primary education and development is key to development of well-rounded adults. As established by Mustard, Heckman and others, key non-cognitive skills that are crucial for character development and consequent success in work and in life are developed in the early years: persistence to task; organisation/planning skills; self-belief; resilience.

Together with full implementation of Wolf's recommendations on vocational education and strengthening commitment to core subjects for all students, England's constructive attitude towards ECED is currently a feature that holds out much promise for its educational future.

The remarkable consensus that priority must be given to ECED sweeps across all sectors, from employers' organisations to above-average public investment in pre-primary, to the extension of augmented funding for needy children (full pupil premium) to

include those at pre-primary level. The entitlement of all children from age 3 to free additional hours of childcare, if extended beyond 15 hours weekly, would improve outcomes for disadvantaged children.

Sound early years policy must include early learning goals; and these are satisfactorily set out in England to encompass personal development, communication skills, physical education, literacy and introduction to mathematics.

There are two pathways to success in ECED: the home environment and day-care and early school provision. Whether ECED is offered through schools, children's centres or at home is an indifferent factor and a fruitless and counter-productive debate. What counts is high quality and diversity of activities that are "fit for purpose". In both tracks England should seek improvement.

4.4.1 The home environment

International research and results from OECD standardised testing has established that parenting has at least as much influence on life chances of children as income and social class. In particular, the home environment has a strong impact on school readiness by age 5. In countries like England, characterised by educational inequity, this fact is of profound importance: according to the Social Mobility and Child Poverty Commission, two-thirds of free school meals children (FSM) are not school ready at age five. The Commission has also concluded that 4 in 10 children are missing out on good parenting.

Many key informants, commenting on the low educational achievement levels of working class whites – even from functional families –identify an expectation of failure which is not present in higher aspiring non-white families. This cultural impediment, in part determined by the mother's education, continues to have strong effects in the aftermath of de-industrialisation.

Although the impact of the home environment is critical, especially for adult literacy, it is difficult to influence directly through public policy.

The Social Mobility Commission has recommended, in order to close the gap in school readiness: a higher proportion of poor children should receive funded childcare places ("two year old offer"); a universal credit supporting eligible families with childcare costs; and the early years pupil premium extended to all disadvantaged 3 and 4 year olds immediately. The extensions of maternity leave to nine months, together with job retention of one year, are also clear positive factors.

While all these measures will help, parenting skills still require improvement. The Commission has recommended a national campaign to enable more excellence in parenting. Its laudable goal is that 85% of children be school ready by 2020 and 100% by 2025. If these objectives are attained, England's educational outcomes will be vastly improved, in both absolute and comparative terms.

Recommendation 29
An English national parenting campaign should set measurable goals for parental reading to children under age five, which has been demonstrated internationally to be a key element in later educational success. This factor is shown to be as significant as SES in favouring literacy among secondary level students and among adults. The campaign should inform citizens of the current proportion of parents who read regularly to their young children; and establish targets in percentage terms for improvements over clear timescales, for example five and ten year periods.

4.4.2 Day-care and early school provision

Good public policy and investments in institutional settings are more straightforward than in the home environment.

A key issue is the tension between quality and quantity with respect to investments of public funds in this domain. We argue that quality is more important. When a strong basis for high quality ECED is established, public support for further investment will accelerate over time. When, conversely, extension of lower quality services outstrips enhancement of value, entitlements are created; and strained resources render it difficult then to revert to an agenda of excellence.

The rapid extension of children's centres may be an example of this tension. It has been argued that, when confined to several hundred centres in deprived neighbourhoods, they were popular and successful, including, as they did, access to health care provision. As they expanded to 3,500, clarity of purpose may have diminished. Rather than expanded numbers, focus should be on quality.

In its report to Parliament in January, 2015, the DfE notes that recruitment to the Early Years Teacher training programme elicited low demand, such that only 41% of allocated places were filled. This appears to have been related to raised entry requirements. At the same time, Early Years Educator criteria have set minimum content requirements for level 3 early years qualification. DfE is correct to hold the line on qualifications, even if registration in the short term fails to meet expectations. The key issue is training of providers rather than quantity of places. Before expanding the offer and making it susceptible to cuts, there should be enhancement of quality and standards. "Fit for purpose" in ECED relates directly to adequate training and remuneration – which in England has been very low for non-university providers, whose job previously was perhaps considered appropriate mainly for low achievers.

Recommendation 30
DfE must maintain its emphasis on rigorous requirements for entry, skills testing and for qualifications from early years training programmes. An important goal in training should be the presence of at least one university qualified provider in each classroom.

5.0 Evidence for policy deliberation

5.1 Introduction

The DfE has recognised that sustained improvement in educational results hinges on the existence and use of a strong evidence base that will facilitate future policy deliberation.

