



JOINT DIALOGUE:

How are schools developing real employability skills?

A COLLABORATIVE WORK BY EDUCATION AND EMPLOYERS,
THE EDGE FOUNDATION AND NATIONAL EDUCATION UNION

Education
and
Employers

 The Edge
Foundation



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NICK CHAMBERS

CEO, Education and Employers



The phrase '*Working together for young people*' could be said to sum up this report. It is also the strapline for our charity Education and Employers, which since its launch in 2009 has sought to better understand how education and employers can work together to the benefit of our young people.

Given all the change and uncertainty about jobs, projected labour market demand and the skills that will be needed in the future, this report is very timely. Employers frequently talk about the '*employability skills*' that school leavers need to have and there are a range of different definitions of what these skills actually are.

Meanwhile the results of the survey of teachers shows that schools are making tremendous headway in developing '*employability skills*', citing for example teamwork, communication and self-management being core to many activities. And while there are certainly challenges to overcome, including finding time in the curriculum to develop these skills, schools are providing opportunities across the curriculum to equip young people for life beyond school.

However, what is missing is an agreed framework, a common language which is what this important report is seeking to address. By working in partnership with experts from the Edge Foundation and National Education Union, undertaking a comprehensive literature review and conducting interviews with employers and schools, a proposed framework has been devised. These skills and competencies have been brought together not as a new tool for measurement, but rather to aid schools in designing their curricular and extra-curricular activities to help young people make successful transitions to employment. It is hoped that this will be used as the basis for discussions with a wide range of employers, employer bodies and representatives of the teaching profession.

We know from the extensive work the charity has undertaken over the last eight years that it is extremely beneficial for young people to interact with volunteers from the world of work. It not only helps broaden horizons and raise aspirations but also provides them with the vital work-related knowledge and skills which supports them as they move from school to work. Our charity's aim is to provide young people with interactions with the world of work which can help them achieve their potential. Creating a joint dialogue between schools and employers can help make this a reality.

ALICE BARNARD

CEO, The Edge Foundation



The Edge Foundation's recent research shows the scale of skills shortages across the economy. The government's own *Employer Skills Survey* showed that there were 226,000 skills shortage vacancies in 2017, more than double the figure of 91,000 in 2011. These are coupled with more than 1.2 million skills gaps where workers do not have the full set of skills that their employer requires.

These shortages will only grow as we feel the full impact of Brexit and the Fourth Industrial Revolution, so it is more important than ever that our education system instils the skills and competencies young people need for their future life and work. For the first time, this research provides a common language and a comprehensive framework for these skills.

It is clear that our dedicated teaching workforce are doing their very best to develop these skills in young people at schools and colleges across the country. Yet what is most striking from this research is that they are doing this *in spite* of government policy that is actively narrowing the curriculum and seeking to design out exactly the skills and behaviours young people need.

With the narrow EBacc and schools held to account only on the basis of results in high-stakes tests that require rote learning, it comes as no surprise that two-thirds of teachers say that the new GCSEs and A-Levels have decreased the opportunity for young people to develop creative thinking. As we accelerate into the digital revolution, almost a fifth of teachers say that digital skills are simply not developed in school.

As school funding narrows further, the gulf between state-funded schools and the independent sector that government is consciously trying to emulate simply grows. While more than 90% of teachers in independent schools said pupils had the opportunity to develop creativity through extra-curricular activities, the same was true of just 67% in maintained schools.

The policy implications of this research are absolutely clear. Employers know exactly what skills they require for the future. Teachers understand this and are doing their best to instil them. The narrow old-fashioned schools policy focused on increasing our PISA rankings is the biggest barrier to them doing so. This must be changed if we are to give young people the best start to their careers.

DR MARY BOUSTED

Joint General Secretary, the National Education Union



Earlier this year, the OECD published *The Future of Education and Skills: Education 2030*, which outlines the challenges facing societies across the globe. Future generations must be equipped to respond to the threats and opportunities posed by climate change, developments in bio-technology and artificial intelligence, globalised financial markets, big data, urbanisation, migration and increasing inequalities. The world of work is no less uncertain. In 2016, the World Economic Forum published *The Future of Jobs* which stated that 'by one popular estimate, 65% of children entering primary school today will ultimately end up working in completely new job types that don't yet exist'.

This ground-breaking research therefore comes at a vital time. In our uncertain and complex world, so-called 'soft' or 'transferable' skills are increasingly cited as the necessary tools to forge a successful career. A plethora of reports are published each year, detailing the missing skills in young people entering the workplace. It is refreshing therefore, to introduce research that brings employers' requirements together with the work that takes place in schools to equip students for the future.

The debates on the existence, or lack of, employability skills possessed by young employees have been raging for decades. Back in 1990, the CBI stated that "In both education and training 'core skills' have not had sufficient prominence in relation to subject knowledge" in its report *Towards a skills revolution: report of the Vocational Education and Training Task Force*. The first section of this research report demonstrates that these debates are far from concluded. There are many reasons for this, including perhaps employers' unrealistic expectations. On starting their first job, young people are far from the finished article, and will require support, training, upskilling and reskilling throughout their careers. This is where trade unions can play a significant role, not only in supporting employees, but also in providing vital workplace training.

It is important to remember however, that education is not only about creating workers and employees, but should also aim to develop well-rounded citizens, equipped with the skills to live a happy, healthy and balanced life. Of-course schools must and do, as is evident from this research, play a part in developing employability skills. It is clear however, that despite the best intentions of teachers, government policy is hampering their efforts. Cuts to school budgets, unsustainable workloads, an accountability regime that prizes data above all else, the over-assessment of pupils, an increasingly academic school curriculum, are increasingly taking their toll.

In its *Education 2030* report, the OECD makes the case for education systems that develop a broad set of knowledge, skills, attitudes and values to enable the adults of the future to take on these challenges. It is crucial therefore, that employers continue the dialogue started with this research, not only to further refine their skills needs and support teachers to deliver this, but also to lobby the government for an education system fit for the 21st century and beyond.

I. ACKNOWLEDGEMENTS

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We would like to thank the teachers and schools that took part in the national survey for their valuable input.

We would also like to personally thank the individuals that took part in the focus groups for their contributions and insights.



EXECUTIVE SUMMARY

Recent figures from both the Confederation of British Industry (CBI) and Department for Education have shown that, in the eyes of employers, the value of academic qualifications are decreasing, with businesses placing increased attention on the skills and competencies a young person possesses when looking to recruit. This report explores how schools are providing young people with opportunities to develop and exercise the vital skills and competencies that employers have called for in recent publications and surveys. Taken together, this will provide a powerful narrative about the specific skills that employers are looking for, where these are being developed, and how schools can give their pupils the best chance of putting them in place to maximise their employability.

There have been numerous studies asking employers 'what they really want' in terms of workforce skills. These often show that employers express concerns about students' skills level in certain areas, for instance, communications. But there are two challenges – the number of overlapping studies and the broad definition of these skills. This report takes a summative approach, aiming to come up with a more collective view of the skills gaps. It also takes this to a greater level of detail, looking at specific tasks and functions (for example, in the case of communication this could be about participating in meetings, making presentations, writing emails or drafting reports).

Second, we wanted to understand specifically where young people are being supported to develop these skills. In some cases, this will be in the classroom (e.g. preparing a presentation as a team in a geography class) and in others it will be in 'extra-curricular' settings from after school clubs to work experience to scouts.

The study draws upon existing literature assessing the skills and behaviours young people need to find work, and then thrive once there. The objective of this literature search was to create a collective view of the skills employers most commonly felt are needed in the workforce. The findings gathered from the literature formed the main discussion with professionals with first-hand experience of recruitment in large and small enterprises across private, public and third sectors.

The report also sets out the findings from a survey of 626 secondary school teaching staff based in England. The survey, completed by staff at independent, maintained and academy institutions, investigated how the skills and competencies are being developed in different school-based environments. It went on to explore how changes to the curriculum, at both Key Stage 3 and Key Stage 4, had impacted on the ability of schools to develop the skills needed in the 21st century labour market.

The report uses a definition of employability skills used by Fettes et al. (2018). They identify the 'qualities and attitudes' needed to become employable as distinct from, though interrelated to, the 'basic and personal' skills needed for smooth and successful transitions to work. By reviewing contemporary literature,

this report sets out to distil the key 'basic skills', 'personal, people, creative and problem-solving skills' and the 'personal qualities and attitudes'.



Adapted from: Fettes et al. (2018). *Putting Skills to Work: It's not so much the WHAT or even the WHY, but HOW...* London: Commercial Education Trust

Key findings

Across 21 studies identified through the review, eight employability skills and four 'competencies' were found to be most frequently cited by employers. Subsequently employers from a range of industries offered examples of how these skills and competencies can help young people during recruitment processes and at early stages of employment. Focus group attendees noted that these skills and competencies should be seen as 'interdependent', with certain skills and competencies growing and developing as others grow. They also acknowledged that the development of these skills should be supported by 'meta-cognitive strategies', in other words exercises to help students to re-contextualise them and apply them to new situations.



Development of skills in schools

From our survey, it appears teachers are evidently and resolutely setting about the task of supporting their students to develop these skills.

- Over 90% of teachers believe that the top five skills and two of the four competencies cited by employers are developed in school. The vast majority state that students have a range of opportunities to acquire and practise these skills through classwork and extra-curricular activities.
- Teachers believe that teamwork, confidence, communication, creativity and problem solving are the top skills and competencies developed through *extra-curricular activities*.
- Respondents also noted that communication, problem solving, team work, creativity and reflection are being developed through *classwork*.
- Teachers use lessons outside of the subject areas, such as tutor time, to help students with information about the world of work and to boost their communication skills.
- Other activities during the school day, such as interacting with peers, support the development of communication and teamwork skills.

Teachers gave detailed examples of how school is making students more employable. Despite the work and effort schools are investing in developing and instilling these skills and competencies in young people, certain challenges such as time and resources affect the level of development.

The impact of a narrowing curriculum

The research highlights that current Government policy, such as the narrower curriculum and increased content and exam-focus of GCSEs and A levels, are standing in the way of young people developing the skills necessary for working life.

- 32% of teachers told us that changes to the Key Stage 3 curriculum have been detrimental to developing the skills and attitudes needed for work.
- 56% of respondents to the schools' survey feel that changes to the Key Stage 3 National Curriculum are limiting students' chances to acquire creative thinking skills. 45% believe that young people have limited opportunities to develop their career development skills (we group these skills under the umbrella 'informed').
- Nearly half (47%) of teachers believe that there are fewer opportunities to develop employability skills and competencies since the introduction of the reformed GCSEs and A levels. Of these a third stated that changes to the syllabus had, for example, necessitated a new focus on rote learning to the detriment of developing the skills and attitudes needed for work.
- 66% of teachers felt that following the introduction of the new GCSEs and A levels there was less opportunity to develop creativity, with 61% stating there was less opportunity to develop teamwork.
- 55% of respondents believe the reformed GCSEs and A levels are not improving students' confidence.

INTRODUCTION

This report, produced by the charity Education and Employers in partnership with the Edge Foundation and the National Education Union (NEU), seeks to provide insight on how schools are preparing young people with the skills demanded by the 21st century labour market and how much policy changes are affecting their ability to do so. It also aims to underline the importance of bridging the communication gap between educators and employers by showing the demand against the supply of skills and competencies.

While personal circumstances and appropriate level qualifications are vital in making the transition from school to work (Impetus, 2014), employability skills and competencies are paramount when it comes to making young people 'employable'. After completing schooling, young people face greater expectations from employers that they are work ready and greater competition for work from older, perhaps more qualified, workers. Once in employment, a growing number of employers have a changed sense of what they most desire from their employees: the new economy places much greater value on the ability of workers to be personally effective in applying their knowledge and skills in new situations.

'Considered collectively, no prior generation has ever entered the world of work with more years of schooling, higher levels of qualification or greater human capital to their names, and yet mounting evidence shows them struggling to compete for economic opportunities.'

(Education and Employers, 2017: 12)

There is a growing need for young people to hold a broader set of characteristics when entering the labour market. Rather than the qualities of diligence and submissiveness employers are increasingly looking for people who can engage and respond to less predictable work situations (Mann and Huddleston, 2016). Recent work by the Sutton Trust and the World Economic Forum (WEF) have also argued that technological trends in the UK

labour market mean that the value of interpersonal skills are likely to grow exponentially as automation further takes hold (Sutton Trust, 2017; WEF, 2018).

While there is agreement around the 'changing' nature of employability, defining employability in practice is more difficult, with a wide range of definitions coexisting in present literature. Finding out the skills and competencies needed for work is no easy task. For a teacher or young person, a simple Google search of 'employability skills' throws up thousands of different blog posts, lists, online resources, reports and programmes each giving different definitions of the skills young people need to apply and be successful in different roles. How can schools, and young people themselves, begin to develop these skills if they cannot be sure what the skills mean, let alone which are the most important? As Youth Employment UK put it:

'The most vocal critics of employability frameworks note the lack of solid definitions, which provides an unwelcome space for 'buzzwords' to creep in.'

