

How should our schools respond to the demands of the twenty first century labour market? Eight perspectives.

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Occasional Taskforce Research Paper 4: February 2015

About the Education and Employers Taskforce

www.educationandemployers.org

The Education and Employers Taskforce is a UK charity created in 2009 to ensure that every state school and college has an effective partnership with employers to support young people. As well as undertaking research into the impact and delivery of employer engagement in education, the Taskforce manages innovative programmes to enable schools and colleges to connect efficiently and effectively with employers including www.inspiringthefuture.org. The Taskforce works in close partnership with the leading national bodies representing education leaders, teaching staff and employers/employees.

Research into employer engagement in education

The Education and Employers Taskforce provides a free online resource bringing together high quality materials investigating the impact and delivery of employer engagement in education. Resources include a library of key articles and reports, many of which have been summarised to pick out key findings, papers and videos from the Taskforce research conferences and free London seminar series as well as Taskforce publications and a regular e-bulletin of relevant research announcements. The library has attracted usage from across the world including researchers at Harvard, the OECD, Japan, Australia and Denmark: www.educationandemployers.org/research

About the editors

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Introduction: schools and employers in the twenty-first century

Anthony Mann and Prue Huddleston

The current generation of young Britons leaving education have never gone into the labour market with more years of schooling and higher levels of qualifications yet they are losing out in the struggle for employment. The ratio of youth to adult unemployment has crept upwards over the last generation with earnings squeezed compared to older workers. It is a paradox of modern society – witnessed across the OECD countries - and raises fundamental questions about whether young people are being prepared effectively for twenty-first century employment.

During 2014, we had the opportunity to conduct interviews with eight of the best placed people in this country, and globally, to comment on the changing nature of employer demand and what implications it has for contemporary schooling. Interviews were undertaken on a semi-structured basis – the question framework can be found at annex 1 – with transcripts written up by the editors and then signed off by the interviewee. We are hugely grateful to eight people who collectively possess significant insight into two key questions:

- Why is the labour market becoming increasingly hostile to young people?
- How can schools adapt to the changes being experienced and best prepare young people to succeed in today's labour market?

These are questions which first emerged from a November 2013 meeting chaired by Sir Charlie Mayfield and Sir Mike Rake which brought together senior leaders from the worlds of education and employment to reflect on the chastening findings of the OECD's 2013 Survey of Adult Skills. At that meeting – see annex 2 - it became clear that there is very significant demand from schools to have a clearer steer on what they can best do to prepare young people to succeed through their transitions into work. For employers whose operational success depends crucially on access to a continuing flow of skills, this is a question of core significance. Over 2014, in collaboration with the University of Warwick and the Association of School and College Leaders, the Education and Employer Taskforce has looked into this question in detail, beginning with a filmed discussion involving Chris Husbands (Institute of Education), Hugh Lauder (University of Bath), Andreas Schleicher (OECD) and Bob Schwartz (Harvard University) chaired by Prue Huddleston at the January 2014 Taskforce research conference.¹ This publication builds on that discussion and contributes to a systematic review of the changing relationship between schooling and employment.

Included among the interviewees featured in this publication are:

- the head of education and skills at the world's most influential international body working on these questions (**Andreas Schleicher** of the OECD), the head of the world's leading academic institute focused on education (**Professor Chris Husbands** of the UCL Institute of Education) and the chair of Education, Training and Skills at the University of Oxford (**Professor Ewart Keep**);
- leaders of workplace membership bodies representing some 200,000 owners of small businesses (**David Pollard** of the Federation of Small Businesses), 135,000 professionals working in human resources (**Peter Cheese** of the Chartered Institute of Personnel and

¹ The panel discussion is available online at: <http://www.educationandemployers.org/research/third-education-and-employers-taskforce-research-conference-exploring-school-to-work-transitions-in-international-perspectives/>

Development) and of six million individual employees (**Kay Carberry** of the Trades Union Congress);

- the editors of the two most important international academic journals addressing these questions: **Professor Lorna Unwin** of the *Journal of Vocational Education and Training*, and **Professor Hugh Lauder** of the *Journal of Education and Work*, each of whom is a prolific and globally influential scholar exploring the relationships between education, skills and work.

What the interviews tell us?

1. Long term structural change in the labour market has been to the disadvantage of young people with those with lower levels of skills at particular risk.

The interviewees are of one mind: the UK labour market has changed fundamentally over the last generation and it has been to the disadvantage of young people. As David Pollard succinctly puts it:

many employers have simply lost the habit of employing young people straight from education.

A number of key drivers are identified by interviewees in seeking to explain why changes in the labour market have worked against the interests of young people:

- the forces of globalisation have accelerated, exporting huge numbers of the types of entry-level, semi-skilled jobs which employers commonly used to turn to teenagers to fill (Hugh Lauder);
- competition from older people has become considerably fiercer as retirement is more easily delayed in an economy based more on services and knowledge than on the physical labour which sustained traditional manufacturing (Peter Cheese; David Pollard);
- recruitment practices have changed moving from the world of informal ties to a world of recruitment agencies, internships, short-term contracts, part-time working demanding higher levels of skill from the novice worker (Kay Carberry; Peter Cheese);
- deregulation in the labour market has made employers less willing to invest in formal, substantive training which has become a less common skills stepping stone within the transition from education into work (Peter Cheese; Ewart Keep);
- and, perhaps, most importantly technology is fundamentally changing the way we work with real consequences for the job market and the skills it demands whether at the bank counter (as Kay Carberry describes) or at the supermarket check-out (as Hugh Lauder points out).

To Peter Cheese:

Employers have become accustomed to take the easy option – seeking the ‘oven ready’ candidate who might be expected to stay for a rather short period of time, rather than investing in a young person and training them up.

For young people, the consequences of this labour market change has been profound and it is now clear that poor transitions out of education have lasting implications for individuals’ life chances. As Hugh Lauder and Ewart Keep stress, the long term effects of early experiences of unemployment or underemployment are highly significant in relation to both economic and psychological outcomes.

A specific risk for someone entering the UK labour market now is that over the last generation it has ‘hollowed out’. What that means is that demand for work has been greatest at the higher

and lower ends of the skills spectrum. For young people entering low skill jobs (which are unusually common in the UK) soon after leaving education, there are much greater risks that they will become trapped in poorly paid work, as the traditional rungs in the career ladder provided by medium skill jobs disappear and employers become less enthusiastic about providing training. As Lorna Unwin highlights, it is in entry into careers outside of the professions where labour market change has been most profound over the last generation.

- 2. As the labour market has become more complex, it has become more difficult for young people to make informed investment decisions about the education and training (human capital) they accumulate, contributing to significant mismatch between skills demanded by the labour market and those possessed by young people, increasing the importance of high quality careers provision.**

A consistently repeated concern through the interviews relates to the mismatch between the supply of the skills young people bring with them as they come out of education and what the labour market actually demands. The over-supply of graduates is a common refrain. Too few graduates can expect to find graduate employment, taking instead jobs previously filled by young people with middle level skills (typically A levels or Scottish Highers). This phenomenon of 'bumping out' starkly illustrates the risks to both graduates and their peers, without university education, seeking to find a place in the modern working world.

For young people, the labour market has become more complex, transitions have become more fractured and very many employers have begun demanding new skills and capabilities. As Chris Husbands argues, the labour market is more complex and complicated for young people at every single level, making it significantly more difficult for schools to predict what it will offer, and demand, in the future. For young people making choices about how they engage with the education and training choices ahead of them, this new complexity and unpredictability generates significant problems. To a number of interviewees, the idea of 'investment choice' in thinking about education provides a helpful way of considering the consequences of labour market change.

One of the weakest aspects of the British economy is the extent of the mismatch found between the qualifications and skills possessed by workers and those demanded by employers. It is a fundamental weakness of the labour market in general and of the youth labour market in particular. If we think of young people making investment decisions as they decide on the qualifications, training and experience (collectively, the human capital) they plan to accumulate prior to leaving education to optimise their ultimate earnings in the labour market, we need to recognise the importance of access to good information about what that labour market actually wants and demands in order for properly informed decision making to take place. In the absence of good labour market signalling, it can be no surprise that poor investment decisions will be made and the widely evidenced skills mismatches in the British economy become a predictable result. (Hugh Lauder)

It a perspective echoed by Peter Cheese:

The labour market is becoming more complex and the decisions young people make while in education are becoming ever more important. We need to think of those decisions as investment decisions, allowing an individual to build a profile which will ultimately optimise chances of good education to work transitions.

To Peter Cheese and Chris Husbands, the risks of poor decision making about investment (or career) choices in education are becoming both greater and more common:

With student fees as high as they are now, and the labour market changing so quickly as a result of technological innovation, the penalty to a young person in getting their higher education choice wrong is both higher than ever, but also more likely to happen. (Peter Cheese)

In skills areas characterised by such changes, it becomes very easy to get caught out. Jobs can simply disappear overnight. (Chris Husbands)

It is unsurprising then that most of the interviewees highlight the growing importance of careers information, advice and guidance as increasing labour market complexity makes decision making more difficult for young people.