The evidence base for development of policy in England needs strengthening, even though some organisations do good work. There is also weak capacity to translate research into knowledge mobilisation and hence have an impact on policy. More policy stability is needed in English education and training. Sustainability will improve if policy is less driven by ideology and more by evidence.

In the OECD “Education Policy Outlook: making reforms happen” (released at the London World Education Forum, January 2015), a key point is made about “avoiding political misdirection of initiatives… rather than build on the foundations laid in a previous administration, the temptation is always to scrap existing initiatives and start afresh. One means of mitigating the obvious negative impact of mismatched political and educational change cycles is to unhitch innovations from association with particular government programmes. The more that government is only one partner among several, the less vulnerable programmes are to being wound up after administrations or personalities change” (p.150). In Canada (province of British Columbia), this is referred to as the creation of “third spaces” in an attempt to “step out of politically charged environments towards professional dialogue”.

With respect to school improvement programmes, “lack of alignment to the wider policy agenda can be the result of an unstable political context, with changes in government or key persons or inconsistent political messages, funding decisions or shifting agendas. School and staff can become cynical if one reform follows another without giving schools the time to implement one change before the next one is announced. Changes in policy on the central level can also be perceived as fragmented and disconnected even though these changes make sense from the perspective of the central government. A long-term perspective and commitment is necessary when implementing reforms” (OECD Education Policy Outlook, 2015)

With these OECD admonitions firmly in mind, how strong in England is the foundation for the policy deliberation that leads to progress?

5.2 Positives

i. English schools are "data literate"

Testament to a powerful system of external review through the school inspectorate, schools in this country understand the value and use of data. Indeed and very unusually, many secondary schools have full-time staff dedicated to data management. Emphasis on accountability gives rise to data sets revolving around individual schools performance

Data literacy enables English schools to utilise this mode of evidence in considering current practice and avenues for future improvement

ii. Rich pupil data base

England's national pupil data base allows researchers to follow every student from primary school to school leaving (unique student identifier), and eventually into higher education. The data are sorted by many factors, including gender, SES, race, ethnicity, and religion. This scheme is an important attribute for evidence-based policy deliberation.

However, the data base could be much richer:

- The national pupil data base is not yet linked with the National Insurance Number. To do so would ensure an enormously powerful analytic base on key issues of education-workplace interface

- it could be argued that the data sets have been used largely retrospectively, in an auditing function, rather than prospectively, as a management function in relation to future performance

- by not yet linking the pupils data base with the equally rich NHS electronic health records, England is missing out on a massively improved means of understanding many relationships between educational and health outcomes, an understanding that would enhance joined-up policy and potentially improved outcomes

iii. Census data on school personnel

England's detailed census data on school personnel, including teachers and teaching assistants, facilitates insight and analysis of the profession.

Since teaching quality and pupil attributes exert the two most significant effect sizes affecting educational outcomes, England possesses rich data on the two most important parameters in considering policy.

Unfortunately, however, census data on school personnel are not linked to the pupil data base. Doing so would yield rich information on the impact of teachers in various school contexts (socio-economic, regional, ethnic etc.).

Recommendation 31
England should, as soon as possible, link the national student data base with the NINO and census data on school personnel and with the NHS electronic health records.

iv. Randomised controlled trials in English education research

Among educators and education researchers there appears to be a growing interest in basing new policy on an appreciation of causality, rather than mere opinion.

This perspective is encapsulated in the emergence of grassroots research networks for teaching practitioners and the recent emphasis on randomised controlled trials (RCTs) in English education. Most current studies being conducted by the Education Endowment Foundation utilise RCTs, from which 17 reports had been produced by the close of 2014.

v. Research capacity at DfE

Although three former Department for Education research centres are no longer extant, DfE analysts are competent and undertake significant work.

A question remains about how systematic may the link be between their analysis and the elaboration of policy.

vi. The EEF mobilises knowledge for schools

The Education Endowment Foundation is mobilising information and knowledge that may be utilised in pedagogical and administrative practice in schools. It focuses on schools as units of change; contributes to the culture of evidence-based education; and emphasizes a “no compliance culture”, by which education directions should be determined by evidence on what works, and not mainly conditioned by ministerial directive. It posits that the need is for informed professionals, not compliant ones. Currently, EEF has over 4,000 schools and 630, 000 pupils engaged in its studies.

“Disciplined innovation” is the EEF term for determining which configurations and structures of schools would be good at pulling information and improving results. This view is consonant with the OECD counsel that “developing professional communities at school level is a prerequisite for successful school improvement programmes to achieve internal agency, collective capacity, culture for improvement. School improvement is contingent on a sense of ownership by teachers of the programme” (p.166).

Recommendation 32
England should continue to support research efforts and the mobilisation of knowledge – including through well-conceived RCTs.

5.3 Troubling trends

i. Inconsistency of policy and policy deliberation

As noted by the OECD, consistency and a long-term commitment and perspective are keys to policy deliberation and implementation.