(Youth Employment UK, 2017: 5).

It appears that the problem when it comes to employability is not lack of information about what employers want, or what makes a young person work ready, but instead a lack of well-researched and agreed language between all stakeholders. This report sets out these common skills and competencies and then identifies, using insights from employers, how these are exhibited during the

recruitment process and early stages of employment.

Recent surveys of employers and teachers reinforce the message that these skills are equally, if not more, important than academic qualifications. The 2018 *Employers Perspectives Survey* by the Department for Education (DfE) notes that employers felt that a young person's 'attitude to work' was most important when making the decision to hire. Attitudes such as resilience, enthusiasm and creativity were considered as having central importance to employers (DfE, 2018).

In section 2 of the report, we set out the results of our meta-analysis of reports, papers and grey literature that provide reliable insights into current employability skill gaps and demands of the job market. The review set out to create a summative and collective view of the skills employers and other stakeholders most commonly state makes a young person employable. By excluding technical or 'hard skills' from this 'Skills Grid', it is hoped that it will be universally applicable to all young people. This framework will facilitate a common understanding of work readiness and the key capabilities *all* young people need.

Section 3 outlines key messages emerging from discussion with employers with first-hand experience of recruitment in large and small enterprises across private, public and third sectors. To make our 'Skills Grid' accessible for schools and young people, employers were asked to consider tangible examples of what they would expect new recruits from school to be able to demonstrate in the workplace.

If the issue of youth employability is to be solved, young people must be supported by schools to develop these skills and competencies, in particular students who don't have or have limited access to opportunities to learn the set of skills and attributes favoured by the modern workplaces. Work by Fettes et al. (2018) has shown common features of effective practice in facilitating the development of skills. In reviewing contemporary literature and assessing the effectiveness of programmes that are designed to address the needs of young people to 'employability skills', they outline ways in which schools and teachers can help young people develop and then apply these skills in new and unfamiliar jobs, teams or sectors.

In this report we seek to build on findings in the recent literature by exploring how schools and teachers feel they are developing the skills and competencies frequently cited by the employers. We present the findings of a survey of nearly 700 secondary school teachers from independent, maintained and academy institutions which asked whether teachers believe the skills and competencies gathered from the literature and from our discussions with employers, are developed in different school environments such as through extra-curricular activities, or through interactions with peers. The findings of this research demonstrate that schools, in spite of policy changes, are doing their best to help young people to become employable in a number of environments and areas both inside and outside the curriculum.



METHODOLOGY

This section outlines how this study was designed and conducted to meet the following objectives:

- To understand and create a more detailed and collective view of what employers are looking for in terms of modern workforce skills.
- To understand specifically where in school young people are developing those skills and competencies.

2.1 Review of the recent literature

The literature review was conducted with the aim of identifying studies over the past 5 years that provided reliable insights into current employability skill gaps and the demands of the job market. The desk research was conducted by the research team using Google Scholar, Taylor Francis Online and JSTOR to include both academic and so-called 'grey' literature.¹ Literature was also drawn from extensive personal libraries within the research team. The review looked particularly at employability skills such as team-working and communication skills rather than wider technical skills. The review considered publications from 2000 onwards that contained labour market predictions or analysis of UK labour market trends.

The objective of this literature search was to create a summative and collective view of the skills employers most commonly felt were needed in the workforce. Across 21 studies identified through the review, eight underlying employability skills and four characteristic traits were found. To clarify what these skills look like in the workplace, the team then identified which specific tasks and functions the literature commonly associated with each skill and traits - for example, persuasion, written communication and using clear language were most commonly associated in the literature with communication skills.

2.1.1 Weighting system

In order to have a better understanding of the importance of the range of skills and characteristic traits found in the review, a scoring system was designed. Each competency/skill received a weighted score of between 0.25 and 1 according to the year in which the study was published. A skill or competency found within a report published in 2017 would receive a higher score than an older study published in 2015. Then, if a skill or competency was found in a report that was specific to a UK region or sector, the score was halved.

2.2 Focus Group Discussions

Upon completion of the literature review, the research team conducted two focus groups with employers in November 2017 and April 2018. The first focus group looked to gain an insight into the following questions:

1. Which skills/competencies are the most important for a young person to have when it comes to getting a job?
2. How relevant are the skills/competencies found in the literature to representative organisations?

¹ Public studies which have not been peer reviewed but may include analysis and findings of meaning undertaken using social science methodology.

3. What skills/competencies are missing from the employability skills literature?
4. What are the exhibits of these skills and competencies when recruiting young people?

Using the partners' network of volunteers, 12 employers were gathered from a range of sectors. The attendees were drawn predominantly from the HR, talent management or recruitment departments of businesses in the hope of drawing on their experience of hiring younger applicants. Prior to the focus group, the participants were sent a list of the eight wider employability skills and four competencies found within the literature. At the beginning of the session, employers were asked to rank them in order of which they felt were most important. Participants were then given 2 hours to discuss the first 3 questions listed above.

The second focus group was held after the analysis of the first round with the aim of gathering employers' views on the application of skills at their workplaces. This was set up to flesh out the detailed tasks and functions each skill consisted of from an employer's perspective. Six of the twelve employers were invited back to discuss question 4 mentioned above. The employers were asked to give real-life examples of the specific tasks and

functions for each skill and competency within their workplaces. Participants in both sessions were asked for their consent to agree to be quoted in the final report, where appropriate.

Throughout the focus group discussions, it became clear that it was not possible to entirely generalise about 'what employers want'. This is hardly surprising given the heterogeneity of employers in both the focus group and the UK labour market. Different sectors, and different sized organisations, demand different skills from their prospective new employees. Yet, when employers were encouraged to move away from thinking about their own sectoral needs in terms of technical skills, agreement began to emerge.

Table 1: Industries represented in the first focus group

Industries	Job Roles	Number of representatives from first focus group	Number of representatives from second focus group
IT/Technology	Former head of Apprenticeship Recruitment and Management	2	2
	New Talent Manager		
Transport and Logistics	Head of Organisational Capability and Talent	2	1
	Director of Programmes (focus group one only)		
Accountancy	Director, Corporate & Business	1	1
Property and Construction	Apprenticeship Development Manager	1	1
Manufacturing	Head of Sustainability	1	1
Engineering	Technicians and Apprenticeships Executive	1	
Not-for-profit, focussed on business growth	CEO	2	
	Head of Policy and External Development		
Recruitment and HR	HR Manager	1	
Telecommunications	Industry Talent Specialist & Apprenticeships	1	

2.3 Online Survey of Teachers

Based on the findings from the literature and the first focus group with employers, the research team designed an online survey to understand where teachers and other school staff felt employability skills were being developed, which was distributed to the National Education Union (NEU) network of schools in April 2018. The survey provided 626 responses from teachers across England. Consisting of closed and open-ended questions, the survey asked teacher's their view on where each of the core skills and characteristic traits are being developed, as well as their school's demography, their teacher role and teaching subject area. They were asked to give detailed examples of how young people are learning certain skills and competencies which would inform the main theme of this study. The final section of the survey asked respondents to share their views as to whether they think there were fewer, the same or more opportunities to develop each skill and competency since the introduction of the new GCSEs and A Levels and the introduction of the new KS3 National Curriculum in 2014.

As Figure 1 shows, the survey received a wide geographic distribution of responses from teachers located across 134 local authorities, 69 of whom belonged to schools in Hertfordshire, Essex and Kent. Most respondents were from academies (70.7%) (Table 2). 63% of teachers identified themselves as being a subject teacher and another 30% held the position of curriculum/subject leader.

Table 2: School type of survey respondents

School Type	Maintained	Academy	Independent
Number of schools	161	441	22
Percentage (%)	25.8%	70.7%	3.5%

Figure 1: Geographic distribution of survey



2.3.1 Weighting of the sample

To ensure the sample of teachers reflected the population of schools in England, data from the Department of Education (DfE) and Independent Schools Council (ISC) on school type was used to weight the response numbers.

As Table 3 below shows, a weight factor was determined for each school type by dividing the percentage of Academies, Maintained and Independent schools in the sample by the national distribution of school types.

Table 3: Weighting of the sample by school type

	DfE/ICS data ²		Survey Sample		Weight factor
Independent	244	6.6%	22	3.5%	1.88
Academy	2364	64.2%	441	70.7%	0.91
Maintained	1072	29.1%	161	25.8%	1.13
Total	3680	100.0%	626	100.0%	/

²² Independent Schools Council. (2018). *Census and Annual Report 2018*. London: Independent Schools Council; Department for Education. (2018). *Statistics: School and Pupil Numbers*. From: <https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers> (accessed 14/11/2018)

EMPLOYABILITY SKILLS –

Review of the recent literature

This section presents the findings from our rapid review of recent reports and literature on the theme of employability skills. It also provides a contextual background for the report, including current definitions of skills and why the current focus from government and schools on skill development is a right one.

3.1 What do we mean by ‘employability skills’?

The term ‘employability skills’ has been used for many years by policy-makers and researchers. Sometimes definitions go a step further than simply focusing on the ability to secure employment, and specifically include the ability to sustain employment and to progress within work too. But, do we have a consistent and common understanding and definition of skills and competencies? The definition outlined by UKCES in 2014, drawing on the work of McQuaid and colleagues (2006) note that employability skills should be taken to be:

The set of basic/generic skills and attitudinal/behavioural characteristics that are believed to be essential for individuals to secure and sustain employment, and also to progress in the workplace.

(UKCES, 2014: 3).

Some researchers also believe that employability skills are not confined to a set of skills and competences that makes one employable, but extends to skills that help with job search, career decision-making and career management (Koen et al. 2012; Neary et al. 2016).

Career management skills describe the skills and attributes that individuals need to successfully manage their job. So, while employability skills describe the skills that you need to find and keep work, career management skills describe the skills that you need to progress within work and to build a successful career. In practice many of these skills overlap.

(Neary et al. 2016: 13)

It is worth reemphasising the contentious and often contradictory definitions of employability skills found in the literature. In both the UK and internationally, skills (communication, presentation, problem solving) have often been conflated with attitudes and behaviours (confidence, resilience). In perhaps the most comprehensive exploration and definition of employability skills to date, Fettes et al. (2018) draw upon the existing literature, as well as case studies from a number of UK employability programmes to outline the multi-faceted and multi-layered nature of defining employability skills. The report identifies the ‘qualities and attitudes’ needed to become employable as distinct from, though interrelated to, the ‘basic and personal’ skills

needed for smooth and successful transitions to work.

*To optimise their ability to gain entry to the labour market and respond flexibly to its changing demands, the literature and case study examples suggest that, in addition to **basic skills** (literacy, numeracy and ICT – the foundation for learning and functioning in society), young adults increasingly need **personal, people, creative and problem-solving skills**. However, to be able to apply these skills in ways to suit a particular situation, task or problem, to contextualise and re-contextualise skills for themselves in moving between different contexts, they also need:*

- ***meta-cognitive strategies** which relate to higher-order thinking - thinking about thought processes - and self-knowledge. Such strategies include, for example: goal-setting, selecting, planning, self-assessment, monitoring and reflection on own learning and performance. They enable individuals to develop as self-regulating learners, knowing when and why to use particular approaches*
 - ***personal qualities and attitudes**, such as confidence, resilience, initiative, self-motivation, ambition.*
- (Fettes et al. 2018: 21)

Throughout contemporary literature, skills are also often defined as 'soft' and 'hard' to distinguish the transferrable personal skills or attributes needed for work that enable individuals to be effective in managing their own career and development, and technical or job-specific skills, which are more specifically related to jobs within particular sectors. Yet, as Fettes et al (2018) point out:

This distinction is not so clear-cut. For example, some skills described as technical and practical, or 'hard' may

also be required across different occupational sectors.
(Fettes et al. 2018: 22)

They draw upon work conducted by the design council as an example of how 'hard' skills are often relevant to multiple professions.

Design skills are not confined just to design sectors. At least 2.5m people use design skills in their day-to-day work. This is equivalent to one in 12 workers (8%)... demand for workers with these skills has grown at twice the rate of UK employment over the same period (14% vs 7% since 2012).
(Design Council, 2017, quoted in Fettes et al. 2018)

Building on this notion, a recent Australian study found that jobs, and the technical skills used within them, are more related than many may previously have considered. Using big data, the Foundation for Young Australians study analysed more than 2.7 million job advertisements to reveal seven new job clusters in the Australian economy where the required skills are more closely related and more portable than we previously understood. The job clusters are the 'Generators', the 'Artisans', the 'Carers', the 'Informers', the 'Technologists', the 'Designers' and the 'Coordinators'. When a person trains or works in one job, they gain skills for around 13 other jobs because employers demand very similar skills in many jobs. In some cases, if someone has trained for or worked in one job, only one additional skill is required for a further 44 different jobs³ (Foundation for Young Australians. 2018).