The fact that the modern working world is so characterised by change makes careers education all the more important. (David Pollard)

It is absolutely apparent that if we want to do anything to make transitions into an increasingly complex working world easier for young people, it is essential that high quality careers information advice and guidance is available. Without that, we might as well give up, it is that important. ...We need to help young people become far more discerning consumers of the provision available to them. (Ewart Keep)

3. Dynamic, deregulated labour markets call for new skills from young people both in terms of what is needed to successfully navigate ever more fractured transitions from education to sustained employment, and with regard to skills (notably, in the effective application of knowledge) associated with the most successful transitions.

Ewart Keep, Kay Carberry and Chris Husbands are among the interviewees who identify an urgent need for more structured pathways from education into work, particularly in terms of vocational education and training. In areas of greatest disadvantage, in particular, the need to mitigate the risks of poor transitions is high.

In areas of highest youth unemployment, there is a real need to think about how more coherent pathways can be put in place for young people as they move through education and training and into the labour market. Funded co-ordinators, for example, could work between schools, colleges and employers making transitions easier to navigate. (Chris Husbands)

Young people entering the labour market in 2015 must expect, interviewees commonly argued, more fractured transitions than their peers a generation earlier.

The well-structured pathway (such as graduate entry schemes leading to long term employment) is becoming rarer and rarer – we are in the era of portfolio careers, zero hour contracts, part-time and self-employment, employment growth in small, rather than large employers. These are all trends which demand adeptness and confidence from young people if they are to navigate successfully through choppy waters into rewarding and secure careers. (Peter Cheese)

For schools, this demands both an honesty about the challenges involved in gaining sustained employment and a new focus on providing young people with the knowledge and confidence to navigate the jobs market – how to present a good CV, to interview well, to understand how

recruitment actually works – and to bring with them the psychological capacity to navigate the churn of early labour market navigation.

We are witnessing jobs being transformed at a dizzying pace, making it more important than ever that young people are able to show personal adaptability and resilience. (Kay Carberry)

And when they get into sustained employment, increasing numbers of jobs with prospects of ongoing progression demand different skills than was the case in the past. Described by Andreas Schleicher as:

the ability to be personally effective in applying knowledge to solve new problems

the approach embodies aspects of work discipline and long standing conceptions of ‘employability skills’ (as highlighted by David Pollard and Chris Husbands). To many interviewees, it has become essential that young people can demonstrate that they not only possess knowledge demanded by employers, but that they can *apply* that knowledge in different and unfamiliar circumstances.

The world economy no longer pays you for what you know, but for what you can do with what you know. (Chris Husbands citing Andreas Schleicher)

4. Schools can, and should, respond to changes in the labour market by extending and adapting what, and how, they teach, ultimately narrowing the distance between the classroom and the workplace.

To Chris Husbands, the challenge for educationalists is as much (perhaps, more) about how they teach, as what they teach.

We ...know that application of knowledge... is ever more important too. The modern labour market demands new recruits who are able to take initiative and make things happen; young people with grit and resiliency. For schools, it is a question of pedagogy and use of community based resources. In pedagogic terms, there are tried and tested means of teaching young people to apply emerging knowledge in unfamiliar contexts. Enterprise styles of learning are considerably more effective if they engage real people from real workplaces in their delivery, as is commonly seen in University Technical Colleges. The community offers an excellent location for such contexts.

Andreas Schleicher would agree:

Schools must stop trying to predict the future, but they should try to prepare young people for the change they will experience. Schools need to stop preparing young people for the jobs that existed a generation ago and start preparing them for jobs which do not yet exist. For example, entrepreneurship education is much more important now than it was a generation ago because it teaches those skills and personal attributes which oil the modern labour market. It should not be taught separately but written into every subject. The art of being enterprising – solution-focused attitudes, spotting opportunities, connecting dots and dealing with uncertainties – has, for example, a very clear and strong relationship with effective maths teaching. The great goal of such teaching is not in ensuring deep conceptual understanding as an end in itself, important as that is, but in fostering the ability of young people to apply the knowledge they have accumulated in new situations. In this way, we give them the confidence and intellectual resource to embrace and deal with the myriad unfamiliar problems they will encounter through life. All subjects should be taught to

develop the mindset of young people enabling them to identify and seize future opportunities. This is why the OECD has placed such an importance on creative problem solving, alongside literacy and numeracy, as a key indicator of national educational performance. (Andreas Schleicher)

Pressed by the interviewers on the question of maths education, Ewart Keep, Chris Husbands, Hugh Lauder and Andreas Schleicher all argued for the importance of teaching in ways where emerging knowledge is routinely applied to different, particularly real-world circumstances, embracing technologies which have transformed personal numeracy and teaching to enhance problem-solving skills and confidence in abilities to tackle mathematical questions. A common critique was that maths commonly taught in England to the age of 16 was that it was predominantly and disproportionately designed to serve the needs of a small proportion of young people expecting to go on to study the subject at a higher level and/or enter highly numerate careers. As David Pollard argues, many employers feel that provision lacks relevance to their needs:

A particular concern among members of the Federation of Small Businesses is how poor basic numeracy skills actually are. Someone can leave education with a good grade in GCSE maths but fail to understand how to apply this in the workplace. This suggests that young people leave education without enough teaching and practice in applying core maths to business practices, and this is a real problem for both employers and young people.

This example is a snapshot of a loss of confidence among employers in educational qualifications. Businesses are struggling to understand what skills and knowledge they should expect from them. As a consequence many members set their own numeracy tests as part of their recruitment processes: they test mental arithmetic, ratios, percentages and statistics, amongst other areas required for their business.

The interviewees suggest means by which schools can respond to the changing labour market by improving understanding of how it operates and what it has to offer, its opportunities and its pitfalls; equipping young people better to navigate the churning work landscape they can expect; and to better develop their ability to be personally effective in applying knowledge in unfamiliar situations as is demanded by contemporary jobs with greatest prospects.

In all of this, there is a clear view that schools need employers to work with them if they are to give young people the best chances of succeeding through their school to work transitions. Employers who complain that young people lack work readiness have it in their hands to help address the problem, through providing work experience and careers provision (Kay Carberry, Ewart Keep, Lorna Unwin, Chris Husbands), in helping them to get to grips with modern recruitment practices (Peter Cheese), demonstrating the relevance of learning and providing real-world learning examples (Chris Husbands) and ultimately in closing the growing gap between classroom and workplace. This is a perspective which Andreas Schleicher summarises:

I do think we need to be honest with young people about how challenging the youth employment market has become. We need to be honest with them that education to work transitions are now commonly complex and prolonged. Governments and educators need to recognise the consequence of these changes and take action to make transitions easier. As well as thinking anew about the curriculum and the preparation for modern working life that schooling provides, greater attention needs to be focused on improving signalling of the different pathways available to young people. This is why exposure to the workplace is so

important within education. It not only provides excellent opportunities for experiential learning across the curriculum, but also underpins effective careers education and the decision-making of young people. Work experience and other forms of employer engagement demonstrate to young people the links between what they do in the classroom and how those skills ultimately will be used in the labour market. For young people, and for their teachers, that is a great motivator.

Finally, in reflecting on labour market change, the importance of education has become more important than ever.

The schooling that we give young people represents the single most important opportunity they will have to develop the knowledge, skills and attributes which will shape their progression through working life, and we do them a terrible disservice if we keep them in the dark about how well their competency development measures up to the demands of the labour market. (Andreas Schleicher)

The interviews tell a story of a labour market undergoing considerable change over the last generation, changing the character of work in ways which make young people less attractive propositions to employers. In a youth labour market characterised by growing complexity, increasingly fractured transitions and employers demanding new skills, there is a call on schools to respond, for example, through improved careers education advice information and guidance, by the introduction of better preparation for recruitment and embracing approaches which enhance personal resiliency and the ability to apply knowledge effectively in unfamiliar situations. In all of this, there is a very simple proposition: that for young people to go into the labour market with better prospects, the distance between the classroom and the workplace needs to be narrowed.

Kay Carberry

When it comes to the prospects of young people in the labour market, it's important to recognise that we are in the midst of a significant structural change. Over the last 30 years, we have seen a change in the way that young people, especially from lower socio-economic groups, transition from education into employment. For the first three-quarters of the twentieth-century, it was commonplace for young people to follow their parents into employment straight from school. That is no longer the case. Young people's employment prospects have been hit very hard - and that is an important reason in why we are seeing so many young people stay in education so much longer now than they did a couple of generations ago.