England's recent history is not characterised by that attribute. Educational policy in this country is centralised, a tendency that gives rise to numerous complaints about a culture of compliance, reflecting what some key informants describe as "diktat" that would not benefit students. In their eyes, there exists a perverse effect of accountability of individual schools on the accountability of the system as a whole. In this regard, we note from OECD's study of education policy (London Forum 2015) that "school autonomy alone is insufficient to improve schools…the literature on school improvement programmes is clear on the need to get teachers on board with the content of school improvement programmes. Policy makers need to build consensus on the aims of education reform and actively engage stakeholders, especially teachers, in formulating policy responses" (p.166)

In addition to its centralisation, education policy deliberation in England is empiricist – trying out different models and practices and observing what works. Empiricism has been a traditional philosophic centrepiece in Britain and a cultural characteristic. It drove innovation, imagination and creativity early in the industrial revolution. When accompanied, as it then was, by a powerful system of apprenticeship, it allowed Britain to pioneer and lead the industrial revolution and constituted the basis for expanded empire. Former apprentices became captains of industry who enriched themselves and their country.

Perpetuated into modern times by government, educational empiricism has been contributing to inconsistency of policy, as one thing and then another are tried. In combination with centralisation and occasional micro-management at political level, this is a telling impediment to a firm evidence base for policy. Government proceeding by trial and error - with both positive and negative results – has led to an unstable system, which is felt as such by frustrated individuals on the ground. As one of many examples of this over past decades, we note particularly the conversion of polytechnics into universities, a process that undercut the country's capacity for producing graduates with high and mid-level technical skills.

As Andreas Schleicher, OECD Director for education and skills, observed at the London World Education Forum: a small minority of education reforms are actually tested for effectiveness post-implementation. Implementation may require 10 to 15 years during which “it’s crucial that reforms are given the time to work and their impact is analysed”. Put another way by the OECD Education Policy Outlook (2015): “It may be important to ensure that the learning leadership provided by government is not through highly politicised, trumpeted schemes, but rather through sustained, less high visibility changes over time.”

ii. Few moderating influences on over-politicisation of educational policy

In the wake of the London World Education Forum (January 2015) many observers criticised “top-down”interventionist approaches in England, based on “whims” of successive ministers. A number of proposals were advanced to remediate this tendency.

It is the case that there are in England few moderating influences, brakes, structured feedback mechanisms, and social partnerships that might reduce the impact of short-term empiricism of central decision-makers. Compared with other OECD countries, England is at a disadvantage in this respect.

For example, much of the economic success of Germanic countries relates to partnerships between civil society and government, especially in vocational education and training (VET) that have led to vibrant economies and good career prospects.

iii. Little structured advice to government

Related to the dearth of mediating influences is the paucity of permanent frameworks to advise government on goals and policies – although exceptions like the Social Mobility and Child Poverty Commission or the UK Commission for Employment and Skills are salutary.

Existing advisory bodies are generally small, ad-hoc, and composed of a few unrepresentative individuals who cannot ensure “buy-in”. Effective policy depends upon engaging all stakeholders, as well as building teachers’ capacity and being designed around students and learning.

This does not necessarily imply that there be an independent body to decide curriculum content or to set long-term policy, separate from the political level; or that England requires an independent education standards authority. Rather, there should be a balance between legitimate political responsibility and accountability and the deep engagement of stakeholders. This engagement must be continuous, structured, and representative of partners in civil society. A good example of working towards educational coherence comes from Finland, where “ideas of innovative learning can be incorporated into the knowledge base that guides ongoing curriculum reform” by structured consultation. (OECD Education Policy Outlook, 2015)