3.2 The importance of employability skills

Recent reports and surveys of both public and private sector employers have consistently reported a lack of work-ready, employable young people coming straight from school or college. A

³ While this is an important point to consider, defining transferrable 'hard' or technical skills is out of the remit of the study. Instead by reviewing contemporary literature we set out to distil the key 'basic skills', 'personal, people, creative and problem-solving skills' and the 'personal qualities and attitudes', as defined by Fettes et al. (2018), that are common across these pieces of research.

2018 survey of 4000 finance professions carried by the Chartered Institute for Management Consultants (CIMA) found that 80% of respondents believed British school-leavers lack the 'essential business skills' needed for work (CIMA, 2018). In the larger *Employers Perspectives Survey*, published by the Department for Education in 2017, 18,000 employers were asked what drives their decisions on recruitment and people development, and, importantly how well they feel that education leavers are prepared for work. Only around half of employers said recruits from education were prepared for work. Where they felt that recruits were not prepared it was generally because they had a lack of experience of the working world or a poor attitude, emphasising the importance of work placements (DfE, 2017b). Figure 2 below shows how young people's preparedness seems to be moving in the wrong direction, in particular for FE leavers in England.

Employers have also been consistently clear that what they need to fill the current skills shortages is not individuals who have more academic qualifications but those with the transferable employability skills that enable them to thrive in any business environment. In the Government's own Employer Perspectives Survey, less than half of employers (46%) said that academic qualifications were significant or critical when hiring, compared to almost two-thirds (65%) for relevant work experience.

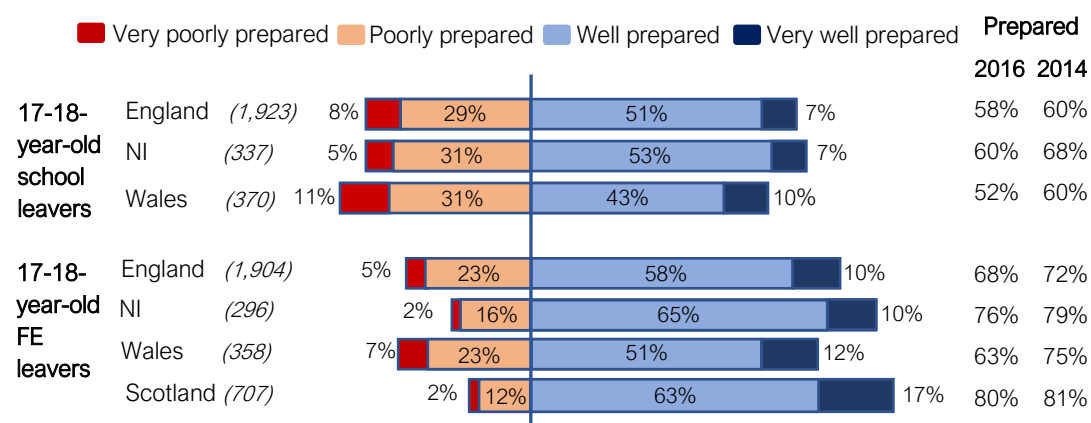
The issue of lack of skills needed for work is voiced not only by policy makers and employers. Students also regularly challenge the lack of curriculum time dedicated to preparing them for the world of work. A recent survey of 1,001 secondary school students conducted by the Career Colleges Trust found that students overwhelmingly thought they were being prepared to pass exams rather than developing skills for their future career or preparing for the workplace (Career Colleges Trust, 2015).

In their 2017 report Education and Employers set out findings from a representative survey of some 1,800 young Britons aged 19-24. The survey investigated the experiences of these young people as they made their transition to work from school. The report looked at which activities are commonly

undertaken by schools and colleges to help prepare them for school to work transitions and specifically explored in which areas young people would have welcomed more help from their schools/colleges. The study found that that 50% of young adults would have welcomed more help in understanding which skills are likely to be demanded in the future, with 60% expressing a desire for schools to prepare them for performing well at interview (Mann et al. 2017).

Ensuring young people master these employability skills is not only important for employers in the short to medium-term. Research has shown that developing these skills while in school can be associated with positive economic and work outcomes in later life too (Carniero et al. 2007; Taylor, 2017; Prince's Trust, 2016). A growing body of research also emphasises the role of 'non cognitive' employability skills, including social skills and leadership skills. Much of this research comes from the pioneering work of Heckman (1995), that wage premia are likely shaped by an array of skills since measured cognitive ability accounts for only a small portion of the variation in such outcomes (Heckman and Kautz, 2012). A recent report from the Early Intervention Foundation found similar results. Namely that in particular, self-control, self-awareness, and self-efficacy skills were linked to increased earnings and job success in later life (Goodman et al. 2015). Another study, from Carniero and colleagues, analysed data from the National Child Development Study and found that a combination of cognitive skills and non-academic skills are associated with higher hourly wages and the likelihood of employment in adulthood (Carniero et al. 2007). Additionally, an analysis of longitudinal studies across 11 countries in the OECD found that in the UK, non-academic skills were as important as academic skills in their association with improved income and employment (OECD, 2015).

Figure 2: Preparedness of education leavers by country and in comparison with 2014 (Taken from: Department for Education *Employers Perspectives Survey 2018*)



3.3 The changing nature of finding and thriving in work

Modern transitions from education into sustained employment are widely acknowledged to be longer and more fractured than in the past and are much more likely to require that young people show resilience when navigating an increasingly complex labour market (Tomlinson, 2013). Structural changes in how employers recruit and what skills are required by the modern labour market have significance for schools and for young people. Businesses are increasingly looking for a broader set of skills and competencies reflecting an expectation of continual change within workplaces considering technological advancements, globalisation and geopolitical factors. In their 2015 study, Mann and Huddleston assessed insights from four focus groups of British recruiters with first-hand experience of hiring young people as well as the thoughts of key policy commentators. They found that many recruiters reported that employability skills were often severely lacking in young people applying for roles (Mann and Huddleston, 2015). There was considerable agreement about the growing misalignment between the character of knowledge and skills possessed by young people and the demands of the labour market. They summarise the challenges facing young people, and in doing so highlight the need to develop key competencies before they reach the labour market:

Leaving education, they face greater expectations from employers that they are job ready and greater competition for work from older workers. Once in employment, growing numbers of employers have a changed sense of what they most desire from the workforce: the new economy places much greater value on the ability of workers to be personally effective in applying their knowledge and skills in new situations.

(Mann and Huddleston, 2015: 216).

The Industrial Strategy Commission has acknowledged that 'ensuring better utilisation of people's skills must be core to a new strategy' (Industrial Strategy Commission, 2017). Skills not only have to be acquired and available, to 'add value for individuals and employers, they have to be effectively used in the workplace' and 'developed over time in line with their evolving jobs and other job opportunities...' (Campbell, 2016: 14).

For schools, a key message taken from the existing literature is to broaden the provision of activities, both inside and outside the curriculum, that seek to develop employability skills that reflect changes in the labour market and to meet the needs of their pupils when entering the workplace. Yet, for school leaders and college professionals, often berated within public discourses for the poor 'employability' of youth who have never left education more highly

qualified (Bolton, 2012), the capacity to prepare young people with the skills they need for work is restricted. With an externally set curriculum and constant changes in school systems and examinations, they feel limited in what they can do to support young people beyond ensuring the best academic record possible.

3.4 Current policy

In recent years there has been very patchy interest from policy makers in embedding employability, or transferrable skills into the curriculum. In 2017 the Department for Education (DfE) outlined a renewed focus on building character traits such as resilience in the curriculum (DfE, 2017c). More recently the DfE has published its statutory guidance document on *Careers Guidance and Inspiration* which highlights what schools can do to ensure all pupils have the employability skills needed for the world of work:

A clear focus on the enterprise and employability skills, experience and qualifications that employers want can support preparation for work. Schools should help pupils gain the confidence to compete in the labour market by providing opportunities to gain the practical know-how and attributes that are relevant for employment.

(DfE, 2018: 22).

Yet at the same time, broader schools policy is focusing increasingly on a narrow range of academic subjects through the EBacc and Progress 8. Entries to GCSEs in technical and creative subjects have fallen dramatically as a result. In their exploration of creative and cultural sectors and the dwindling access to them, Huddleston and Ashton (2018) note:

Many creative opportunities have been reduced, if not excised, from the National Curriculum in England, particularly at key stage 4 (age 14-16). For example, the 'English Baccalaureate (EBacc) measure, an indicator against which schools' performances are assessed includes

five subjects: English, mathematics, science, a language, history or geography. Whilst there is opportunity within the curriculum to pursue other subjects as well, the perverse consequences have been for schools to concentrate their efforts on improving performance in these subjects at the expense of others.
(Huddleston and Ashton, 2018: 85)

As a result, the secondary school curriculum in England provides fewer opportunities than previously for pupils to access a broad range of creative and cultural experiences. These opportunities are important not because the intention is to turn all pupils into professional dancers, musicians, designer and film makers, but because such exposure offers enriching and fulfilling experiences on a personal and societal level in terms of skills development, health and well-being (Huddleston and Ashton, 2018). In their recent policy report, the Edge Foundation argue that this push towards a 'knowledge rich' curriculum learned by rote for stringent end-point examinations 'fails to give all young people the skills that employers have clearly asked for in their workforce for the future' (Edge Foundation, 2018: 16)

Ofsted also plays a crucial role here and their position is not always in tune with the Department's. Their Common Inspection Framework introduced in September 2015 put an increased focus on the importance of careers guidance for all young people aged 13–18 which enables pupils to understand how their education equips them with the competencies and attitudes necessary for success in their next stage of education, training or employment and for their adult life. For schools and colleges there is growing need to offer activities which develop the skills and competencies needed for work. Recent statements by the Chief Inspector suggest an even greater focus on breadth and preparation for the future in the revised Framework due to take effect from September 2019.

Section 5 of this report further explores where teachers across England believe employability skills and competencies are developed (or no longer developed) in school or through extra-curricular activities as a result of these changes.

3.5 Developing a common language

When employers talk about employability they usually point towards transferrable skills (i.e. the 'basic skills', 'personal, people, creative and problem-solving skills' and the 'personal qualities and attitudes' needed for work (Fettes et al. 2018). Many of them follow this point with the observation that we need a better term for these – perhaps 'employability skills', 'twenty-first century skills' or 'timeless skills'.

This report provides a synthesis of recent research on the theme of employability skills. It does not aim to provide a comprehensive literature review, as the relevant literature in this area is vast and wide-ranging. Instead it brings together key findings on the topic from the last ten years or so, focusing mainly on literature which discusses what employers look for in school leavers.

The skills gathered from the literature are limited to those that can be developed and taught within the curriculum or through extra-curricular activities. The report does not consider technical, job-specific or 'hard' skills (professional knowledge, tools or techniques) that may be needed by certain professions in the future.

The review was designed with the aim of identifying literature which provides reliable insights of value to skills gaps and shortages in the UK from the year 2015 onwards. The review explored employability skills e.g. team-working, communication skills rather than wider structural skills shortages such as GCSE or higher qualifications. Studies were included from the year 2015 because it was felt that the emphasis of this report was on current skills shortages using current data, rather than historical trends. Therefore, it was felt any studies prior to 2015 would be using potentially outdated and now irrelevant data. However, the review also considered studies or papers from 2000 onwards that contain labour market predictions or analysis of UK labour market trends (for example UKCES Working Futures 2014 to 2024).