To really understand what is happening in terms of youth employment and unemployment, we need to segment the population. We have an ever growing number of graduates who are struggling to find graduate employment and taking work which traditionally went to peers with lower levels of qualifications. There are high proportions of young people, moreover, who actively seek work while at college. It is the young people who leave education with the fewest qualifications, however, who are finding it most difficult to secure jobs with good prospects of training and progression, a trend which has been accelerated with public sector employment reducing and the growth of jobs in the private sector which are low quality, insecure and with poor prospects.

It is quite clear that our education system fails to provide a vocational pathway comparable in quality and reputation to the higher education route. Across the board, we see some real problems in the quality, poor pay and limited prospects of apprenticeships where competition from older workers for opportunities is fierce. It has to be recognised that the Government is addressing the issue, but it remains to be seen how successful it will be.

We do need to put better pathways in place in general for non-graduates, but in doing so, we need to be careful that we do not end up tracking young people from poor backgrounds into poor quality jobs. The OECD's Skills Survey shows clearly that if someone starts out in a low skill job, then it is very likely that they will stay in such employment over the long term. Of the big economies, the UK's labour market is the least regulated in Europe and this has resulted in a significant expansion of poor quality, insecure employment. Far too many low skill jobs have no proper training and poor progression and we cannot ignore that – we cannot simply improve the school to work transitions of young people by focusing on their education, we need to take a hard look at the quality of jobs that young people commonly end up doing. The UK Commission's National Employer Skills Survey shows that one-third of employers provide no training whatsoever.

That said, too many employers complain that the teenage non-graduates they employ are not sufficiently job ready. It is striking that what appears to be most commonly missing in terms of young people's profiles, alongside basic English and maths, is a lack of social and communication skills. Social skills should be taught in education as well as resilience and adaptability. These are core to what employers look for in new recruits and should be core to what schools do. We need to be careful though to recognise, however, the heavy demands that already exist on teachers where worsening conditions of employment have had a demoralising effect. We need to see stronger and more coherent careers provision in schools.

And we do need to stay focused on the fact that while very many young people, regardless of their qualification levels are likely to suffer from fractured transitions from education to sustained, good quality work with related requirements for personal resiliency, some will struggle more than others. Young people with the highest levels of qualifications will, by and large, do OK. Today's unemployed

graduates may have to bide their time, but there is a good likelihood that they will find rewarding employment as the economy picks up. At the other end of the spectrum, we know transitions will be a struggle for very many young people with few qualifications and this has long been the case. It is those who do worst out of the education system who will struggle most in the labour market.

Young people who stay in education to the ages of 17, 18 and 19, also face significant challenges though. For young people who are not on a higher education pathway, the risks are high of poor understanding, even bewilderment, as they encounter the labour market with great dangers of becoming trapped in dead-end employment which they don't know how to get out of. For these new strugglers, there is a very clear issue of poor guidance and weak opportunities in schooling to develop social or employability skills.

As well as equipping them with the skills that employers clearly value, we need to be more honest with young people about the nature of the labour market and make sure that they leave education confident in their understanding of how to get a job. There is plentiful anecdotal evidence that it has become comparatively rare now for employers to give helpful feedback to unsuccessful candidates for jobs, contributing to demoralisation and continued confusion. This makes it all the more important that they leave education with a good understanding of how recruitment works.

In all of this, clearly employers have important roles to play in supporting schools in helping young people to become more work ready by the time they leave education. It is not just the responsibility of schools, but of employers too – and many do step up and offer high quality work experience placements. More need to respond. Employers must also take training more seriously. They cannot simply expect young recruits to come to them completely job ready. Successful enterprises are learning enterprises and that is something which the union movement, through UnionLearn especially, champions and celebrates, making differences in workplaces up and down the country.

We have to recognise ultimately that jobs are being transformed and that has implications for the youth labour market. Financial Services is a good example. High street banks used to recruit huge numbers of school and college leavers into relatively good employment with potential, but due to technological change, deregulation and growing competition, there has been a massive drop in such entry-level recruitment. We are witnessing jobs being transformed at a dizzying pace, making it more important than ever that young people are able to show personal adaptability and resilience. Secondly, while we shouldn't overstate the increasing complexity of today's labour market, clearly it has become more difficult for young people to make informed investment decisions while in education, especially when, as is widely agreed, the availability of careers guidance is not at the level it needs to be. There are some simple messages that we need to get over to young people: that they should strive to become as qualified as possible, to choose options and pathways with their eyes open and seek guidance at regular intervals. Finally, while it does have some real problems, much of the labour market is healthy and we should be positive about that.

Kay Carberry is Assistant General Secretary of the Trades Union Congress (www.tuc.org.uk) representing 54 trade unions with a combined membership of 6.2 million working people.

Peter Cheese

Youth unemployment has got worse in the recession, but it was increasing already before 2008. It is not just a cyclical issue, but a structural one – changes in the labour market and employer behaviour are working against young people and they need to be recognised.

The British labour market is adopting a new shape. In demand for skills, increasingly it looks like an hourglass – with demand greatest for high skill, high pay jobs on the one hand, and low skill, low pay jobs on the other. It is the mid skill level jobs which have been disappearing and this is especially important for young people because they have historically started in lower skilled work and then worked their way up the skills ladder. Rungs in the ladder are disappearing and this causes problems for employers too as it impedes the flow of talent into high skill areas like engineering or IT, where we see employers struggling to fill vacancies. The extent to which the UK economy demands low skills is very striking: the OECD tells us that 22% of UK jobs are low skilled (meaning that they demand not much more than a primary school level of education) whereas in competitor countries, it is more like 5-8%. We see in our economy too widespread underemployment (affecting up to 3 million people) and very low productivity levels and that reflects the fact that there is a poor match between what the labour market, as a whole, supplies in terms of skills and what the economy now demands.

Skills mismatch is a very real phenomenon. The 50% target for young people gaining a university education was, and is, a very blunt tool for tackling a very complex task. With student fees as high as they are now, and the labour market changing so quickly as a result of technological innovation, the penalty to a young person in getting their higher education choice wrong is both higher than ever, but also more likely to happen. These changes prompt us to look afresh at what good quality vocational education, and especially work-based learning, has to offer. Through work-based training, it is much more likely that both the individual and employer will see skills and knowledge developed which have real economic value.

Our history of unemployment, underemployment, large scale immigration combined with the liberalism of our labour market has influenced the recruitment practices of employers. We have to recognise that the flipside of a flexible labour market is reducing employer appetite for investment in labour market skills. Employers have become accustomed to taking the easy option – seeking the ‘oven ready’ candidate who might be expected to stay for a rather short period of time, rather than investing in a young person and training them up. Employers have been cutting the amount of money they invest in training in part because of this ever more commonly asked question: why invest significant resource in the training of an individual when they can be expected to leave and go and work for a rival? This reduction in training has a real consequence for young people as they go into the world of work. They can no longer rely on employers to invest to top up the knowledge and skills they developed in education. What happens in education becomes more important than ever and while we don’t, and shouldn’t, expect schools to prepare young people to be job ready for specific occupations, we do need to ensure that they leave education with as much knowledge and as many skills relevant to the labour market as possible and to be well informed about the myriad training and continuing education pathways ahead of them. In this regard, access to high quality careers advice from early ages is essential. As the transition from education into sustained work becomes more complex and fragmented, and as second chance access to high quality, funded training diminishes, the importance of formal education grows apace.

Our economy today is one which now trades overwhelmingly in knowledge and services and these are sectors with very different demands for skills than was the case when we earned our living, as a nation, out of old-style manufacturing. This change has consequences for young people. If we look at the way that the working world has changed over the last generation, we witness a growing gap between what schools have provided and what employers demand. In a knowledge and service based economy, employers increasingly recruit on the basis of personal effectiveness and by this I mean the ability of an individual to assimilate information, to communicate and work in teams effectively, to exhibit personal discipline in work. Too many young people lack insight into what employers really demand. Knowledge is clearly important, but it is what you can do with it that really makes the difference to recruiters. Too often, we see young people who are over or under confident about their abilities and immediate prospects. Such unrealistic expectations need to be addressed and urgently. Research shows that this is a growing phenomenon characteristically identified in studies of young people in the UK and overseas, known widely as Generation Y. Aspirations are frequently out of kilter with the reality of how careers actually work. Too often young people exhibit fixed ideas around the job for life they expect to get and show too little understanding of the life of stepping stone jobs which might actually get them to where they want to go. The well-structured pathway (such as graduate entry schemes leading to long term employment) is becoming rarer and rarer – we are in the era of portfolio careers, zero hour contracts, part-time and self-employment, employment growth in small, rather than large employers. These are all trends which demand adeptness and confidence from young people if they are to navigate successfully through choppy waters into rewarding and secure careers.