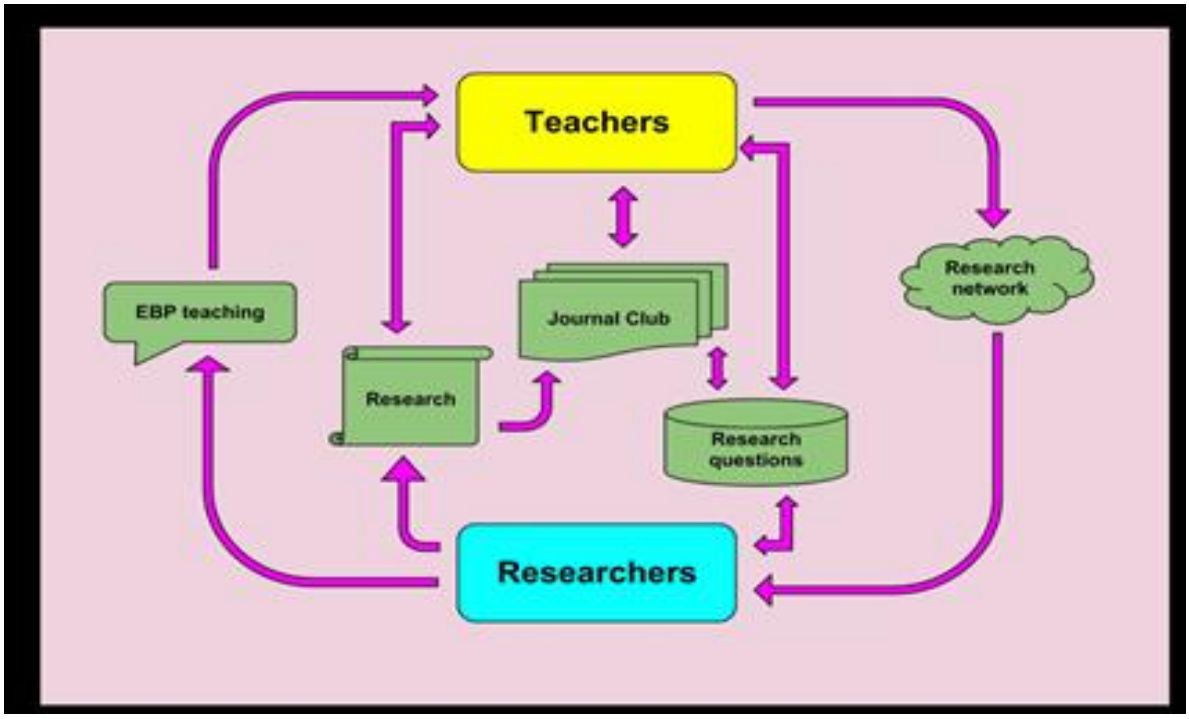
If England wishes to prepare young people for the world of work, such frameworks for consultation must engage industry deeply, in addition to teacher organisations, research groups, and bodies representing educational institutions.

iv. Insufficient triangulation of researchers, educators and policy makers

While DfE capacity and government resources for research and analysis are quite limited, educational research proceeds within England's fine universities. However, much of that research is perceived to be curiosity-driven, esoteric and somewhat theoretical. For this lacuna academics should not shoulder the blame. They have not been engaged by concerted efforts at linking them up with those who need their research: educators and education policy makers. It has been insufficient to attempt to fund applied research on what works through usual channels like the Economic s and Science Research Council (ESRC).

There is no sustained and systematic triangulation apparent in England today between policy makers, academic researchers and educational institutions. Yet, data development, research and analysis in education should be driven by policy exigency. Data should be gathered not for its own sake but because we need particular information to make enlightened and sustainable decisions on directions in education.

The emergence of RCTs in English educational research circles is but a prominent example of the need to move to an evidence-based culture in educational practice. The paradigm below, as developed by Dr Ben Goldacre, presents a useful way of understanding the rich complexity and engagement that is offered when a culture of evidence exists. This paradigm does not depend upon the acceptance of RCTs, or even solely of quantitative methods as driving forces behind educational practice. But it does required concerted effort through inter-school collaboration, CPD for teachers, and the supportive action of a College of Teaching.



Source: Dr Ben Goldacre

Recommendation 33

DfE and BIS should develop sustained partnerships with academics through funded research programmes. These programmes must be well publicised and understood within academic circles. They should set out clearly the priority areas for which policy deliberation requires further information and evidence. Prerequisites for the right to apply for these funds should be demonstration by the academic applicant:

a) That results of the research could make a substantive difference in educational policy or practice

b) That the academic researcher is in partnership with a government agency, community organisation or other intervener in order to ensure the take-up of results of the research

Evidence-informed practice requires training of practitioners in education (as in health care and many other professions) in basic understanding of methods and analysis. Currently, there appears to be little access in initial teacher training to research methods and critical interpretation of their results. Since education – no more than medicine- is matter of “common sense” or anecdotal experience:

Recommendation 34

All teachers in training should be offered an introduction to quantitative research methods and their application to educational research and practice.

v. Goal-setting and monitoring performance

DfE establishes a plethora of goals for individual schools through its accountability frameworks. This is in keeping with its emphasis on the individual school as the unit of change. It also sets many process and management objectives for itself.

In stark contrast is the rarity of measurable goals for the system as a whole. Declaration of “goals” in aspirational terms is inconsequential. Example: “we want English schools to be world class”; or “we want to be world leaders”.

Meaningful targets are stated in numbers. For example: What proportion of young children should be read to regularly? What should be the absolute average scores of English 15 year olds in PISA testing? How many level 3/4/5 apprenticeships should we have? Etc.

Each target should specify clear timescales, usually over a five or ten year period.