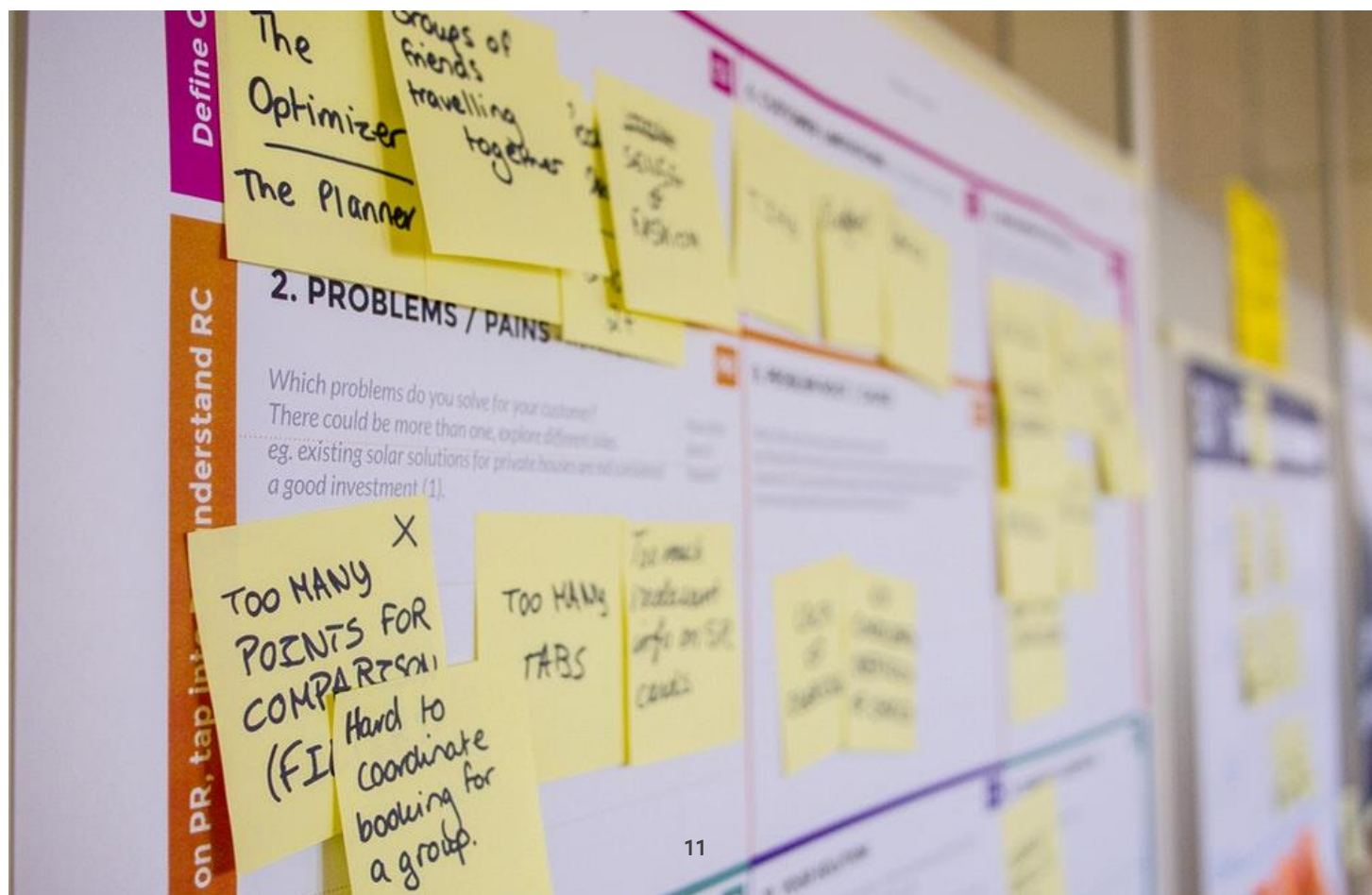


Table 4: Literature reviewed as part of this study

Year	Author	Report title
2009	UKCES	<i>The Employability Challenge</i>
2014	UKCES	<i>Employer Skills Survey 2013: UK Results</i>
	Impetus	<i>Ready for Work</i>
2015	Department for Education	<i>Character Traits</i>
	Career Development Institute (CDI)	<i>Frameworks for Careers, Employability and Enterprise Education</i>
	NPC	<i>Inspiring Impact: Journey to Employment (JET) Framework</i>
2016	City and Guilds	<i>Learning to be Employable</i>
	Derby, Derbyshire, Nottingham, Nottinghamshire LEP	<i>(D2N2) Employability Framework</i>
	Enabling Enterprise	<i>Skills Assessment Framework</i>
	The Tech Partnership	<i>Priorities for Entry Level Digital Skills Needs in Greater London: Supported by The Mayor of London</i>
	CBI/Pearson	<i>The Right Combination: CBI/Pearson Education and Skills Survey 2016</i>
2017	IGD	<i>Eight Essential Employability Skills for The Food Industry</i>
	Leicester and Leicestershire Enterprise Partnership	<i>Skills for The Future: Final Report</i>
	Youth Employment UK	<i>Employment Review 2017</i>
	University of Kent	<i>Skills Map</i>
	PIXL	<i>Why the Edge</i>
	The Prince's Trust	<i>Get Into</i>
	Barclays	<i>LifeSkills</i>
	CIPD	<i>Future Skills Framework (Now titled 'Profession Map')</i>
	The Cutlers Company	<i>Better Learning, Better Worker</i>
	Cedefop	<i>The Great Divide: Digitalisation and Digital Skills Gap in The EU Workforce</i>
	Nesta	<i>The Future of Skills: Employment In 2030</i>

In this first section, reports, papers and grey literature are presented that map the potential changes in skill demands in the future. These reports present the skills, attitudes and competencies needed for certain economic sectors or localities, often in response to predicted structural changes to the labour market, such as automation. Secondly the literature with reference to *skills needed by employers*, are explored. These reports outline the skills needed by employers as young people transition to modern workplaces, often presented as employability skills and behaviour frameworks.

3.6 Future skills

These studies predict the skills and competencies needed to navigate and thrive in a future impacted by significant structural changes to the labour market, in particular the rise of automation, globalisation and environmental change. According to these reports, the world of work is changing – and some jobs are changing faster than others. According to these studies, soon we will only be as good as the skills we possess. But which skills are they, and how can we make sure we keep pace and the next generation of the leaders are equipped with them?

In a recent global study, the World Economic Forum shines a light on the skills needed in 2020 in response to their forecasts of mass automation and digitalisation. They argue that the Fourth Industrial Revolution will cause an explosion of new markets that will require a new set of skills for employment. The dataset that forms the basis of the report is the result of an extensive survey of chief HR officers and other senior talent and strategy executives from a total of 371 leading global employers, representing more than 13 million employees across nine broad industry sectors in 15 major developed and emerging economies and regional economic areas.

On average, by 2020, more than a third of the desired core skill sets of most occupations will be comprised of skills that are not yet considered crucial to the job today, according to our respondents.

(World Economic Forum, 2018: 6)

The authors argue that across nearly all industries, the impact of technological and other changes is shortening the shelf-life of employees' existing skill sets. The report outlines a number of skills that require a 'human touch' such as problem solving, critical thinking, creativity as being vitally important (World Economic Forum, 2018).

In their 2017 report, *The Future of skills: Employment in 2030*, researchers from Nesta map out how employment is likely to change in the future - including the implications for skills - and anticipates a number of new occupations. This study goes beyond considering the effects of automation, and accounts for all the major forces that will shape the UK's labour market, from climate change to population ageing. Combining the judgments of experts with machine learning, the study predicts the outlook for each occupation and identifies the skills that will protect workers against these forces of change. Amongst Nesta's predicted skills that will see an increase in demand, decision making, foreign languages and interpersonal skills such as teaching, perceptiveness and coordination are considered most likely. Organisation, decision making, creativity and active thinking are predicted to increase in importance due to an increasing demand for innovation and organisational change in relation to urbanisation, technology and

globalisation. Decision making will remain in demand and will continue to complement other skills across managerial, personal service and sales occupations. With increasing interconnectedness between countries and global markets via emerging technologies, foreign language skills are considered valuable due to their broad use across a range of occupations. Nesta considers an individual's ability to communicate, persuade and coordinate with peers, as well as teach others as essential skills that will withstand technological advancement and global occupational trends (Nesta, 2017).

The 2016 Leicester and Leicestershire Enterprise (LLEP) *Skills for the future* report serves as an example of more localised evaluation of future skills needs. Its regional report draws upon data from three main sources: employment forecasts, primary research with 161 employers based in the LLEP area and analysis of two UK employability skill surveys from 2014 and 2015. Among other skills, the report highlights that in the future employers will be increasingly interested in young people who can demonstrate commercial awareness, an entrepreneurial spirit, autonomy, an aptitude for project management and an understanding of e-commerce.

3.7 Skills needed for the workplace

3.7.1 Survey of employers

Further reports found during the literature search can be described as mapping the skills needed for *current* workplaces. Often reliant on large-scale surveys of employers, these reports explore the gaps in the UK labour market and highlight specific skills shortages in particular regions and sectors. In their 2014 report, *Impetus*, in partnership with the Young Foundation and the Social Research Unit at Dartington (SRU), explore the skills young people need and what makes the biggest difference to their work readiness. The authors conducted interviews with 20 UK employers, a literature review of existing employer surveys and reports, and an investigation into 22 international databases searching for programmes that targeted outcomes related to employability and work readiness. The report highlights 6 core skills young people need to

be ready for work and identifies the emerging, developing and established stages of building these employability skills. As previously noted, the authors conflate skills with competencies or attitudes needed for work. These 'skills' include: 'being self-aware, receptive, driven, self-assured, resilient and informed' (Young Foundation, 2014).

The Right Combination (2016) report, produced by CBI/Pearson, is a comprehensive survey of employers which - among other important factors - explores which skills employers looked for in school/college leavers and graduates. These skills included 'planning and organisation, research and using information, interpersonal, strategic and business thinking, communication, and leading and managing people'. In a subsequent report, the CBI

Skills Framework (2016), each skill is divided between four skill levels depending on the position of each employee, introducing new competencies and sub skills at each stage. For instance, the framework describes research and using information as the ability to use relevant information to inform decision making and problem solving. At the 'Advanced' and 'Expert' levels, employees are encouraged to adopt more creative and investigative skills in the form of proactively seeking, developing and disseminating new ideas to inform theirs and their colleagues work. CBI also published a companion *Behaviours Framework* which outlines 'collaborative, analytical, takes ownership, agile, commercial, innovative' as key behaviours needed for work (CBI, 2016).

Table 5: CBI Skills Framework (2016)

	Developing	Practicing	Advanced	Expert
Planning and organisation	<i>Meets deadlines</i>	<i>Maintains sufficient quality and organisation of work under time pressure</i>	<i>Can manage cross-functional workstreams effectively, utilising and organising resources from across the organisation</i>	<i>Strategically plans work to align with the external operating environment to get the best outcome for the business</i>
Research and using information	<i>Ensures information is accurate and up to date</i>	<i>Can use available internal resources, tools and systems to capture and extract information</i>	<i>Can robustly analyse complex information or data, drawing on the relevant expertise of self or others</i>	<i>Can draw out big picture trends from detailed, complex data.</i>
Interpersonal	<i>Demonstrates effective listening skills</i>	<i>Develops strong networks in their environment and beyond and uses these to support the work they do</i>	<i>Can manage and resolve conflict with and between individuals and groups</i>	<i>Creates and sustains value-adding strategic partnerships up to and including the highest levels of seniority</i>
Strategic and business thinking	<i>Can see the bigger picture and how their work impacts others</i>	<i>Understands how the CBI makes money and keeps up to date with commercial business</i>	<i>Plans strategically – scenario planning, anticipating potential future situations</i>	<i>Shapes effective corporate strategy, ensuring it is commercial, innovative and data driven</i>
Communication	<i>Can verbally articulate information clearly and succinctly</i>	<i>Tailors communications, written and oral, across the business and to the needs of different stakeholders</i>	<i>Ability to convey complex and multi-faceted information to a range of audiences simultaneously, keeping key messages front of line</i>	<i>Can speak and present to large audiences, delivering messages with impact and conviction</i>
Managing and leading others	<i>Is beginning to understand effective managerial styles and is aware of own style</i>	<i>Motivates a team to meet a common goal</i>	<i>Has a well-developed and consistent managerial style that flexes to support others to grow</i>	<i>Motivates the organisation toward high performance, ensuring all staff feel connected to the 'bigger picture'</i>

The literature also consistently highlights the importance of digital skills in gaining employment, and their demand is expected to rise. In light of technological advancements, many occupations even at entry level, now involve some sort of digital literacy. In the DfE's recent *Employer Skills Survey*, nearly one third of employers noted that basic digital skills were lacking in new recruits, with these deficiencies disproportionately affecting administrative and clerical roles (DfE and IFF Research, 2018).

Cedefop's *The Great Divide* report draws upon their 2017 European skills and jobs (ESJ) survey as well as previous studies by the European Commission and Eurostat into the rise of digitalisation within the European job market. The ESJ survey collected information on the level of IT skills required by employees in the EU. The authors report that growing technological advancements within the European job market continues to create a digital divide between employees with and without relevant IT skills. Cedefop's ESJ survey revealed that seven in ten adult employees in the EU need at least some fundamental IT level to perform their jobs. Among EU countries, the UK stands out as requiring relatively high percentage of adult employees with basic IT skills. UK workers in occupations that require relatively advanced IT skills enjoy an hourly earnings premium of 7-8%, relative to workers in jobs that need basic IT skills (Cedefop, 2017).

However, the pace and impact of this digitalisation of the workplace depends on a number of contextual factors. Namely, the sector or nature of the occupation. Geographical location is also a major influence, and access to fast, reliable and affordable digital infrastructure is an ongoing problem in the regions that could restrict economic opportunities (Healy, Nicholson & Gahan, 2017). More regionally specific studies found in the review include *Priorities for entry level digital skills needs in Greater London* (2016).