We need to help young people consequently to understand the world of work better and to build those key employability skills whilst still in education. At the heart of an effective preparation for today's working world is the concept of personal resiliency - it is a foundational block for success in today's labour market. How can it be developed among young people? We need to teach them, from a young age, that failure happens and how to respond to it. We need to be honest with young people about just how hard the labour market now is and start preparing them to compete successfully in a jobs environment which will present many setbacks and disappointments as well as enormous opportunities. The labour market is becoming more complex and the decisions young people make while in education are becoming ever more important. We need to think of those decisions as investment decisions, allowing an individual to build a profile which will ultimately optimise chances of good education to work transitions.

We can see the way that other changes have put young people at a disadvantage. Technological change has now made it possible for a young jobseeker to send out hundreds of CVs every day in search of employment and we hear terrible stories of despairing young people who have applied for countless jobs without any success while employers have to deal with thousands of people applying for vacancies. The bureaucratisation of recruitment catches young people out. They are very poorly advised. This is not the way that people optimise their chances of getting jobs. Most jobs are found through informal contacts, job centres and well researched targeted approaches. Informal contacts are especially important for SME recruiters who are inherently more risk averse in appointments than larger employers and lack resource for full HR operations. Through their behaviour, it is clear that very many young people just don't get how recruitment actually works and there is a real need for schools to step up and give them better advice and guidance, and for employers to be ready to work with schools through schemes like Inspiring the Future.

What can schools do to help improve the chances of young people thriving through their school to work transitions? Well, we need to acknowledge that the combination of unrealistic aspirations,

ignorance of labour market demands and opportunities and poorly developed personal resilience and work skills represent a heady mix placing young people at a structural disadvantage when they come to compete for available employment against older workers in our rapidly changing labour market. Finding more time in education to address these deficits has to be a priority. Young people must be taught how careers are built, just how long they take to get going and how important networks are to success. Every young person should leave education with a CV with some things of meaning on it and with an understanding of how they can present what they have achieved in ways that will be valued by employers. Employers too need to think again about how they interact with young people. If they don't feel that young people exhibit the skills, knowledge and qualities which jobs now demand, there is an onus on them to go into schools to tell young people (and their teachers) themselves. It is easy now to do that. Equally, if employers feel young people don't have enough work experience, well, be part of the solution and start offering it. The good news here is that very many employers have responded very positively to the CIPD's Learning to Work campaign which calls for more strategic approaches, and real action, to improve working with young people.²

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²For more information about the Learning to Work campaign:
<http://www.cipd.co.uk/publicpolicy/learning-to-work.aspx>

Chris Husbands

If we compare things now to how they were in 1970s, certainly the labour market is more complex for young people. It is more complicated at every level. Forty years ago transitions from education into work were far more straightforward for most young people. Manufacturing, for example, was still strong and there were jobs available there which demanded the physical skills of school leavers, and there were also established family networks that allowed informal recruitment.

We can see change happening in two broad areas. Demand for skills (at all levels: higher, mid-tier and lower) is changing and so too is the package of skills demanded by employers.

In the first area, over recent years we have seen big job losses in the middle skills level. In skills areas characterised by such changes, it becomes very easy for individuals to get caught out. Jobs can simply disappear overnight. The vulnerability of young people with these level of skills – A levels or equivalence – is growing too as a result of trends in the graduate market where more highly qualified peers are struggling to find jobs to match their qualification and have been taking jobs requiring lower qualifications: graduates effectively ‘bumping out’ those with mid-level skills from available work.

In the second area, in terms of what employers require at the different qualification levels, the public debate has become polarised between focuses on skills on the one hand (as more championed by BIS and the UKCES) and knowledge on the other (as seen in the positions adopted by the DfE under Michael Gove who has been heavily influenced by US educational theorist E. D. Hirsch³), whereas in fact, it is really a combination of both which are required. As Andreas Schleicher says, the world economy does not pay you for what you know, but for what you can do with what you know. Moreover, the strains are clearly showing of an education policy predicated on as many young people as possible studying to undergraduate level which ignores actual labour market demand.

The labour market is changing much more quickly than the capacity of schools to respond. It has become very difficult for schools to identify what future labour markets will look like. The expansion of telephone call centres in Doncaster and Rotherham, for example, could not have been foreseen, certainly not within the conventional education planning timeframe. Skills required in this sector are very different, of course, from those required in the former mining communities. You could picture it as a lag, with schools struggling to first understand and then catch up with workplace changes. Some lag is always inevitable and just has to be accepted, but there are things that can be done to close the gap.

It is clear that a strong basic level of English and maths – level 2 by age 19 – is necessary for all young people. It is right to expect that they achieve this. We also know that application of knowledge, as Schleicher says, is ever more important too. The labour market demands new recruits who are able to take initiative and make things happen; young people with grit and resiliency, who will stick at things, work well with different people and do not give up. For schools, it is a question of pedagogy and use of community based resources. In pedagogic terms, there are tried and tested means of teaching young people to apply emerging knowledge in unfamiliar contexts. Enterprise styles of learning are considerably more effective if they engage real people from real workplaces in their delivery, as is commonly seen in University Technical Colleges. The community offers an excellent

³ Hirsch, E. D. 1988. *Cultural literacy: what every American needs to know*. New York: Vintage Books.

location for such contexts – work experience, for example, can provide a perfect platform for young people to demonstrate learning in new environments. Too often though, work experience is poorly planned, poorly timed, un-integrated into wider teaching, not followed up. Too often, young people struggle to find work experience at SMEs and micro businesses and it is here where the greatest growth in demand for labour is found and where informal recruitment practices are most common. It is very clear too that very often, all too often, it is the social background of a young person which determines the type of work placement they are able to source. We need to democratise access to work experience placements.

We also need to recognise here the crucial importance of careers education, information, advice and guidance. Lack of independent advice is a key weakness, it needs to be addressed. Too many young people are getting information from limited and dated sources. Hugh Lauder is right to call for a more coherent careers service better integrated into education provision.

Where schools are situated in areas of very high youth unemployment, there is need for more action to support young people. Schools face real challenges and we need to see local authorities and Local Economic Partnerships recognising the need to channel support to them. Employer engagement is especially important here, ensuring those schools with least access to resource in their immediate community gain access to the work experience placements, alumni events, careers activities, classroom learning and civic engagement which does make a difference. In areas of highest youth unemployment, there is a real need to think about how more coherent pathways can be put in place for young people as they move through education and training and into the labour market. Funded co-ordinators, for example, could work between schools, colleges and employers making transitions easier to navigate. Partnerships are key in all areas, but especially those facing the greatest social challenges. Schools and colleges should collectively have responsibility for all young people within their area; it is not a school by school problem. Provision for 14-19 year olds should be seen as a coherent and comprehensive offering, not as competing offerings.

In terms of maths provision at key stage 4, we need firstly to recognise that we cannot simply view maths and numeracy as having the same relationship as we see in English language and literature. It is more complex than that. The key thing with which we do need to equip young people is the confidence that they are able to use maths. In maths teaching, we should spend less time worrying about changing the content of what is taught, and much more time in working to change the way that young people think about the maths they learn. This is why use of real-world learning materials and approaches like estimation are so important. The research literature tells us that if more young people believe that maths is important to them, we can expect attainment to rise. And especially at key stages 1 to 3, where there is greater freedom in teaching and learning, pedagogies which nurture this confidence through project work and problem solving approaches are readily available.

In all, there is a need for a greater focus on the outcomes which should be expected from schools and indicators which are really meaningful. A key area-based indicator, for example, should be the ratio of youth to adult unemployment and how that varies between areas. And geography is important. We need to see local employers, within their natural economic communities, helping to shape the education and skills outcomes demanded of schools and colleges, recognising all the time that individual employers will always have individual perspectives on education and training and it cannot be taken for granted that those employers who step forward are fully representative of their sectors. It should be for educationalists then to determine how they can best achieve those outcomes in ways which must typically demand collaboration between institutions in order to be fully effective. In all of this, we must ensure that our educational system is constantly tracking the progress of young people, identifying those at risk of falling behind, and intervening quickly and

effectively to get them back on track. It is something that the Finnish educational system does especially well and something that we, in this country, would be well advised to learn from.

Finally, when we look at the curriculum overall and how it reflects the demands of the twenty-first century labour market, there is a compelling case for a more coherent approach to provision particularly about the offer at ages 14 to 19. The UTC model is a good one here, but it is not scalable. The Skills Taskforce, for example, recommendation for 14-19 education and training (March, 2014) suggests something more systemic: 'Creating an aspirational new 'National Baccalaureate' for all school leavers which includes rigorous, stretching and labour-market responsive vocational qualifications for the 'Forgotten 50%' and skills, character building and workplace learning for all.'⁴ Such a Technical Baccalaureate would bring together the elements which we know are related with better outcomes for young people: strong vocational qualifications with good labour market relevance and purchase; core English and maths to at least level 2; workplace learning; enrichment activities that allow the development of broader skills, for example resilience; access to good quality IAG that has employer endorsement.