Collective targets and goals

We have observed how the reliance on accountability of individual schools has failed and will continue to fail to lift the system to improved performance. This observation applies equally to colleges of further education, UTCs and Higher Education. In none of these arenas are there clear incentives for collaboration. But there are disincentives. For example, there is little or no credit attached to a university that allocates scarce resources to develop a fruitful supportive relationship with other educational institutions within its region: academies, studio schools, academy chains, free schools, FE colleges, UTCs. Similarly, universities that reach out to such potential partners by offering different pathways or improved access to disadvantaged groups are likely to be penalised through assessment, rankings and their consequences. This phenomenon is analogous to the sacrifice made by successful schools and head teachers who reach out to teachers and pupils from primary schools in deprived areas. It can only be when the moral intent of local leaders overcomes the entirely rational disinclination induced by current accountability levers that they will engage in the kinds of collaboration that benefits their communities.

England needs urgently to rebalance its current accountability frameworks by countervailing measures – without necessarily disturbing the largely successful technical processes of OFTSTED and associated mechanisms. The countervailing initiatives must encompass forms of collective accountability at all educational levels, from primary school through HE. These measures are more likely to be successful if they stress regional commitments and collaboration, since these will emphasize the shared interest and responsibility of all educational institutions to serve their immediate communities and local economies.

Recommendation 35

Rebalance the accountability framework by

- Placing more emphasis on collective accountability of various sectors within the education system
- Establishing measurable national and regional goals for the system as a whole – as opposed to further stress on accountability of individual schools and small chains
- By means of joined up educational policy, a similar paradigm should be applied to HE and the FE sector

Partnering between government and civil society in policy deliberation

The stipulation of targets offers superb opportunities for creating the kinds of partnerships between civil society and educational policy makers that are currently so underdeveloped in England in comparison with other countries. When goals are jointly elaborated by policy makers and partners in civil society, they can become embedded in the public consciousness. Citizens (even the increasing numbers with no children in school) feel that they have a tangible and direct interest, that education and training is everybody's responsibility, not just that of government. This feeling, for example is what distinguishes the Germanic attitude of employer responsibility for VET from the English more aloof relationship.

England urgently needs to establish frameworks for continuous, structured and representative advice from civil society, such that:

- Educational progress is seen as the joint responsibility of the state and civil society
- Government can benefit from the full range of information, analysis and experience that partners can bring forward
- More consistency and stability of educational policy will occur
- From both business and educational institutions and associations can be more actively engaged and supportive in improving pathways and outcomes

However, government must retain – and must not delegate to any commission or external body – responsibility for educational policy and standards

For each stage of the learning cycle we could envisage in England a **sustained** and **structured** partnership between the relevant government department(s) and key interveners in that sector. Key interveners in these advisory groups might include: educators, researchers, unions, employer groups among others. Participants would be representative, not chosen for their personal attributes. The relevant groups would assist in several ways:

- Assisting policy makers in setting priorities among the many competing needs at any particular stage of learning.
- Using their knowledge of a particular stage of learning, they would assist government in determining quantitative targets to be publicly announced and for which there would be a joint sense of accountability. These targets would be for the system, not for individual educational institutions.
- Participating in the monitoring of results and in their communication to publics.

The objectives of this framework are:

- Sharing of responsibility for educational success beyond governments.

- Utilising the knowledge and commitment of those “on the ground”, closest to the questions at issue.
- Establishing sustainable policy directions such that priorities do not tend to shift massively with changes of government or personnel.
- Diminishing of bureaucratic intervention.

In addition to learner stage-specific advisory groups, England would benefit from a permanent council to advise government more generally on priorities in educational policy direction and the associated investment of public and private resources. Such a council on learning would again be representative of key social partners, rather than be composed by individuals selected by government for their private attributes.

It is important to note that the specific priorities and goals selected as a consequence such structured frameworks and partnerships are far less significant than the manner in which these are decided. If these partnerships are not present, many policy options, apparently rational and logical, will fail because of resistance and lack of “buy-in”.

Both the general council and the groups advising on particular phases of learning would be expected to support system coherence and the use of evidence systematically to inform policy deliberation. They would provide the moderating influences, brakes, structured feedback mechanisms and social partnerships that England requires in order to create optimal conditions for future success.

Recommendation 36
England should create and maintain a Council for Learning, composed of representatives from government departments and from civil society, drawn from leading organisations in regions, business, unions, educational bodies and other interveners. The purpose of the Council is to advise government on priorities; to assist it in setting national measurable goals in education and training; and to support it in monitoring outcomes over time. The body is advisory only. It has no regulatory function; and must not engender any rigid or conforming rules that are bureaucratic or which slow decision-making and action.

Recommendation 37
England should create standing advisory bodies for each phase of learning. The purpose of each advisory group – composed of interveners and experts in the field - is to assist government in identifying major issues and priorities for that phase of learning; to assist in the proposal of goals for that phase to the Council on Learning; and to lend its expertise in monitoring results over time. These groups would be advisory only and would neither have regulatory function nor impede action or decisions by policy makers.

Conclusions and destinations

English education has much to commend it.