3.7.2 Skills Frameworks

The review of current literature also uncovered a number of skills frameworks aimed at schools and colleges. These frameworks outline the employability skills young people currently need as

they transition to the workplace. These frameworks also set out how these skills should be developed as part of the curriculum or extra-curricular activities.

These frameworks rely on evidence gathered from multiple stakeholders aside from employers, such as students, teachers and experts. D2N2 the Local Enterprise Partnership (LEP) for Derby, Derbyshire, Nottingham and Nottinghamshire, uses such a methodology. D2N2 commissioned the University of Derby and the Evolve Trust to develop an employability skills framework which reflects a shared language between employers and young people in the area that works within existing policy. The framework was designed through consultations with the local authorities, several multi-agency forums and experts in the field of employability and career management, as well as a survey of secondary schools in the D2N2 area. The framework aims to outline the ten key skills that every young person should achieve, provide a guide for action and self-evaluation, and help shape a strategy for employers, policy-makers and educational institutions to support achievement among young people. The framework outlines ten 'opportunities' young people should be able to develop with the help of 'enablers' such as their school or local youth network. Young people should be; 'self-motivated, self-assured, aspirational, informed, experienced, achieving, accountable, resilient, entrepreneurial and co-operative' (D2N2, 2016: 16). The report advises learning providers to help in the development of these skills by providing what are widely known as employer engagement activities; personal development courses, CV and interview workshops, careers education events, experiences of the workplace including conversations with employers and working people (D2N2, 2016).

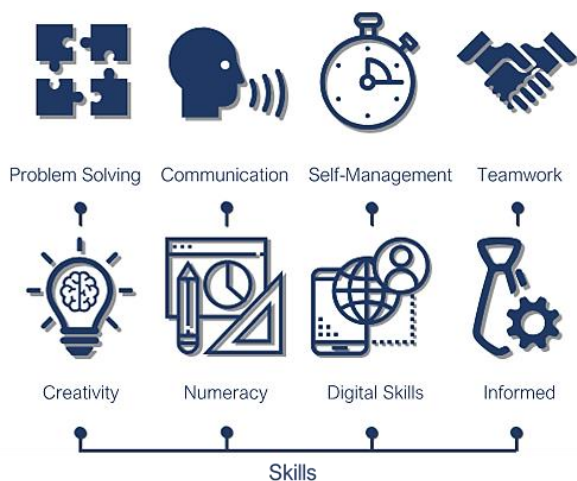
The CDI's 2015 careers framework was designed to help develop young people's skills and understanding of employability, enterprise, careers and the world of work in the absence of a national curriculum framework for careers, and employability education. The authors divide their 17 learning areas between self-development, learning about the world of work, and skill development and career management. Within self-development, the report identifies self-awareness,

self-determination and self-improvement as qualities that help boost self-efficacy and personal growth in young people. Such qualities allow young people to develop resilience, personal autonomy and reflective skills. In the skill development and career management section, the authors highlight the importance of developing problem solving, organisational and adaptability skills in preparation for employment (CDI, 2015).

In their 2017 report, Youth Employment UK aims to create a unified view of the wider employability skills contained in previous reports on the subject. In a similar vein to this review, the report investigated current literature exploring frameworks for employability skills. Through examination of literature and library searches, Youth Employment UK identified a wide range of sources exploring the issues behind employability skills. These skills were presented to three focus groups. All groups included representatives from business, education, policy, and the youth sector. Young people also attended each group session to offer their personal contributions and insights. The report shows the range of skills highlighted by all stakeholders which include team work, communication, problem solving, self-belief and self-management.

3.7.3 Consistencies in the skills and competencies found in the literature

Although there is some considerable variation within the definitions that have been produced in terms of the specific skills and attributes that are included, there is some commonality in the broad skills and competencies needed for the future and demanded by the 21st century labour market. The skills and competencies cited in 21 reports



published over the recent years are summarised in Table 6.

Given the glut of literature being published on employability skills needs and demands in recent years, it will come as no surprise that since the beginning of this project (and the rapid literature review) a number of large important employer surveys have been published. The DfE's 2018 *Employer Skills Survey*, is one in particular that warrants mentioning. The report outlines the specific skills that employers perceive to be lacking among their workforces. There are large overlaps in terms of what we have found in the literature, the report notes that employers feel; 'self-management skills, management and leadership skills and sales and customer skills' are most lacking in current staff. In terms of practical skills, they note businesses feel that 'operational skills, analytical skills and digital skills' are most acutely lacking when trying to recruit (DfE and IFF Research, 2018).

The CBI and Pearson also published the findings from their annual survey of employers just after the literature review for this project was completed. The report notes that employers felt that a young person's 'attitude to work' was most important when making the decision to hire. Attitudes such as resilience, enthusiasm and creativity were considered most important. More than four out of five employers rate this as one of three most important considerations (CBI and Pearson, 2018). Again, this report aligns with the findings gathered from our review of the literature. Notably that such school-leaver attributes represent more than simply 'employability skills'. Rather, they describe a range of skills, attributes, attitudes and competencies that have a relevance to the workplace as well higher education and wider family life.

EMPLOYERS PERSPECTIVE

– Findings from two focus groups

This section sets out key messages emerging from detailed discussion with more than 12 professionals with first-hand experience of recruitment in large and small enterprises across private, public and third sectors. The discussions centred on participants' personal experiences of recruiting young people and the employability skills located in the literature.

The following section does not aim to present every piece of feedback and comment from the focus group. Rather, it outlines where employers felt the employability skills garnered from the literature were of relevance to modern workplaces, to their recruitment practices and to the industries they represent. They were asked to comment on the broad skills or competencies that needed refinement, or to add examples of these skills or competencies to the ones emerging from the literature search. Finally, employers were asked to consider what they would expect new recruits from school to be able to demonstrate in the workplace (for example, in the case of communication this could be making presentations, writing emails or drafting reports). A full breakdown of each wider skill and workplace examples are presented in our 'Skills Grid' at the end of this chapter.

4.1 What is missing in the list of skills and competencies from the literature?

While there was considerable agreement about the comprehensive nature of the employability skills and competencies provided based on the literature, a small number of employers suggested that some important examples were missing from the literature.

Two respondents made some reference to 'commercial awareness' and 'service orientation' when thinking about young people being informed about the world of work. To these employers, there was a real need for young people to understand how the world of work actually works, and in particular the importance of external stakeholders, clients and customers:

"Although you have all of these sections on self-management and communication it's about being able to use those skills in a business sense. As a person in a business you are not only serving your own teams but also external stakeholders or customers. It may be obvious in those customers facing positions or sales-based roles, but even in HR roles or charity roles those stakeholders are still there, and young people need to have the skills."

CEO, Not-for-profit organisation.

One participant also observed that within 'service orientation' young people also needed to be aware, or have a basic understanding, of the core principles of how a business works. Table 6, the 'Skills Grid' hereafter, outlines the employability skills and competencies gathered from the literature, combined with examples of these skills

gathered from the literature *and* in our discussions with employers. The skills and competencies have been ordered based on the number of times the skill was referenced in the gathered literature combined with the weighting system (outlined the methodology chapter).

Table 6: 'Skills Grid'. Employability skills and competencies gathered from the literature, combined with suggested new examples by employers.

Wider skills	Examples
Problem solving	Preparation for solving a problem
Communication	Day-to-day communication (social skills for work)
	Writing skills
	Presentation skills
Self-management	Organisation
	Dress and behaviour
Teamwork	Involvement
	Support
	Collaboration
Creativity	Original thoughts and ideas
Numeracy	Estimation
	Deduction
Digital skills	Confident use of digital devices
	Digital responsibility
Informed (about the world of work)	Preparation for interviews
	Interview skills
	Understanding of job market
	Service orientation
Confidence	Leading teams and groups
	Decision making
Drive	Flexibility
	Enthusiasm
Resilience	Handle criticism
	Dealing with workloads
Reflection	People management
	Adaptability

4.2 How relevant are the skills and competencies gathered from the literature?

In general, employers agreed that creating a common language for employability skills was an important and worthwhile task. However, there was also agreement among the participants that it was important to highlight that these skills and competencies shouldn't be viewed in isolation, rather they should be seen as merging into one another.

"One thing that does emerge is that the skills merge in to one another. While it is useful to have them separated like this, it is worth noting that they often do not exist in isolation they slip and merge in to others."

Former Head of Apprenticeship and Recruitment - IT/Technology

Another noted that the competencies, gathered from the existing literature, usually develop as the result of the growth of employability skills:

"The behaviours are more things that you develop as you grow. These usually come with experience as a result of mastering the skills which are outlined above. If you think of confidence, what do you mean? But if you teach them conversation skills and interview or recruitment skills confidence comes about as a result."

HR Manager - HR and recruitment.

4.2.1 Skills and competencies relevant for finding work

There was considerable agreement across recruiters about where young people were distinctively and commonly weak, in comparison to older workers, when it came to applying for work. Participants noted poor skills in what might be termed job-seeking or recruitment skills (completing applications and presenting themselves interview). One noted that young

people should understand the relevance of employability skills and know how to demonstrate them in the recruitment process:

"It is important that young people are aware of how these behaviours or attitudes are formed, and when they have demonstrated them in the past, and being able to draw on real, concrete examples to make these more and more tangible for prospective employers."

Industry Talent Specialist & Apprenticeships - Telecommunications.

"When it comes to interviewing, it's worth thinking about where you've had that experience. If for example the job talks about presentation skills, then think about your involvement in drama. Whether that be in lessons or in school productions. You can use these experiences to show your confidence in performing and speaking in front of groups of your peers and strangers."

Former Head of Apprenticeship and Recruitment - IT/Technology.

Another noted that young people should know how to conduct themselves during an interview or at an assessment centre, and without this vital skill it was likely they would not be successful in their applications:

"We need to teach them to have positive body language, not slouching, giving good eye contact. We need emphasise the importance of the first seven seconds."

HR Manager - HR and recruitment.

All employers in the focus group remarked that in the modern workplaces being able to present ideas in both verbal and written forms was a vital part of being employable. When thinking about verbal communication, one participant noted that they test this skill within the recruitment process:

"On the recruitment side we always have had a 15-minute presentation as part of our recruitment process."

Applicants are given the topic beforehand. Not that they have to be fantastic at it, but we have to be able to see that with development they can really push on."

New Talent Manager - IT/Technology.

When asked about the relevance of teamwork skills, a number of HR experts in the group noted that this skill is tested and evaluated at the recruitment stage. One HR team member for a leading technology company highlighted that assessment centres are increasingly centred around teamwork testing activities:

"Things we have always included, in both this organisation and my previous one, is when interviewing or recruiting anyone in to our business is a team-building exercise. Usually a minimum of five young people given a task around Lego or something similar. We just observe how they work together, do they try and diffuse bickering for example, or sit in the background."

New Talent Manager - IT/Technology.

For many employers, confidence was a key competency young people needed to successfully negotiate the transition from schooling to work. When pressed for specific examples, a common refrain amongst attendees was how vital confidence was at the interview and recruitment stages:

"This doesn't mean that they're cocky, or they know it all or anything like that. It's more a self-assured idea of 'I can do this'. So that little bit of self-esteem really that they need all the way through, from the application to the interview to the first few weeks and months of starting a job."

**Head of Sustainability -
Manufacturing.**

4.2.2 Skills and competencies relevant for thriving in work

Throughout the focus groups there was a strong agreement that having resilience was a key employability skill when it comes to thriving in work, especially for school leavers who may have a lack of relevant work experience. For one employer, a common example related to being able to explain why you may have missed a deadline:

"It's critical to be able to compromise and realise that some people may not be able to deliver, especially in supply chain roles, and be able to respond to that well and reasonably."

**Apprenticeship, Development
Manager - Property and
Construction.**

Another noted that resilience was vital in being able to deal with the inevitable mistakes that a new recruit makes in a business:

"During the transition from school to work and while you're at work you are going to blunder, and it is going to be embarrassing, and people are going to point it out to you. It's important to be able to have a thick enough skin not to quit."

**Industry Talent Specialist &
Apprenticeships -
Telecommunications.**

While another employer mentioned that confidence links very strongly with resilience resonating with an earlier comment around interconnectivity of the skills and competencies:

"I guess this comes in to resilience as well, but having the confidence not to get flustered when something alien or new gets thrown your way."

**Apprenticeship Development
Manager - Property and
Construction.**

Focus group participants felt young people often lack vision and drive. The old adage of 'recruit for attitude and train the skill' was resonant.

"A lot of the times when you are hiring someone, you aren't necessarily

hiring them on their CV or their work history, it's more to do with how driven and motivated they are. Not only to do a good job but also to learn."

HR Manager - HR and recruitment.

"It's true [young people need] motivation, being engaged, attitude, aptitude, energy, passion, drive, the desire to succeed, career-driven."

Director, Corporate & Business - Accountancy, banking and finance.