There is no golden bullet which will ensure all young people leave education with excellent labour market prospects, but there is silver grapeshot available – approaches which will make a difference and address the problem in its complexity.

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⁴ Skills Taskforce. 2013. *Skills Taskforce Interim Report: Talent Matters – Why England needs a new approach to skills*; Skills Taskforce. 2014. *Qualifications matter: improving the curriculum and assessment for all. The third report of the independent Skills Taskforce.*

Ewart Keep

The labour market is increasingly hostile to young people. Over the last generation, employers have become spoiled for choice – competition for employment over the last generation has been so great that employers can, and do, impose increasingly demanding barriers to entry. It has become the norm for employers to operate in ever more flexible labour markets where they feel fewer and fewer responsibilities to train new staff. They have the choice of hiring in older workers with experience, migrants and of recruiting graduates to non-graduate jobs, as we see in some call centres now, and have taken it. Schools and colleges simply cannot give young people the degree of job readiness demanded by a growing number of employers. In our era of casualization, zero hour contracts, part-time and temporary employment, those who cannot demonstrate that they are absolutely job ready to employers or, increasingly, employment agencies, will struggle to compete for available work.

We have a huge problem particularly in this country in the oversupply of graduates in our labour market. For the last generation our national skills policy has been narrowly focused around getting ever more young people into higher education. It hasn't worked to tackle systemic skills gaps – you just have to look at the unmet demand for STEM technicians by way of example. Evidence from the OECD is clear, the UK has a huge problem in over qualification. There is quite simply a massive surfeit of graduates. Unsurprisingly, we see a huge trading down going on where graduates are taking jobs which used to go to young people who left education at 18 or younger. As the Department for Business Innovation and Skills is now admitting, most new graduates cannot be expected to find the sort of graduate employment which will allow them to repay their loans in full. Very many graduates will receive no wage premium for their higher levels of qualifications. Elsewhere in the labour market, we see skilled migrants from EU countries winning the competition for jobs in the skilled trades. It is a simple international test of the quality of our vocational provision and the UK is found wanting.

Our national obsession with higher education has been at the expense of the majority of young people who do not go to university, especially for young people who struggled in school. It is degree or nothing – what is there in between? We have, quite clearly, no solid level 2 provision for young people at post 16 – and there is a terrible gap in provision at level 3. There has been no proper employer-provided training for thirty years at technician level.

And things may well get worse. It has already become difficult for young people to get on to good apprenticeships – the ones with the best training and prospects – and is very likely that it will become even more difficult in the future. As their costs to employers increase with the current apprenticeship reforms, there is a very real risk that employers will simply stop taking on young people as apprentices altogether.

Young people typically do understand how poor alternative provision 16+ is when compared to academic routes. For young people in areas of high unemployment where available jobs are often poorly paid and with poor conditions, it is understandable that they struggle to see the links between engaging enthusiastically in available vocational provision and successful adult employment. Before we lament their lack of aspiration, we need to ask ourselves what is the real incentive for young people in areas of highest unemployment?

It is absolutely apparent too that if we want to do anything to make transitions into an increasingly complex working world easier for young people, it is essential that high quality careers education information advice and guidance is available. Without that, we might as well give up, it is that

important. And we can't just rely on Destinations Data and Labour Market Information informing young people – they are both complex sets of information which need to recognise variations in local labour markets. We see the result of young people's stumbling blindly through their post-school transitions in taking the sorts of short courses lacking in any significant labour market returns which Alison Wolf attacked so strongly in her report. Very narrow vocational qualifications combined with poor information, advice and guidance is a recipe for learning by experimentation and failure. We need to help young people become far more discerning consumers of the provision available to them – they need to be able to ask key questions with confidence before making decisions about their learning and training: is it a real skill that is in real demand that is being taught? What are the long term returns to associated qualifications? What do real people (not statistical averages) actually do with the qualifications?

We need to understand the growth of barriers too in preventing access into middle class jobs. Look at law or teaching and the need for young people to access unpaid work experience has become commonplace. Access depends, of course, on financial resource and on social networks and these are not equally available to all. We see the same trends in other sectors – in the media and creative industries especially – where internships are increasingly demanded as a means to break into sustained paid employment.

Parts of the labour market are certainly becoming more demanding, but we should not overstate the changes we have seen in the world of work. There are still very many jobs in which employees will be penalised for showing creativity and initiative. Diligence and submissiveness are attitudes still valued by many employers. But clearly too, for a young person to navigate their way into more rewarding employment, they do need to be able to show personal effectiveness in new ways.

Finally, in reflecting on how the labour market has changed in recent years, it is important to recognise that employers are a heterogeneous bunch. There is an awful lot of variation in what they want of young people. There are many workplaces – and care homes would be a good example – where demand for numeracy skills is non-existent. In the UK, very many employers effectively demand that their workforce has no qualifications whatsoever. Across the OECD, the UK stands out as having very high demand for very low skilled labour. So, we should be careful in over generalising when describing what employers want.

While we should not underestimate the challenges presented by the current labour market, we should also be aware of positive developments. In England too often we are woefully ignorant of what happens elsewhere in the British Isles. In Scotland, the recent reports of the Commission for Developing Scotland's Young Workforce chaired by Ian Wood are very interesting. In Wales, we see government continuing to co-invest with employers to support skills development. International evidence is pretty unambiguous, moreover, on the sort of non-university education provision needed. The sort of approaches focused around preparation for broad career pathways as we saw in the 14-19 Diplomas responds to the changing labour market and that approach is increasingly popular internationally. Provision needs to avoid being too occupationally specific – because occupational demands can change very, very quickly.

The challenge to employers is to step up to offer more and better work experience to give young people better chances of going into the labour market with some experience of it at least. And we need to see far more employers taking on apprentices and investing in their training. And we do need to ask ourselves some hard questions about what we say to young people about the labour market and how challenging it has become, especially in areas of highest unemployment. Should we be more honest with young people about how little it sometimes has to offer? Certainly, we should

help equip them to compete for available work. We know that any work is better than youth unemployment. So, we need to see a focus on helping young people to travel through pathways into initial employment straight from school and to help them identify jobs with prospects and how to navigate their way into them. There is no reason why employers should not be advertising vacancies directly into schools and colleges and we need to think about learning approaches which help young people to be resilient in the face of adversity. In all of this, place matters and there is a need for local strategies to reward and value employers who do the right thing by making it easier for them to find talented young people.

There is only so much, however, that can be done through encouraging and enabling. We need to see a revolution in provision of genuinely high quality apprenticeship provision at level 3. Employers respond to the conditions set by government and currently that incentivises hiring older workers. If we want to see apprenticeships consistently providing real transitions from formal education to work for young people, government needs to act to remove the competition from older workers.

For schools, we need to be realistic about how much more can be expected from teachers who are recruited, trained and rewarded to focus on traditional academic learning – and this is what they do best. Looking at maths provision in schools specifically, it needs to be realised that the maths GCSE which we expect all young people to achieve is primarily designed to enable successful progression onto the A level course which is in turn driven by the demands of undergraduate maths degrees. Any steps towards use of more applied pedagogies in developing learning more relevant to today's labour market need to be cautious, small and incremental. We need to recognise that units of resource are limited and that costs in accessing resources to offer broader learning experiences need to be minimised. It is clear, however, it is a good thing for young people to see the value of knowledge in an economic setting and it is perfectly possible to teach more academic subjects in ways better linked to real-world settings. Our challenge is to connect pupils with people in the real working world who do interesting and productive things with the knowledge and skills they are developing in the classroom.

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Hugh Lauder

The youth labour market is clearly operating neither effectively nor efficiently. Too often young people are finding themselves crowded out of available work by older workers willing to work for the minimum wage in low skilled jobs. Why? It is fundamentally because employers in the UK, by and large, resist investing in the training young people need to compete against older, more experienced workers. The employer has little incentive to train if they don't expect the young person to stay with them for any length of time. Understandably, they fear that a competitor will reap the rewards of investment in skills development. This is a consequence of our liberal labour market and is seen, at its sharpest, in the widespread use of zero hour contracts. It has led to a race to the bottom. The 'good' employer who wants to invest in training for young people is placed at a structural disadvantage, with higher costs, than competitors.

We are witnessing, moreover, the impact of radical technological change on the types of employment commonly undertaken by young people: the introduction of self check-out machines in supermarkets and other retailers is a case in point. With graduate employment stalled – and now up to half of all recent employed graduates working in non-graduate jobs – we see a long term trend of young people with lower levels of qualification struggling to compete. This process – known as bumping out – is felt across the labour market and there is reason to believe that it is becoming a permanent feature of our economy.