Foremost among its positive attributes is the remarkable spirit and commitment to improvement that is liberally found among educational leaders, government and civil society. Simply put, there are superb people with exceptional qualities in every region of the country.

In classrooms in schools, colleges and universities across England, there is a myriad of outstanding teachers who are the equal of any we have observed globally, and it is quite true that it is from the quality of individual teachers that England's education system can emerge as world class. This is perhaps because many exemplify the drive, creativity, innovativeness and imagination that have historically resided at the heart of British success.

How much more effective will these educators and leaders become if supported by instruments, structures and systems that allow them to scale up, to build on their local successes. By all means remain true to fundamentally British individualism. But – if we allow ourselves some stereotyping - let us introduce a little of Swiss or Germanic organisation that will lift the system and its outcomes as a whole.

Against admirable British qualities, we have in this paper outlined an array of systemic issues that require redress if English education is to realise the full potential that individual qualities of educators and leaders would promise. We have summarised these issues by introducing their counterpoint in the form of four imperatives for the future of education in this country.

The first two involve a rebalancing of present instruments:

- To introduce means of distributing accountability more evenly, such that collective, sectoral and regional responsibilities support the existing powerful triad of methods to ensure individual institutional accountability. One example, as reflected in the recommendations, is to proceed with the establishing of a College for Teaching, by which the profession will collectively take responsibility for a rigorous means of recognition of high standards of training and practice.

- To introduce a means of distributing authority more evenly between the central government and regions, such that levers and instruments will be created that will allow local success to become replicable and scaleable in similar contexts

It is these two related forms of rebalancing that will achieve the goal of assigning attributes to their proper position. In a system that fosters continuous educational improvement, we would be more likely to find innovation, experimentation, risk-taking, empiricism and entrepreneurialism at local level - supported at national level by consistency, stability and a long-term perspective.

Unbalanced accountabilities between the individual and the collective, together with less than desirable distribution of authority, have combined to impede educational progress in England. This is the reason for the strong perception “on the ground” that excellence occurs despite, rather than because of the structures in place.

We hear often that can Britain “muddles through” anyway; or that these characteristics are deeply embedded – like dependence on the state to solve problems even at local level – in British educational culture. Perhaps. But “culture” does not emerge from a vacuum. Its genesis lies in long-term practice – and can therefore be altered over time by changes in practice. Rebalancing authority and redistributing the locus for accountability will help to achieve that cultural shift.

The third imperative demands a certain acceptance of calculated but necessary risk. If government acts to establish frameworks for continuous, structured and representative advice from civil society, there will always exist the possibility- even the likelihood – of criticism from its non-governmental partners. Indeed, some of those partners may in the past have been perceived as being at the root of some of the failures that have occurred.

Yet, not to involve partners deeply in deliberation on policy and practice is to decrease markedly the likelihood of uptake, of ownership, of active and enthusiastic participation. A supreme irony would be to imply: “we want you to be autonomous, self-assessing and self-motivated but we will refuse to listen systematically to means of achieving these goals”. In the experience of other OECD countries, the key lies in a clear understanding of the function of a partnership in education between government and civil society:

- Government will not relinquish its ultimate responsibilities for policy to independent commissions or other bodies
- Partners are free to criticise but must understand that government is under no obligation to act on its advice, no matter how pronounced their views
- Advice and partnership must be continuous and structured. The process must not be allowed to fall at the first hurdle/disagreement. There will be others.

The fourth imperative demands development of seamless pathways between schools, colleges and universities – the creation of a learning architecture. This architecture must be seen in contradistinction to current capture of young people in rigid structures and impermeable pathways that sap their sense of possibility, and therefore the aspirations of many. It is again not enough to refer to culture: “it was ever thus”. There does exist means of inducing the flexibility and mobility that young people require in a learning society and economy.

Concluding remarks

If this brief from an international observer proves to be of some utility, it will be because it may stand as a reminder, a reference guide to policy makers when considering future options. It is hoped that they will ask the kinds of questions prompted by this paper: do our options move the system in the direction of more balance? Are we taking full advantage of partnerships with those outside government? Are we enhancing for young people the sense of possibility, broadening their alternatives, and making it easier for them to pursue learning life long? Are we supporting the reproducibility, scalability and sustainability of successful models and practices?

Are we ensuring that the learning of our young people – their preparation for work and life - lies at the heart of everything that we do?

There exists in this country a tremendous will to succeed in education. Educators, families and communities may well wish to remember the exhortation of the great war time leader (completely out of context): “give us the tools and we will finish the job”.

Recommendations

Recommendations are summarised in this section.

The number attached to each recommendation represents its placement in the body of this document.

Section 3: Points of convergent thinking

1. England should fully utilise the leverage afforded by convergence to give policy priority to those many areas of rough agreement, rather than tackle issues that are not now amenable to sustained collective engagement ("buy-in").