To a number of employers, digital skills were vital in 'kicking on' in a business, as one respondent noted. Despite being digital natives, employers highlighted that young people must be able to use basic software and technologies such as Microsoft Office to make themselves employable. As one large communications employer put it:

"We know that kind of on the younger end we have 'digital natives', people who've grown up with these skills and it's real second nature to them and is immensely valuable. But that technology is not going to be static. So there's going to be a real need to not only understand what's on the horizon but also be prepared to train and learn this new technology, especially in the light of growing automation."

Industry Talent Specialist & Apprenticeships - Telecommunications.

Another mentioned that written communication was a vital skill for all new recruits, not only those in sales teams. Yet, the quality of written English was not good enough among school leavers.

"GCSE English is not good enough, it's just plain not good enough. When we have young people coming in they can't write, they just can't. This also applies then to grads who might have gone on to do other stuff but they put a report together for a client, a basic report, and the English is appalling. Disappointingly it's as simple as that."

Head of Sustainability - Manufacturing.

4.3 What do employability skills look like in the workplace?

This section collates the findings from the second focus group with employers. Attendees were asked to consider the updated list of employability skills, gathered from the literature and the first focus group, and give real-life examples of the specific tasks for each skill and competencies within their workplaces.

4.3.1 Problem solving

In analysing and coding the responses, it became clear that problem solving was seen by the attendees in two distinct stages. When thinking about the skills related to problem solving, employers often saw these related to 'preparing to solve a problem' and 'solving a problem'. One employer highlighted that before beginning to solve a problem, employees needed to be able to devise an action plan or to-do list with actionable steps:

"Being able to devise an action plan is absolutely vital."

Former Head of Apprenticeship and Recruitment - IT/Technology.

Similarly, two attendees mentioned that new recruits with adequate problem solving or decision-making skills should be able to separate important information from the data in order to solve a problem. As one employer put it:

"You've got to separate the noise from the facts and pick out the salient facts or information."

Apprenticeship Development Manager, Apprenticeship Development Manager - Property and Construction.

When pressed further on what problem solving looked like in the workplace, a number of employers noted that taking responsibility is vital. According to one employer, often younger recruits have a habit of shirking away from the task of solving problems, which can often result in poor productivity in the workplace:

"You've got to 'own the problem' and take responsibility. This is a problem we've had with our new intake, not

looking to take on the problems which can cause real problems or inefficiencies”

**Head of Sustainability -
Manufacturing.**

Two respondents felt however that the Skills Grid (see Table 7) should include some reference to ‘independent thinking’ or solving problems independently. They noted that an ability to act independently to make a decision, whether that be on a small task or a larger project, was key in the modern workplace:

“The idea of how you fit within an organisation and that’s kind of one of the top things for me. When you ask, ‘what is it that you really need?’ The absolute critical thing is reasonable decision making and the ability to come straight in and act independently.”

CEO - Not-for-profit organisation.

4.3.2 Communication

When asked about the tasks and functional skills related to communication, a number of attendees noted that day-to-day social skills were vitally important. A number of employers noted that new recruits are expected to be able to have a work-related conversation with senior members of staff and as one employer put it, ‘actively drive these conversations’. One attendee representing a technology company highlighted that this is also important when dealing with stakeholders as well as colleagues:

“Be inquisitive! When you ask follow-up questions and listen actively. It makes a huge difference in interacting with colleagues and stakeholders.”

Former Head of Apprenticeship and Recruitment - IT/Technology.

Given the exponential growth and usage of online chat applications such as WhatsApp, a number of focus group members agreed that in their experience the current generation of employees have lost the art or ability to speak on the

telephone. Yet, this is still a vital skill for all employees. As one employer put it:

“When speaking on the phone or to a co-worker every person working for us should be able to speak on the phone, because not many can these days! We used to have to train them. Train them to speak on the phone.”

**Head of Sustainability -
Manufacturing.**

A common refrain from employers in terms of what ‘communication’ actually looks like in the workplace related to written accuracy and the tone used in emails and reports.

“Check spelling and grammar when emailing!”.

**Apprenticeship Development
Manager, Apprenticeship
Development Manager - Property
and Construction.**

“Understanding business culture is vital, using the right language and style”.

New Talent Manager - IT/Technology.

As was perhaps expected, the focus group attendees frequently mentioned presentation skills when asked about detailed functions of communication. Specifically, they noted that new recruits should be able to share ideas clearly when presenting, making no presumptions about prior knowledge.

“It’s not just good enough to understand the idea you’re presenting, it’s about being able to speak about in simple terms for an audience that may not understand the technical language.”

**Head of Organisational Capability
and Talent - Transport and Logistics.**

4.3.3 Self-management

Focus group attendees were quick to identify self-management as an important employability skill, but somewhat struggled to identify tangible workplace examples. When asked directly, two employers mentioned timeliness and being able to organise time as a key feature of self-management.

"It's important that the young person understands the repercussions of lateness and being on time, organising your own diary is key for this."

Apprenticeship Development Manager, Apprenticeship Development Manager - Property and Construction.

"Managing expectations is really important for this, not letting people down because you haven't informed them you're going to be late on something."

New Talent Manager - IT/Technology.

Another agreed that self-management was a useful way of describing how young people need to know when to modify their attitudes and behaviour for the workplace. They used an example of dress code to exemplify this notion:

"Having the ability to think actually when it is appropriate to come in to work wearing jeans and a t-shirt and when it is not. But some days if you're going out to meet a stakeholder you need to know when to dress for the occasion."

CEO - Not-for-profit organisation.

4.3.4 Teamwork

There was considerable interest and numerous examples given when attendees were asked what teamwork looked like in modern workplaces. A number of employers noted that teamwork often took the form of being actively involved in group work, especially in meetings:

"You're there for your individual knowledge, background or specialism - get involved!"

Head of Sustainability - Manufacturing.

"Actively participate in a group project, don't rely on your colleagues to pick up the slack!"

New Talent Manager - IT/Technology.

Moreover, there was repeated use of the word collaboration to describe teamwork in a working

environment. When asked for specific examples, one employer noted employees are expected to work closely with colleagues around them, even those with opinions with which they did not necessarily:

"Expect differences of opinion. Not everyone has to agree but listen to their opinion."

Apprenticeship Development Manager - Property and Construction.

4.3.5 Creativity

Attendees noted that often their organisations hired school leavers or younger recruits because they could think 'outside of the box' and offered a 'fresh perspective' that positively impacted the business. Several employers highlighted that new employees should be able to creatively draw on other experiences and their own unique perspectives to solve problems and come up with new ways of working. One employer framed this as a set of questions to ask a prospective new employee:

"You're new to the organisation - how would you go about completing this objective? What makes you different from your work colleagues? Can you use these differences to design a new method or approach?"

Head of Sustainability - Manufacturing.

4.3.6 Numeracy

As this report attempts to be as general and applicable as possible, the recommendations and skills need to be as universally attainable for all students. Employers were therefore asked to give examples of what numeracy skills would look like in practice but were limited to those that can be developed and taught within the curriculum at a basic level or through extra-curricular activities, rather than advanced numeracy skills. Despite the differences in their sectors, employers consistently noted that they expected new recruits to be able to draw basic conclusions from simple data or figures:

"Being able to estimate. Understanding when a number makes sense!"

New Talent Manager - IT/Technology.

One representative from a large manufacturing organisation mentioned that numeracy skills often manifested themselves in simply being able to estimate and understand whether a figure makes sense.

"They've got to be able to tell if a number makes sense, part of this is knowing the repercussions if a figure or calculation is wrong."

Head of Sustainability - Manufacturing.

One property and construction employer highlighted that basic financial planning and budgeting was a key numeracy skill that their organisation expected of every younger employee:

"Numbers and finance play a part in every job, it's important to be comfortable planning basic budgets, often using Excel."

Apprenticeship Development Manager - Property and Construction.

4.3.7 Digital skills

When asked for examples of what digital skills looked like in the workplace, the majority of attendees mentioned the proficient use of a PC or Mac, and an ability to use basic software such as Microsoft Office. Without these, it was argued, new recruits would struggle to get to the interview stages of an application. As one attendee put it:

"Excel, Word and PowerPoint are all absolute necessities."

Apprenticeship Development Manager - Property and Construction.

Participants also frequently mentioned digital responsibility and digital security in relation to digital skills. One attendee mentioned the need to be responsible on social media, expressing concerns over employees' private postings which can have a real impact on the reputation of the business:

"Etiquette on social media and LinkedIn can have a real impact on the business, so it's important they can manage that."

New Talent Manager - IT/Technology.

Another noted that digital skills in their workplace revolved around digital security and awareness of data protection laws:

"This has become especially important with the new GDPR stuff coming in. They should have a grasp of data protection and sharing sensitive info."

Head of Organisational Capability and Talent - Transport and Logistics.

4.3.8 Informed (about the world of work)

For schools looking to prepare young people to compete in a demanding, competitive labour market, commentators argued recruitment skills should be given priority. When quizzed on what these would look like as practical real-life tasks or skills, participants broke down their responses into two distinct stages or areas; preparation for the interview and skills during the interview. Three attendees highlighted that they expect new recruits to have done some research on the company or organisation and tailor their application to reflect this research:

"Explain why you are interested in the company, tailor your skills and experiences to fit the job description."

Head of Sustainability - Manufacturing.

Another noted that in light of new recruitment processes, such as assessment centres and graded group activities, applicants should prepare themselves for such tasks rather than expecting a traditional face to face interview:

"Recently there has been a real shift from CV and interview-based recruitment processes to group assessments and assessment days. It's important young people are aware of these and prepare themselves."

Head of Organisational Capability and Talent - Transport and Logistics.

At the interview or during the assessment day itself, it was argued that applicants should be able to demonstrate and discuss the employability skills they have gathered through their experiences at school or through extra-curricular activities.

"Often these young people have got a whole host of skills they just don't talk about until they're really prompted."

New Talent Manager - IT/Technology.

"It's important that they have experiences and examples to back up words."

**Head of Sustainability -
Manufacturing.**

Echoing findings from the first focus group, commercial awareness manifested itself in young people appreciating the importance of external stakeholders, clients and customers, prioritising their needs and demands:

"They are always going to be working with clients and stakeholders. They must have that savvy, that commercial savvy."

Former Head of Apprenticeship and Recruitment - IT/Technology.

"They must have an idea of how their interactions and dealings with customers can have a real knock on effect for the business."

**Head of Organisational Capability
and Talent - Transport and Logistics.**

4.3.9 Confidence

As was perhaps expected, finding concrete examples or workplace tasks related to the employability competencies was slightly more difficult for participants. Examples such as speaking up during meetings, taking appropriate risks and voicing opinions that may be at odds with senior members of staff came up frequently as overt examples of confidence.

"Be comfortable asking for help, or voicing a view or opinion."

New Talent Manager - IT/Technology.

4.3.10 Drive

When asked for examples of showing drive in the workplace, a number of participants mentioned that driven young people often show passion or interest in the job or sector. As one IT employer put it, young people should:

"Show that you are enthusiastic about the sector in general, show this in your conversations and the way you work. People will notice!"

**Apprenticeship Development
Manager - Property and
Construction.**

Another participant stated drive often manifested itself as volunteering for opportunities to learn new skills or participate in projects:

"Volunteer to learn new things, participate whenever the opportunity presents itself."

Former Head of Apprenticeship and Recruitment - IT/Technology.

Three further participants tied drive in with examples of dedication and flexibility. One participant from the manufacturing sector gave an example of staying late to complete projects:

"You shouldn't have to bend over backwards, but new recruits, especially the younger ones should be willing to stay an extra 10 minutes if a project is close to deadline. That sort of thing."

**Head of Sustainability -
Manufacturing.**

4.3.11 Resilience

Focus group participants often gave workplace examples of resilience in the context of the relationships with colleagues and senior members of staff. A common example given by the group was the ability to accept and handle feedback and criticism, especially as a new and relatively inexperienced member of staff.

"Understand that feedback is not a criticism of you or your work, it's a chance to improve your way of

working". **New Talent Manager - IT/Technology.**

One employer referenced the ability to push on despite criticism as an example of resilience:

"Don't give up or sulk. Failure is a learning experience, take it as such".

Head of Organisational Capability and Talent - Transport and Logistics.

4.3.12 Reflection

When asked for examples of what reflection, or being reflective, looked like in practice, employers again often gave examples related to the actions or behaviour of others. Three participants mentioned examples that could be categorised under the umbrella of people management. These examples often revolved around dealing with conflict and understanding the emotions and situations of others when working.

"Understanding human emotions, this is a real 'human skill' in the light of impending automation".

Head of Sustainability - Manufacturing.

Another employer remarked that in their experience reflection could also be conflated with elements of adaptability. When asked what this would look like in practice, they stated that this was often demonstrated by new recruits in being able to act on feedback and criticism given by colleagues, and in doing so changing their working practices and behaviour:

"I would add adaptability to this framework, it's something you don't have at the moment. If you are not able to adapt to the environment you are in then you'll struggle. Confidence and the others may be more or less important depending on the role or sector, but being able to be reflective and adapt is crucial for me."