The recession has made a bad situation worse for young people. Looking ahead, the government hopes that as the economy picks up and labour supply tightens, young people's employment levels will improve. This may happen, but it is important to recognise consistent evidence which shows that young people whose entry to the working world is marked by periods of unemployment are typically scarred (economically and psychologically) by the experience, earning less on average than peers through their working lives. More to the point, some long standing assumptions made by economists about how the labour market rewards individuals are being challenged. Economists have long argued, for example, that as an individual grows older, their human capital will naturally increase with work experience and skills development, and so their earnings will grow. Over the last decade, however, we have seen the real earnings of 90% of the British workforce flat line. The UK labour market has changed fundamentally over the last generation – it has become overwhelmingly focused on services, reshaped by technological change and globalisation trends (most notably looser immigration and off-shoring restrictions and constraints) and is now characterised by some of the weakest protections for workers across the OECD countries. While such broad change is experienced in competitor countries – and in Germany for example, like the UK, one quarter of the workforce exist on poverty wages - the British experience is extreme.

One of the weakest aspects of the British economy is the extent of the mismatch found between the qualifications and skills possessed by workers and those demanded by employers. It is a fundamental weakness of the labour market in general and of the youth labour market in particular. If we think of young people making investment decisions as they decide on the qualifications, training and experience (collectively, the human capital) they plan to accumulate prior to leaving education to optimise their ultimate earnings in the labour market, we need to recognise the importance of access to good information about what that labour market actually wants and demands in order for properly informed decision making to take place. In the absence of good labour market signalling, it can be no surprise that poor investment decisions will be made and the widely evidenced skills mismatches in the British economy become a predictable result.

Increasing numbers of young people leave education and then churn across a range of very different jobs, testing out the labour market, seeking vocational matches that generate meaningful returns. While this might sound like the market simply acting to sort people into professions through its own hidden hands, the reality is more chastening. Few people churn with a compass, a sense of emerging identity and direction which allows for iterative building of experience and skills. And the risks now of failure are very great – the cost to the individual of training after the age of 19 is very high. Young people, today, have one big shot at getting their primary human capital accumulation right. If what they accumulate isn't what employers want – and the Department for Business, Innovation and Skills estimates that young people graduating today will never earn enough to pay back more than 60% of what they borrowed on what are currently preferential grounds from the state – then the cash investment (regardless of the psychological price) required of the individual is frighteningly high.

If we look back 30 years, education to work transitions were much smoother. Young people, and especially young men, typically followed in parental footsteps and benefited from the information, advice, networks which their mothers and, more often, fathers had built up. They made it easy for young people to imagine and develop their identities as adults in all facets of life, including vocational. In the absence of such inter-generational support – a consequence of labour market liberalisation and structural economic change – young people are pretty much on their own as they embark on their working lives. No wonder they find it so difficult. What this means is that careers provision becomes more significant than ever. Through careers education now, young people search for the links between their present and their futures, the pathways and connections between school and work, youth and adulthood – with schools serving a vital purpose in helping young people to look to themselves to understand their own emerging strengths and weaknesses (to be addressed) and the steps on the myriad journeys open to them. We need to understand that as young people enter their transitions into full adulthood, that tastes of different workplaces can and should provide young people with invaluable opportunities for such personal reflection. Academic study exploring the importance of the ways that individual attitudes and dispositions are formed and serve to shape life's trajectories (cultural capital theory) provide insights of real value to teaching staff seeking to provide the best possible support to young people.

Looking at the role of schools, it is ever more important, therefore, for education to prepare the individual for life in new ways. Maths education provides a good example. If we ask, what mathematical knowledge is essential to effective citizenship – and this should be a test that is applied – then we need to think about probability. If someone does not understand probability, they are essentially illiterate in a concept at the heart of modern living: in understanding medical judgements, in deciding whether to go to university, in a myriad of areas, young people need to be able to weigh the probabilities of likely outcomes.

In so much of maths teaching, we need to acknowledge that smart phones are now ubiquitous portable computing machines – the learning challenge should be how to be to use one effectively, not to pretend that they do not exist. Maths for survival in the modern world is different from the 'academic' maths that most young people learn at school. The current curriculum – in terms of GCSE Maths – serves perhaps 5% of the total cohort who plan to study at a higher level and/or who have vocational aspirations in highly numerate professions. When we educate 95% for the needs of 5% - something is surely amiss.

In today's economy, more than ever, qualifications are not enough on their own to secure a smooth transition from education to sustained work. It is not too late to learn from the pedagogic and organisational approaches outlined in the Tomlinson report (2004). The teaching and learning

practice and spirit of institutional co-operation witnessed in provision of the short lived Diploma qualification offers a very real model of practice which can close the very long standing gaps between education and work. As in Diploma provision, we need to see schools and Further Education Colleges working together, sharing resources and expertise, balancing each other's strengths and weaknesses to provide learning environments which are both richer and more relevant to the working world than either can deliver alone.

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David Pollard

In looking at how the lives of young people have changed from the last generation, one of the things I see as most important is what could be called the death of the Saturday job. It used to be very common for young people to initially work a few hours at weekends, go on working full-time temporarily during the summer, and then when they left school, some people joined the enterprise permanently. If they didn't join the firm or entered into further education and training they could at least go in search of work elsewhere with a decent reference to their name, perhaps a useful introduction or two to other potential employers and an understanding of the workplace. In my own company, this used to happen a lot. We would recruit this way and train young people both in the workplace and through college so that they learned as they worked. It may have appeared slightly informal but it was certainly an effective means of recruitment.

That approach has become very rare now. Lots of the part-time jobs that young people used to do are no longer available to them. Employers are faced with excessive bureaucracy that makes it too difficult and/or expensive to employ teenagers. There is also growing competition from older and more experienced workers looking for part-time work, university graduates, and women returning to employment after having families. This is limiting opportunities for young people.

For smaller employers, workers with some experience may be more appealing and provide greater security. While this risk-averse approach grows in times of recession, this is not the only factor, as our member surveys also tell us that small businesses struggle to find young people who are well suited to the jobs they have to offer. Most members believe that schools are poorly preparing young people for the world of work. Due to the constant focus on university education, young people are taking higher education courses that may not lead them to the job they want. This is because the two tier education system fosters a view that in some way there is something wrong with those young people who don't get into higher education. This can be bad for businesses as both vocational education and workplace experience are highly valued by many employers and complement the skills of university graduates in the workplace. Unfortunately, many employers have simply lost the habit of employing young people straight from school.

It would be true to say that small businesses feel that the gap between what young people leave education with, and what they most value, is growing ever larger. At the heart of the gap, are employability skills. By this I don't mean technical ability, literacy or numeracy; though the quality of workplace functional skills is a concern. The skills our members have identified are the interpersonal skills needed to function well in the working environment: these include attitude and willingness to work, a desire for responsibility, teamwork and problem-solving. It is in these areas that the employability gap is becoming a real problem.

This is underpinned by the UK's transition to a knowledge economy, which has important consequences for working practices. There are now more thought processes to consider and less manual work. Teamwork in various settings such as warehouses, laboratories and offices is an ever-demanded skills set; as is being innovative in dealing with new challenges that are constantly emerging. Many workers learn these skills through work experience. This puts young people at a disadvantage because they have not had the opportunity to gain these skills, and this places greater pressure on them to do so quickly. It also pressurises businesses to employ and teach them; an exercise that should not be expected of them.

These skills therefore really do need to be embedded into mainstream learning, as do the development of personal characteristics like resilience. The ability to pick yourself up when things

don't work out is essential to modern life and schools just don't prepare people for that. Compared to a generation ago, young people today are much more likely to spend time both unemployed and working for a smaller business, perhaps even running one. Dealing with changing employment practices and adversity is central to modern life. We can and should be preparing young people more effectively to face this. Schools should work with students to identify their strengths and weaknesses, and work with them to improve their employability skills. I'm pleased that politicians across the political spectrum are supporting this important aspect of learning.

There are many routes into employment, and it is not the role of schools or other education institutions to channel people into narrow occupations through particular pathways. Put simply, we cannot predict what future jobs will look like, but we can identify trends that allow us to anticipate skills needs. These include the ever growing numbers of jobs that demand STEM (Science, Technology, Engineering and Maths) skills, ICT, as well as strong numeracy and literacy. We need to communicate these to young people so that they are better placed to navigate the complex and often choppy waters of the modern labour market. The fact that the modern working world is so characterised by change makes careers education all the more important.

As well as ideas to help young people understand the breadth of the labour market, such as through regular career talks with employers, schools need to prepare people for the fact that there is no one path to a job or through a career. There will be choices that need to be made about where to go next and the best way to get there. There may be setbacks that need to be resolved and opportunities not to be missed, and there is so much more that schools can do in helping to create a smoother transition into work. It could be as easy as having a jobs board in the school to advertise jobs to school leavers, and to use some of the school's own networks to help give pupils support in finding work. The importance of networks, that so often characterise independent schools, should be understood and people should be supported in making connections before they leave school. Networks and contacts are so important and schools should be helping pupils develop local networks so that more people have access to employers regardless of their background.