Section 4: Vocational education and training/secondary school

2. Measurable goals for the provision of careers advice should be set for individual schools, school chains, and regions. These should involve demonstration of competence, and of knowledgeable and complete information-provision by guidance counsellors. The recommendation from the Wolf review regarding lower-attaining students must be applied with vigour: accountability frameworks must intervene to ensure that schools do not divert these pupils into dead-end "qualifications"

3. England should pursue its current emphasis on rigour in core disciplines for all pre-16 students, not just those who appear to prefer an academic track; and young people should therefore "not be tracked in irreversible ways" (Wolf p. 11). When this is achieved, it will become safer for students to opt for VET than is now the case.

4. Immediate implementation of Wolf recommendation 26: introduction of a performance indicator "which focuses on the whole distribution of performance within a school, including those and the top and bottom ends of the distribution".

5. If the concept of a company to lead improvement of careers advice moves forward, it should be accompanied by real effort to integrate its work with the school environment and staff.

6. Apprenticeships should be driven primarily by employers. Industry would select mode of provision. Standards and curriculum used should reflect needs of their industry and sector. But they must also provide those transferable skills that will permit graduates to operate effectively in the wider economy.

7. Developers of apprenticeships should strive to assemble the winning conditions of current oversubscribed apprenticeship programmes. Employer organisations should maintain an accurate information base reflecting successful experience and practice.

8. Although attempts may in the past have failed to create a system of assessment of prior learning and its recognition on a national basis, England should strive to achieve

this goal. Not only is such a system consistent with new emphasis on experiential learning in secondary school; it will also lead to better labour market matching between skills and employers' needs.

9. England should proceed with the establishment of a series of prestigious technical institutions in all regions of the country, with elite vocational provision at apprenticeship levels 4/5. The high quality of these institutions will produce a cascading effect of interest and attainment in technical pursuits.

10. Through consistent and joined-up educational policy, develop seamless pathways between secondary schools, FE and HE, creating a learning architecture

11. Through consistently coherent educational policies, England should support through accountability provisions those HE institutions that collaborate intensively with FE colleges, UTCs, and secondary schools of all types.

12. England should persevere with the UTC model. It should also ensure that secondary school career advisors are fully informed and informative to students regarding the attributes of this option.

13. England should establish a College of Teaching that will unite practitioners in common purpose and will emphasize collective responsibility for standards and quality.

14. In any national framework established for purposes of setting goals and monitoring progress in education, employer organisations – including in the public sector - should take a role.

15. Efforts should be made by DfE, working with industry, to identify and attract persons who would strengthen teaching of STEM subjects in secondary school.

16. Persevere with recently introduced changes to the national curriculum; and carry out early implementation of Wolf recommendation 9: that all students pursue a course leading to a "good" GSCE in both English and maths.

17. DfE and English secondary schools should give consideration to revising the timing of offer of core subjects, such that more subjects are taken simultaneously but less intensively. Acquired abilities are less likely to be reduced or relinquished if reinforced regularly.

18. DfE, working with employers and community organisations, should make a concerted effort to improve and enhance experiential learning opportunities.

19. England should ensure that it possesses high quality, specialised training programs for guidance practitioners.

20. Schools and practitioners should be provided with timely and relevant data that can inform advice, so that advice is founded on evidence, and much less on opinion and

bias. This means clarifying through statutory and non-statutory means the expectations of schools for links with employers and providing sound and accurate guidance.

21. National coherence in careers advice in English schools should be supported by regular fora at which researchers and practitioners share information, evidence and approaches.

22. Specialised careers guidance organisations should be in place in England. Their interaction with secondary schools must involve very close collaboration with teachers and school leadership, especially those providing advice within the school.

23. Consider making work experience mandatory for all study programmes at ages 16-19. Alternatively - or in addition - the introduction in England of traineeships will be valuable – especially for potentially disaffected male students.

24. England should proceed with a focus on “character” education, preferably carrying a different name - or in any case not defining “character”. The thrust of the programme should be development of qualities which are supportive in all circumstances of life, especially resilience and self-regard.

25. Just as it needs to rebalance accountability frameworks, DfE should rebalance channels of authority in education:
- To create a middle layer or tier of authority, policy, funding and accountability, remediating the current public and sector perception that it is the central state that must remedy even the most local and relatively minor issues
- To establish regional, measurable goals
- To take account of regional realities in curriculum and programmes

26. DfE should design a clarified remit for a regional body that includes responsibilities for grouping regionally in networks for the purpose of school improvement; for mobilising regional knowledge based on evidence; and for regional sharing of promising practices in various subjects at primary and secondary levels; for developing forms of collective and regional accountabilities. At FE college level, there should be a similar body, designed collaboratively between those ministries responsible for 14-19 education and training.

27. DfE should support continued expansion of school alliances.

28. DfE should support continued development of the mastery approach in mathematics and of maths hubs. It should also encourage the cultivation of similar hubs for science and technology education.