Apprenticeship Development Manager, Property and Construction.

Taken together, the findings from both focus groups help to validate and give further detail to the employability skills and competencies gathered from the literature. Attendees made some important remarks on how the 'Skills Grid' (see Table 7 below) should be seen and interpreted, namely that the skills should be seen as interdependent. Put another way, they should be seen as merging into one another, with certain competencies and skills growing and developing as other skills grow. As outlined by Fettes et al (2018) and employers in our focus groups, these skills and competencies should be seen as being supported by meta-cognitive skills. This 'know how' helps young people to not only develop these skills, but re-contextualise them and effectively apply them to new situations, tasks and problems.

Employers highlighted that the skills and competencies gathered from the literature were both highly relevant and necessary; when young people are in the process of finding work, as well as when those young people thrive and grow once they are in a job. Table 7 presents a snapshot of the findings from the discussions with employers.

The next section of the report seeks to understand whether teachers believe these important skills, demanded by employers, summarised in the Skills Grid below, are developed through different school environments.

Table 7: 'Skills Grid' - Wider skills, sub-skills and workplace examples gathered from the literature combined with findings from both focus groups.

Skill/Competency		Workplace examples
Problem solving	Preparing to solve a problem	Devise an action plan
		Extract important information from data
		Think independently about smaller and larger tasks
		Articulate different areas of a problem in order to solve it
Communication	Day-to-day communication (social skills)	Hold a work-related conversation and drive it
		Telephone communication
	Writing skills	Accuracy in emails and reports
		Using clear and appropriate language and tone
	Presentation skills	Making presentations engaging
Self-management	Organisation	Sharing information in simple terms when describing complex ideas
		Being punctual and organising time
	Dress and behaviour	Prioritising tasks and projects depending on deadlines
		Dressing appropriately for different working situations (e.g. external stakeholder meetings)
Teamwork	Involvement	Actively contribute in meetings and on group projects
	Support	Support colleagues, both those above and below you in the hierarchy
	Collaborate	Understand and appreciate other styles of working
		Invite colleagues to contribute from other departments and teams
Creativity	Original thoughts and ideas	Coming up with new ideas and strategies to solve problems
		Being open minded to new approaches
Numeracy	Deduction	Drawing conclusions from facts and figures
	Estimation	Understanding basic statistics
	Finance skills	Basic financial planning and budgeting
Digital skills	Confident use of digital devices	Proficient in Microsoft office
	Digital responsibility	Basic understanding of data protection and data security
		Responsible use of social media
Informed	Preparation for interviews	Tailor applications for a particular job
		Prepare for different forms of application and interview
		Research the company or organisation
	Interview skills	Know your skills and competencies and how to articulate them with examples
		Confident body language
	Service orientation	Putting the needs of stakeholders and customers first
Confidence	Decision making	Able to voice own opinion to colleagues and senior staff members
		Taking risks when appropriate
Drive	Leadership	Able to lead a project or task
	Enthusiasm	Outwardly show passion
		Volunteer for opportunities
Resilience	Flexibility	Flexible with the demands of the business
		Handle criticism in a professional manner
		Does not panic when a difficult situation arises
Reflection	People Management	Understand emotions and situations of colleagues
		Dealing with conflicts between colleagues
	Adaptability	Accept feedback and change working practices based on that feedback
		Able and willing to work in different environments

FINDINGS FROM THE TEACHERS' SURVEY

This stage of the study set out to explore how schools are fostering the skills and competencies in the Skills Grid. An online survey explored the perceptions of 626 teachers across England, it asked where the skills and competencies - found within the literature and through conversations with employers - were being developed in the school environment and how. Respondents were given seven school-based situations or environments to choose from:

- through class work;
- through homework;
- through assessment⁴;
- in other lessons e.g. tutor time;
- through extra-curricular activities;
- 'in other activities throughout the day e.g. assembly;
- through interaction with peers;
- and a final, 'other' option

Table 8: % of responses to where respondents felt each skill and competency was being developed (n=626)

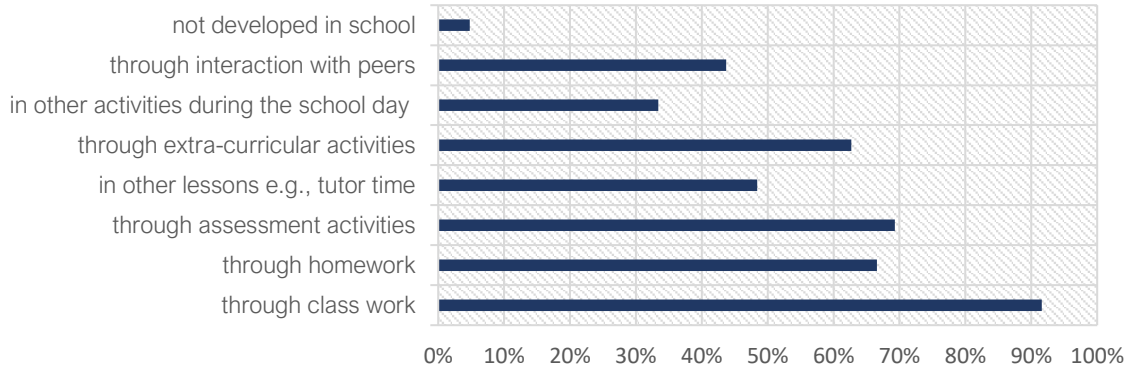
	through class work	through homework	through assessment activities	in other lessons	through extra-curricular activities	in other activities during the school day	through interaction with peers	not developed in school
Problem solving	92%	67%	69%	48%	63%	33%	44%	5%
Communication	92%	30%	45%	75%	75%	52%	79%	1%
Self-management	71%	81%	57%	42%	55%	38%	35%	7%
Teamwork	90%	17%	29%	62%	84%	44%	65%	3%
Creativity	88%	66%	43%	46%	67%	31%	39%	6%
Numeracy skills (outside of maths lessons)	66%	41%	36%	43%	34%	19%	14%	16%
Digital Skills	64%	62%	21%	21%	42%	17%	23%	18%
Informed	29%	8%	5%	77%	37%	39%	17%	12%
Confidence	79%	46%	52%	65%	75%	51%	57%	9%
Drive	67%	45%	52%	38%	56%	28%	29%	16%
Resilience	74%	50%	55%	52%	59%	40%	39%	14%
Reflection	86%	52%	68%	53%	30%	30%	33%	5%

⁴ Teachers were asked to consider 'through assessment' as limited to examinations and revising for them, rather than class-based assessments.

5.1 Analysis of the teachers' survey: where schools are developing skills?

5.1.1 Problem solving

Figure 3: % of responses to where respondents felt problem solving was being developed (n=622)



92% of respondents indicated that problem solving skills were developed most through class work. Just under half of these respondents noted this took place in English lessons, often related to deciding which argument to pursue or which evidence or passages within texts to draw on. Around 15% of these respondents noted that problem solving was developed within science lessons, often related to practical elements of their work. Maths or design and technology teachers (subjects where you would expect problem solving to be most prominent) failed to mention 'problem solving' in the same volume. Though this may be because maths teaches problem solving explicitly, so teachers felt they did not need to mention it.

Two thirds of teachers indicated that this skill was developed 'through homework'. Practicing exam questions or making decisions about homework independent of any assistance from teachers were examples of improving problem solving and decision making.

"Students may be given a task to do in class or at home where they have to solve a problem or decide what resources would be best to use to help them answer a question; in Science we may have investigations where students need to carry out a practical to answer a question." (Science teacher, East of England).

69% of the respondents thought that assessment activities can help young people to grow some

elements of decision making and problem solving. Among these respondents, maths and science teachers believed that the topics covered in their subjects helped to build reasoning and problem solving over time, notably through making judgements and coming up with solutions based on research and data. One Science teacher highlighted:

"My subject encourages problem solving as a specific skill. There are also many areas of school life where they have decisions to make e.g. how to behave." (Science teacher, North West)

Enterprise activities and work-related learning activities were also mentioned in written examples of respondents who believed extra-curricular activities were helpful in developing problem solving and decision making. In addition, students make decisions on a number of occasions throughout the day but whether they are aware how this is helping their reasoning and problem solving is the matter.

Just over 5% of teachers surveyed indicated that problem solving was 'not developed in school'. The major issue identified was lack of time and the growing emphasis on exams. Due to the pressure of exam results, most teachers felt that there was too much emphasis on rote learning so that students only grasped course material and not independent thinking or problem-solving skills. As one teacher explained:

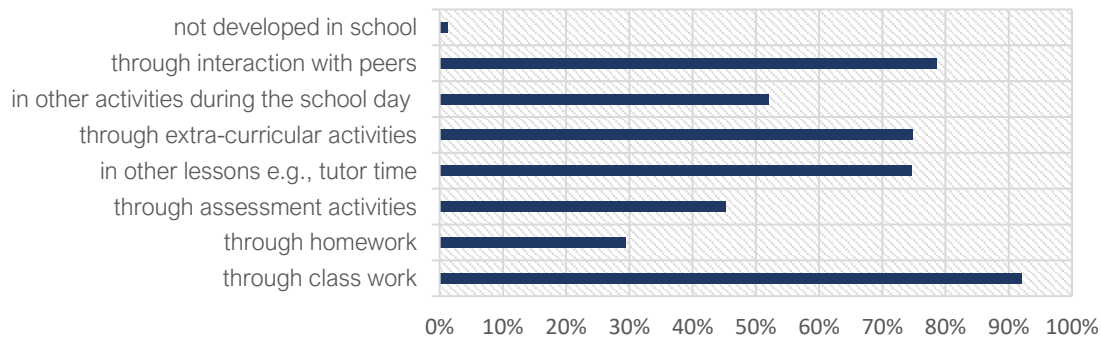
"... no time as everything in teaching now is results driven so many schools, including my own, focus on grades. This means that it has become almost impossible to build activities into lessons that would allow for these skills to be developed and also student enter secondary school either without these skills or they are

no longer able to develop them as we are going back to teaching by rote just to get through the course material. More time and more extra-curricular focus would allow these skills to be developed which would probably enhance students love of learning." (Health and Social Care teacher, London)



5.1.2 Communication

Figure 4: % of responses to where respondents felt communication was being developed (n=624)



As Figure 4 shows, 92% of teachers indicated that communication skills were developed ‘through class work’. The results are similar when looking at the role of the respondents, as well as the subjects they taught. Developing verbal communication skills was particularly common through either whole-class or small group activities. One third of teachers who felt students can develop communication skills ‘through class work’ referred to giving presentations in class as a key development area.

“We actively involve students and challenge them to develop their skills in oral and written communication throughout the curriculum. In my subject particularly, we emphasis presenting and debating skills, constructing clear, written arguments and writing detailed explanations. Our A-level in particular requires a high level of written communication.”
(Religious studies teacher, South West)

When asked for examples of how communication was developed through assessments, a number of respondents noted that students develop their written communication skills by improving their essay writing as part of formal exams. A small cohort of teachers believed students developed their communication skills by explaining their workings during science or maths exams. Students often lose marks in exams if they have not shown how they came to the answer, as one teacher noted:

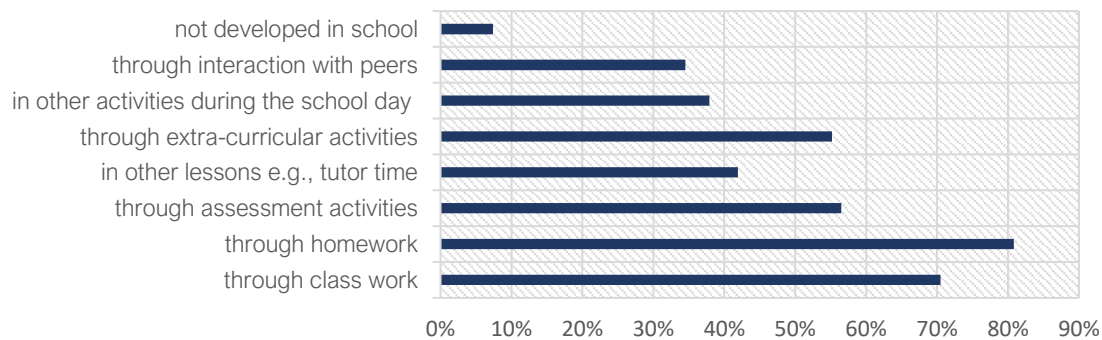
“Following assessments, I give them feedback and show them how to communicate their answer in a better way to achieve full marks in a question, as specified by the mark scheme from the exam board. This is particularly true in angle problems where the omission of one word in giving reasons for their calculation can adversely impact their mark.”
(Maths teacher, North West).