Talk of the need for interpersonal skills does not remove the need for core functional skills. A particular concern among members of the Federation of Small Businesses is how poor basic numeracy skills actually are. Someone can leave education with a good grade in GCSE maths but fail to understand how to apply this in the workplace. This suggests that young people leave education without enough teaching and practice in applying core maths to business practices, and this is a real problem for both employers and young people.

This example is a snapshot of a loss of confidence among employers in educational qualifications. Businesses are struggling to understand what skills and knowledge they should expect from them. As a consequence many members set their own numeracy tests as part of their recruitment processes: they test mental arithmetic, ratios, percentages and statistics, amongst other areas required for their business. This isn't confined to maths. The ability to speak and write coherently is important, as is an ability to use ICT. This is why the FSB has long argued that people should have a mastery of functional skills in ICT, English and maths when they leave school. This is the approach Wales has taken as a result of its qualifications review. The two new Welsh GCSE maths qualifications provide a very interesting example of how qualifications can be made more relevant to the workplace and be a part of the school qualifications framework.

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Andreas Schleicher

It is true to say that the labour market has become a lot more hostile to youth everywhere and this hostility has several dimensions. In terms of the supply of labour, for example, labour market regulation designed to protect the young has often in fact served to penalise young people and made it more difficult for them to make their first steps into the world of work. On the demand side, clearly it is not just qualifications that employers are looking for anymore. They also want experience and demand that young people possess soft skills and have the ability to apply their knowledge as well.

One of the key trends we have seen across the OECD countries over the last generation has been the growth of services as an economic sector, but it is not that *per se*, which explains this growing hostility. Rather, things have become far more difficult for the young because of the changing character of work itself as it has responded to the digital revolution that began in the 1990s. As a result of this technological change, there has been a dramatic decline in the use of routine cognitive skills at work and the concomitant increase in demand for non-routine analytical skills and for the ability to work in new, flatter work structures, often with people who are different from you. These changes present real challenges for our education systems which have historically been structured around delivering routine cognitive skills and assessing the success of individual students in demonstrating such skills. Such a highly individualistic approach to schooling and qualifications – one grade for one person – bears increasingly little resemblance to the realities of contemporary working life. Around the world historically, our schools have focused teaching ‘what you know’, not ‘what you can do’ and it is that which has become the key differentiator of personal success - and failure - in modern economies. The world economy does not now pay you for what you know, but what you can do with what you know.

The trend of increasing labour market hostility to young people will continue. Schools cannot anticipate the precise evolution of labour demand but they can, and should, adapt curricula to reflect the new realities of the labour market. In the world of work, everything is changing and the only prediction we can make with any real certainty is that change in working environments and practice will continue at a rapid pace. Consequently, what we need is lifelong, skills-oriented learning that emphasises adaptability and preparedness for change. Education systems, however, have not been responsive in this way. In the UK, for example, there is also a lack of knowledge about the world of work amongst teachers and educational pathways are directed towards university entrance so there is little incentive to think about the consequences in the changes in the way that work is undertaken.

Higher levels of qualifications, of course, do have a protective function in the labour market, but the real question is what kind of skills these qualifications develop. Maths is a prime example of a mismatch that exists between educational approaches and the working world: there is almost total misalignment between the ways maths is taught and the way it serves society. Young people need better maths skills as numeracy is a key predictor of future earnings and employment outcomes, but we also need to be sensitive to how these skills are taught and used. For example, computer programming and structured algorithms are largely overlooked by schools. The focus on trigonometry over statistics is the function of the fact that curricula are designed by experts who think in terms of disciplinary paradigms rather than the realities of modern life. In past economic life, it was possible to operate with certainty but that has changed. Now, we need to deal with questions of likelihood and of uncertainty. To keep pace, maths needs to be taught through concepts such as probability or risk management. From the perspective of the modern working world, content categories like algebra and geometry appear, and are, unnatural and archaic. Likewise

science teaching is structured through subjects around outdated boundaries between actual spheres of knowledge. The traditional approach to science subject teaching and learning simply does not reflect life experiences and if it were to, it would make the subject much more interesting and relevant for students. The work of Charles Fadel at Harvard University is very insightful in this regard.

We do need to accept that labour market transitions will henceforth be more complicated and protracted. Complexity and opacity are key problems for young people as there are a multitude of occupational profiles and it is difficult to see beyond a five to ten year horizon. Choices (field of occupation, nature of desired work, depth versus breadth of skills) are multidimensional and changeable: young people have to first position themselves in a multidimensional space and then adapt when the dimensions change. This is psychologically demanding and resilience is key. Thriving in a structurally imbalanced world is contingent on the ability to adapt to change and recover from failure and the capacity to seize new opportunities. Change affects every job category but it is hardest on the least prepared: the trick is to be constantly growing in a new field.

Schools must stop trying to predict the future, but they should try to prepare young people for the change they will experience. Schools need to stop preparing young people for the jobs that existed a generation ago and start preparing them for jobs which do not yet exist. For example, entrepreneurship education is much more important now than it was a generation ago because it teaches those skills and personal attributes which oil the modern labour market. It should not be taught separately but written into every subject. The art of being enterprising – solution-focused attitudes, spotting opportunities, connecting dots and dealing with uncertainties – has, for example, a very clear and strong relationship with effective maths teaching. The great goal of such teaching is not in ensuring deep conceptual understanding as an end in itself, important as that is, but in fostering the ability of young people to apply the knowledge they have accumulated in new situations. In this way, we give them the confidence and intellectual resource to embrace and deal with the myriad unfamiliar problems they will encounter through life. All subjects should be taught to develop the mindset of young people enabling them to identify and seize future opportunities. This is why the OECD has placed such an importance on creative problem solving, alongside literacy and numeracy, as a key indicator of national educational performance.

At present such entrepreneurship or experiential learning is seen as separate to the traditional learning experience. This needs to change and it is starting to in some places: Japan has made considerable progress in this direction and Singapore provides an excellent example of a nation which has embraced a twenty-first century pedagogy. If you were to visit a Singaporean high school today, you might well encounter educational approaches which take the operation of the school restaurant for example and weave the simple, accessible insights it provides of real world working it into every taught subject.

Resilience can be taught through encouraging young people to take risks, make mistakes and tolerate and learn from these. An educational approach which values solution strategies over recitation of correct answers in effect is teaching resiliency. It's important to value different approaches and alternative answers as self-efficacy – belief in one's ultimate ability to solve a problem - is almost as important as demonstrated capacity in successful problem solving. In maths, this is especially important. From primary education onwards, we need to be giving children the confidence to try, teaching them solution strategies and giving them the chance to apply them in the context of emerging conceptual understanding.

A common critique of such experiential or enterprise learning is that it is impossible to assess. And it is true that in terms of assessment, it is harder to judge or grade soft skills than academic

knowledge, but it is not impossible and it is important to do. We cannot improve that which we cannot measure and we do have a duty to inform students about how well they are doing in terms of developing skills which will be so essential to their later working lives. The schooling we give young people represents the single most important opportunity they will have to develop the knowledge, skills and attributes which will shape their progression through working life, and we do them a terrible disservice if we keep them in the dark about how well their competency development measures up to the demands of the labour market. Metrics are difficult and work is required to develop them appropriately, but they are achievable. After all, every day in every OECD country, recruitment panels are making judgements on exactly the sort of skills I am describing – the ability to be personally effective in applying knowledge to solve new problems. Studies show us that personal perceptions of an individual’s abilities in these areas are commonly very consistent. Intuition does have a value and demands to be better understood.

We also need to think about the labour market knowledge of teachers: continuous professional development should involve spending time in enterprises so that teachers have a better understanding of the evolution of the labour market and workplace but this will require some potentially difficult structural decisions. The teaching profession needs to own its standards and this comes through processes of continuous professional development which require real time and space. In a country like the UK, the trade-off may well be between greater focus on enabling the reflective learning which builds professionalization and larger class sizes and if so that would be a reasonable price to pay.

Finally, I do think we need to be honest with young people about how challenging the youth employment market has become. We need to be honest with them about how education to work transitions are now commonly complex and prolonged. Governments and educators need to recognise the consequence of these changes and take action to make transitions easier. As well as thinking anew about the curriculum and the preparations for modern working life that schooling provides, greater attention needs to be focused on improving signalling of the different pathways available to young people. This is why exposure to the workplace is so important within education. It not only provides excellent opportunities for experiential learning across the curriculum, but also underpins effective careers education and the decision-making of young people. Work experience and other forms of employer engagement demonstrate to young people the links between what they do in the classroom and how those skills ultimately will be used in the labour market. For young people, and for their teachers, that is a great motivator.