Early childhood education and development

29. An English national parenting campaign should set measurable goals for parental reading to children under age five, which has been demonstrated internationally to be a key element in later educational success. This factor is shown to be as significant as SES

in favouring literacy among secondary level students and among adults. The campaign should inform citizens of the current proportion of parents who read regularly to their young children; and establish targets in percentage terms for improvements over clear timescales, for example five and ten year periods.

30. DfE must maintain its emphasis on rigorous requirements for entry, skills testing and for qualifications from early years training programmes. An important goal in training should be the presence of at least one university qualified provider in each classroom.

Section 5: Evidence for policy deliberation

31. England should, as soon as possible, link the national student data base with the NINO and census data on school personnel and with NHS electronic health records.

32. England should continue to support research efforts and the mobilisation of knowledge – including through well-conceived RCTs.

33. DfE and BIS should develop sustained partnerships with academics through funded research programmes. These programmes must be well publicised and understood within academic circles. They should set out clearly the priority areas for which policy deliberation requires further information and evidence. Prerequisites for the right to apply for these funds should be demonstration by the academic applicant:
a) That results of the research could make a substantive difference in educational policy or practice
b) That the academic researcher is in partnership with a government agency, community organisation or other intervener in order to ensure the take-up of results of the research

34. All teachers in training should be offered an introduction to quantitative research methods.

35. Rebalance the accountability framework by:
- Placing more emphasis on collective accountability of various sectors within the education system
- Establishing measurable national and regional goals for the system as a whole – as opposed to further stress on accountability of individual schools and small chains
By means of joined up educational policy, a similar paradigm should be applied to HE and the FE sector

36. England should create and maintain a Council for Learning, composed of representatives from government departments and from civil society, drawn from leading organisations in regions, business, unions, educational bodies and other interveners. The purpose of the Council is to advise government on priorities; to assist it in setting national measurable goals in education and training; and to support it in monitoring outcomes over time.

The body is advisory only. It has no regulatory function; and must not engender any rigid or conforming rules that are bureaucratic or which slow decision-making and action.

37. England should create standing advisory bodies for each phase of learning. The purpose of each advisory group – composed of interveners and experts in the field - is to assist government in identifying major issues and priorities for that phase of learning; to assist in the proposal of goals for that phase to the Council on Learning; and to lend its expertise in monitoring results over time.

These groups would be advisory only and would neither have regulatory function nor impede action or descisions by policy makers.

Appendix – Three implicit assumptions that must be challenged

As in many other countries and systems, people working daily within the setup may not be fully aware of the assumptions (therefore implicit) within which they are functioning, and which may restrain deliberation of potentially better policy options.

In England, we identify three premises that appear to drive approaches to policy and practice:

1) Continuing to emphasize that very stringent individual school and FE accountability will lift system performance – despite that there exists no real evidence that it has

2) Enhancing skills by determined efforts will drive an improving knowledge economy without an explicitly and strongly supportive central, regional and local strategy for economic growth – despite the large skills mismatch caused by massive current underutilisation of skills, combined with low demand by employers for mid and high level skills

3) If there are shortcomings in English education systems and institutions, it is up to central government to fix and remediate – despite the fact that successful education is like a three legged school of government, community and family. One leg will not support the stool.

About Dr Paul Cappon, MD, Ph.D.

Dr. Paul Cappon has been a national educational leader in Canada for the past several decades. From 2004 through 2012 he was President and CEO of the Canadian Council on Learning, with pan-Canadian responsibility for all phases of lifelong learning, from early childhood to higher education and adult learning. He had previously served for eight years as Director General and CEO of the Council of Ministers of Education, Canada (CMEC), which is the interprovincial coordinating body for all aspects of formal education in Canada.

Paul Cappon holds doctoral degrees in both Medicine (McMaster University, Ontario) and Sociology (University of Paris), and has integrated these and other disciplines throughout Paris), and has integrated these and other disciplines throughout his career. As a physician, he has specialised in Community Medicine and taught both social sciences and medicine at McGill University. As a sociologist, he taught at the University of British Columbia. As a university administrator, he served from 1991-1996 as Academic Vice-President at Laurentian University in Ontario.

As a leader in the fields of education, of medicine and of social sciences, Dr. Cappon has authored numerous publications and has been active in national and international community and public service organisations. In 1988, he was president of the world congress of International Physicians for the Prevention of Nuclear war. He is chair of the Policy Action Group on Learning for the Commission on Globalisation.

Paul Cappon has been active internationally as Canadian representative for education at a number of bodies, including UNESCO, Commonwealth, APEC and OECD. Separately, he has been active in carrying out projects for the OECD, and has been a Fellow at the Robert Borsch Foundation in Germany. In 2014-15, he has been a Policy Fellow at the Department for Education in England, with a remit to examine the preparedness of English young people for life and work.