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Lorna Unwin

When it comes to thinking about school to work transitions and how they have changed over the years, it has to be admitted that we have never really thought through transition properly, only about transition to the professions through the 'royal route'. This route is regulated by the professional bodies. The rest of the labour market is not regulated in the same way. Previously, in the labour market you did not need qualifications in the same way as they are required today, for example many jobs required physical strength and involved routine tasks. Also, informal recruitment was widespread within some trades and apprenticeships, though, as research by Sarah Vickerstaff, John Goodwin and Henrietta O'Connor has shown, there never was a transition golden age – even in the 1950s and 60s, transitions from school to work could be messy and stressful. There were plenty of such jobs available. Now all that has changed, but with little planning as to how these changes might be addressed. The development has just been serendipity.

In terms of the *impact* of transitions on young people this has been particularly marked in the transition to jobs that lie outside the so-called professions. These jobs have changed – new jobs are being created/emerge on a regular basis. It is difficult to predict what skills such jobs may require. Although we do know that better communications skills, for example, are key requisites for today's labour market.

The policy emphasis on 'staying on' and HE expansion has precluded attention to other routes. It has also led to a displacement problem – those with higher level qualifications are now doing intermediate level jobs. The increase in supply of graduates is out of kilter with the level of demand. There is simply a mismatch between supply and demand.

There is nothing new in asking questions about how well young people are prepared for employment. In the 1970s we attempted to develop such things as core skills, later key skills, to address the perceived deficiencies in young people seeking to enter the labour market (employer perceptions). But these were wrongly conceptualised as something for 'low level' learners. There still has not been anything solid for employers to understand, or for education to understand for that matter. Fundamentally this is a pedagogical question: it is the way in which these things are taught and learned, how they are contextualised that is crucial. Assessment is also a real issue here – how do we assess these skills? Can we assess these skills out of a workplace context? We are 'hung up' on terminology when we need to be concerned with pedagogy. There needs to be a new partnership between HR and specialist teachers; it needs to be thought about in a much more sophisticated way.

It isn't the young people's problem, but they do need support. There are lots of opportunities to develop these skills, but people do not know how to do this. It is an issue for teacher training and for CPD. There is also an equity issue here, as some young people have boundless opportunities to develop these skills, and others simply do not.

Employers are very busy; recruitment is a difficult exercise and there is often insufficient time to do the job in enough depth (there is danger of shorthand or short cuts being used, for example qualifications being used as proxies for skills). Some of the leading employer groups could articulate better what it is they want.

How can schools best prepare young people to succeed in the labour market? At the end of the day education has to play a big role. Apprenticeships, traineeships, internships and graduate schemes all provide opportunities to develop these skills. But it has to be remembered that, according to UKCES, only 6% of employers recruit school leavers. 37% of employers recruit young people who have had some further education.

Because transitions are far more diverse now – there are not just three routes, but many, we need to support young people up to 19 and beyond. A 16 to 25 transition framework is required because young people will make several changes within this time. The economic situation is volatile and there is huge variability across sectors, geographical regions, labour markets because there is no national system. There are false notions that particular courses lead to specific jobs.

Workplaces are daunting; we have lost the notion of maturation – as in a good apprenticeship. Employers need to more empathetic to young people and provide workplaces that do this. Role models are important.

Schools should definitely be at the heart of developing confidence and resilience in young people – a sense that they are progressing. This should underpin everything that schools do. At the Post-16 stage, young people require a full timetable (whether in full-time education or apprenticeship) with appropriate enrichment activities (as we see in Denmark and the Netherlands). There should be more sharing across schools, colleges and workplaces. Pre-16 and post-16 work experience is important for all kinds of reasons, not just for a potential careers insight. It also provides opportunities for teachers to get to know their local labour market. Providing traineeships, including real workplace experience, are also important.

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Annex 1: Question framework for semi-structured interviews

1 Over the last generation/recent years, has the labour market become more difficult/hostile to young people? Are education to work transitions getting more difficult for young people in the UK? Is it getting worse? Better? Why so? Supply and demand side? Should it matter to policy makers? Why?

2 If things are getting more difficult for young people, how is that best explained? Is it becoming more difficult for young people to make informed investment decisions about their accumulation of education, qualifications and skills? Skills mismatch? To what extent are poor education to work transitions exacerbated by young people struggling to respond to the psychological demands of the labour market? Resiliency/investment decisions through fractured transitions? To what extent are poor education to work transitions exacerbated by young people struggling to demonstrate the personal qualities (employability skills) demanded by employers? The ability to apply knowledge? Is this a service sector issue?

3 What would a core Maths curriculum (up to 16) which provides an effective preparation for 21st century employment look like? Should we have GCSEs in Numeracy and Mathematics like English Language and Literature?

4 How can schools best prepare young people to succeed in the labour market? How should schools respond to the changes in the youth labour market? Should they focus on helping young people to gain as many rigorous academic qualifications as possible? Should schools work actively to help young people understand the character of the labour market? Should schools work actively to help young people develop personal resiliency? How? Should schools work actively to help young people develop employability skills/gain work experience? How? Should schools work actively to help young people make good investment decisions about the education, skills and qualifications they attempt? Implications for careers? Can't they just be left alone to do it? Anything else schools should do?

Annex 2: What do employers want from the school curriculum? Towards a new approach.

“Ensuring a good match between the skills acquired in education ... and those required in the labour market is essential if countries want to make the most of their investments in human capital and promote strong and inclusive growth.” OECD (2013), Skills Outlook – First results from the Survey of Adult Skills

On November 11th 2013, national leaders from the worlds of education and employment (see annex for attendees) came together at the invitation of the Education and Employers Taskforce to reflect on the chastening findings of the OECD’s 2013 *Survey of Adult Skills*. During the working lunch, there was a clear view that the barriers separating the classroom and workplace must become more porous with greater clarity in terms of what employers truly require of young recruits, particularly in terms of the curriculum.

Works in the UK by the CBI (notably, the *First Steps* report), the CIPD, the Taskforce and the UKCES, and overseas by the Harvard University and OECD provide messages which cannot be ignored. They consistently argue that the new character of the twenty-first century labour market, fundamentally different to that which existed a generation ago, drives a pressing need to close the gap between the current needs of employers and the reality of today’s education system. To thrive in today’s labour market, young people need qualifications that match, and are informed by, their emerging and informed aspirations. It is recognised that while ever growing proportions of jobs do require higher levels of skills and qualifications, these, in and of themselves, are rarely enough to guarantee success.

As Brian Lightman, General Secretary of the Association of School and College Leaders (ASCL) made clear, there is significant interest across school leaders for clearer understandings of what employers truly demand in terms of the knowledge, skills and attributes of young people coming into the labour market. ASCL, which represents school leaders in 90% of the UK’s secondary schools, is committed to using its good offices to communicate clearly what employers actually want in terms of the curriculum if only a clear statement was available. Support is also strong from the National Association of Head Teachers which represents the vast majority of primary school leaders.

With academisation, a growing proportion of schools (half of all English secondary schools as of early 2014) now have discretion over curriculum driving interest from school leaders in new approaches to curriculum development and delivery at both local (school) level and at national levels (eg, curriculum related to specific subjects).

Attendees on the 11th November 2013: What does the OECD's Survey of Adults Skills mean for employers and our education and skills system?

Ariel Eckstein	Managing Director	LinkedIn EMEA
Brent Hoberman	Internet Entrepreneur and Investor	
Brian Lightman	General Secretary	Association of School and College Leaders
Charles Parker	Chief Executive	Baker Dearing Educational Trust
Christine Hodgson	Chairman	Capgemini UK plc
Dame Clara Furse	Chairman	Nomura Bank International
David Cruickshank	Chairman	Deloitte and Chairman Education and Employers
David Frost	Chair	LEP Network
Jeremy Newman	Chairman	Audit Commission
John Morgan	Chief executive	Morgan Sindall Plc
Kay Carberry	Assistant General Secretary	Trade Union Congress
Lesley Giles	Deputy Director for Research and Policy	UKCES
Lord Michael Grade		
Mark Protherough	Executive Director	ICAEW
Mr Russell Hobby	General Secretary	National Association of Head Teachers
Nick Chambers	Director	Education and Employers Taskforce
Paul Drechsler	Chairman and Chief Executive	Wates
Paul Ryder	Group Co-Head of LTROD	HSBC
Peter Cheese	CEO	CIPD
Peter Dart	Director	WPP
Richard Hardie	Chairman	UBS Ltd
Ron Dennis CBE	Executive Chairman	McLaren Automotive and McLaren Group
Sir Anthony Salz	Executive Vice Chairman	Rothschild
Sir Charlie Mayfield	Chairman	John Lewis Partnership and Chairman of UKCES
Sir Mike Rake	Chairman	BT Group and President of the CBI
Stephen Welton	CEO	Business Growth Fund
Terry Morgan CBE	Chairman	Crossrail
Tim Thomas	Head of Employment Policy	EEF