Just over 1% of teachers believed communication is not being developed through school. These respondents felt that communication was less of a priority in the curriculum. One respondent felt that teachers did not receive adequate training in developing communication and discussion techniques. Another respondent felt that their school was missing an opportunity to develop digital communication skills.

*“Personally, I allow for group discussion. I have students ask their partner, then their table before finally asking me for assistance. They can discuss ideas they have about the work. I *used* to do team tasks, but when the curriculum changed we were told to work from the textbook, so I stopped doing them. Personally, I hate it as that was a fab way for them to develop. I know others in the department who make their students work in silence 100% of the time, so I know that this is not consistent within the school.”* **(Maths teacher, London).**

5.1.3 Self-management

Figure 5: % of responses to where respondents felt self-management was being developed (n=620)



Teachers were asked to identify where self-management skills (organisation, time management, dress and behaviours) were developed in the school environment. The majority of the teachers in this sample believed self-management was best developed through homework. The most important emerging function of self-management from analysis of the written examples was time management. 40% of the written comments for both respondents who selected class work and homework referred to the management of time as examples of fostering this skill. When talking about class work, teachers reported that young people learn more about self-management by organising projects, planning their time and by working independently.

"Taking responsibility for one's learning requires self-management. Any situation where a student has to take responsibility without being 'spoon fed' requires self-management." (Maths teacher, East Midlands).

A number of teachers also felt tutor time gave students an opportunity to develop their self-management skills, particularly during activities where they have the chance to ask questions and be mentored.

"Self-management is mainly done in tutor time where I speak to the pupils about reflecting on their actions and about their expectations of themselves." (Science curriculum leader, West Midlands).

Additionally, there was a perception among teachers that extra-curricular activities were highly beneficial in developing self-management skills:

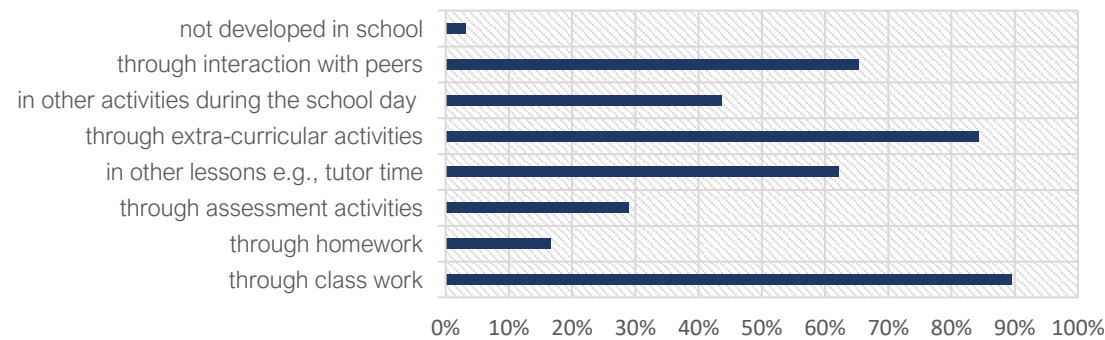
"Management of time during the week between studies and extra-curricular activities both in and out of school; organising fundraising activities; active learning and team building activities." (Maths teacher, South East).

Self-management skills can be also gained through interaction with peers and throughout the day, respondents said. This includes respecting peers, managing emotions, conducting appropriate behaviour, punctuality, managing group conflict and working with other pupils that they may not get along with. Approximately 7% of respondents felt that self-management was not developed in school. One of these respondents felt that the pressure on teachers to achieve grades meant that students were given too much assistance in completing their work. Of the teachers who felt self-management was not developed in school, the majority said this was due to the constricted curriculum.

"Students are not given the space to organise themselves with the pressure on SLT to drive up grades, which they then pass on to subject teachers. Students are not allowed to fail." (Design and Technology teacher, South West)

5.1.4 Teamwork

Figure 6: % of responses to where respondents felt teamwork was being developed (n=624)



Teachers noted that teamwork, like other skills in the grid, was mostly developed through class work. 57% of these respondents mentioned group or paired work as a helpful way of working on this skill. Examples given included tasks such as giving pupils the opportunity to delegate roles and responsibilities amongst themselves. Science teachers referred to teamwork in class more than any other subject area, making up 23% of written responses. As explained by several respondents, this is likely due to the prevalence of practical experiments and group-based projects in science classes.

As was perhaps expected, two thirds of teachers felt interaction with peers was key to developing teamwork. A common refrain among these teachers was that students often build teamwork skills through peer reviewing and group revision in preparation for exams and coursework. In addition, two respondents mentioned student mentoring activities.

"Pupils are encouraged to engage positively with their peers and to support each other to come up with solutions to problems. They learn how to lead or participate in a team and they learn that working with

others is important. This is good preparation for the world of work."
(Computer science teacher, London).

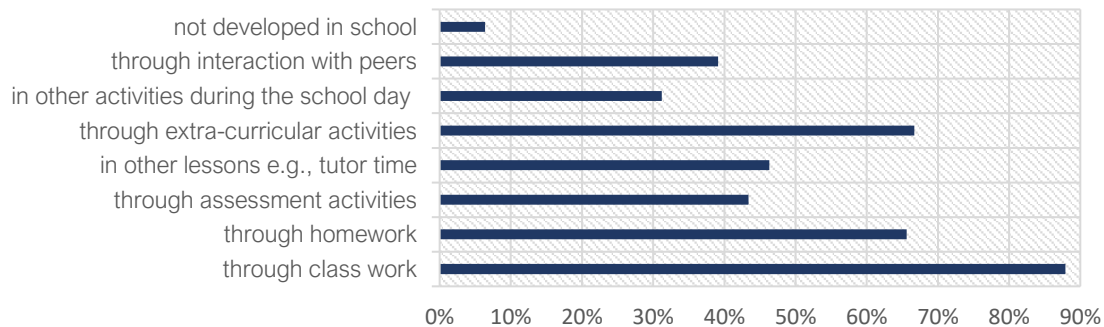
With most school-linked extra-curricular activities revolving around sports, it comes as no surprise that 84% of teachers felt these were useful in developing teamwork skills. 45.8% of respondents who believed so, gave examples of team-based 'sports' activities such as football, rugby and rowing.

When comparing the written examples by school type, a greater majority of independent school teachers highlighted that extra-curricular activities were beneficial for building teamwork skills in students compared to their colleagues from maintained schools and academies. A number of independent school teachers referenced team sports or activities that are rarely provided in maintained schools and academies (Independent Schools Council, 2016):

"I also coach rowing which is, arguably, the ultimate team sport: it's impossible to "do your own thing" in a crew boat and expect that boat to go fast!" (Geography teacher, West Midlands).

5.1.5 Creativity

Figure 7: % of responses to where respondents felt creativity was being developed (n=622)



When thinking about developing creativity within schools, 15% of the teachers felt writing can contribute towards its development. Teachers of Design and Technology also believed tasks such as creating a project newspaper, designing posters and writing diary entries were particularly helpful for young people. One teacher gave an example of the relationship between creative thinking and problem solving:

'Drama, music, art and design tech allow the students to work on their thinking skills as they must solve problems and think carefully about the work they need to produce to meet the criteria set by staff' (Drama teacher and senior leader, North West).

39% of written responses mentioned either setting 'competitions' or 'challenges' in their tutor groups or inter-house competitions. 22% of written responses discussed holding enterprise and career-related learning activities in their tutor groups of which 13% were career teachers/advisors. A Maths teacher from Manchester explained that they set up tutor time challenges such as designing logos for new school badges, poster competitions and Christmas card competitions.

"In tutor time we have many activities that are creative such as designing logos for new school badges, poster competitions, Christmas card competitions etc. My school also took part in a competition to design a better entrance to the cycle path that runs behind our school to make it safer and more attractive to students

and local residents" (Maths teacher, London).

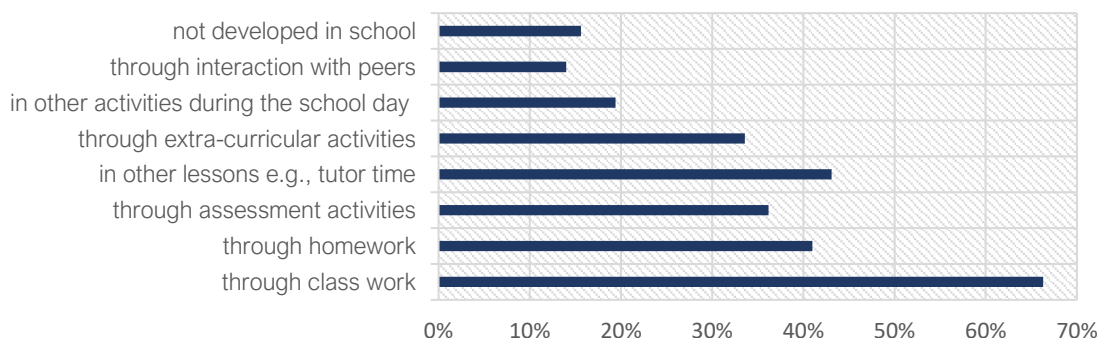
Of the teachers who felt creativity was most often developed through extra-curricular activities, a third discussed art-related activities as a means of developing creative thinking. One Science teacher from Lincolnshire discussed their school providing an opportunity for students to design a mural to cover their lunchroom wall. One fifth of the respondents also referred to extra-curricular activities relating to drama, dance and music and their usefulness for the development of creativity. In addition, they believed that extra-curricular activities were helpful in building creativity as it provided an opportunity for students to experience something new, taking students out of their comfort zone and creating something was seen as especially effective.

"Depending on the subject and the teacher, pupils may be asked to think creatively about a topic. However, creativity is disappearing from the curriculum due to GCSE pressures on pupils and teachers alike. This is one area that could be focused on more in schools." (English teacher, London).

only 6% of the sample felt that creativity is not being developed in school and the analysis of the written comments shed light as to why they think this is the case. These teachers believed creative thinking was either in decline, or being removed, from teaching in schools because of changes to the curriculum; a greater focus on examinations has affected this trend. Some teachers also felt that students were resistant to opportunities to develop creative thinking and would rather be told what to do.

5.1.6 Numeracy

Figure 8: % of responses to where respondents felt numeracy was being developed (n=608)



Teachers were asked to comment on where numeracy skills were developed aside from the routine Maths lessons. Two thirds of respondents felt that numeracy was developed most 'through class work'. Teachers' written examples were analysed to illustrate tasks and functions associated with growing numeracy skills. Table 9

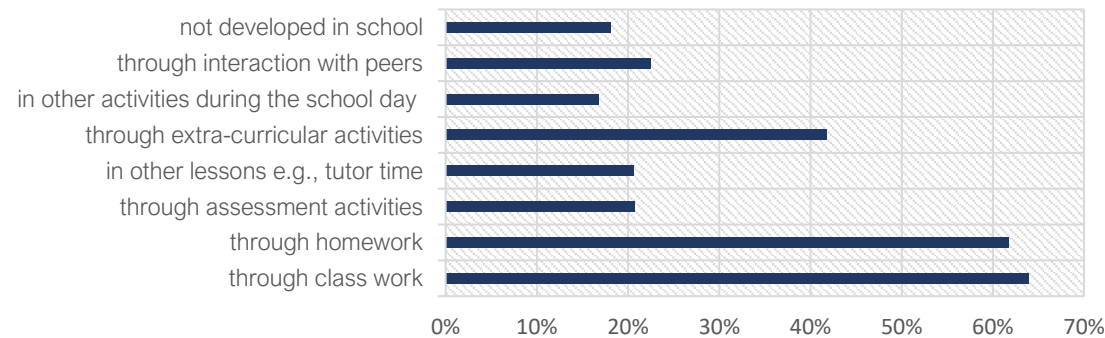
shows the result. 24% of examples linked numeracy skills to science. Perhaps unsurprising, these respondents frequently discussed solving equations, measurements and data. Written responses which referred to computing classes as a place to nurture numerical skills followed a similar pattern, mentioning coding, data and graphs.

Table 9: % of respondents that mentioned a subject area in their written response to 'numeracy outside of maths lessons' (n=82)

	Tasks in class, homework and assessment	Written examples
Science	<i>Solving equations, measurements and handling data</i>	<i>"Microscopy in science, homework activities, standard form in science and calculations in science all related to GCSE and careers in science (Science teacher, East of England).</i>
PSHE	<i>Finance, budgeting and enterprise activities</i>	<i>"In PSHE students might work out the number of units of alcohol consumed." (Citizenship curriculum leader, London).</i>
Modern Foreign Languages (MFL)	<i>Surveys and mathematical equations</i>	<i>"Pupils can be encouraged to read a longer text in French which may contain statistical information, e.g. a survey conducted amongst young people may reveal the issues that young people feel strongly about." (MFL curriculum leader, North West).</i>
Computing	<i>Coding, data analysis and working with graphs</i>	<i>"Certain other subject such as Science and ICT/Computing will provide opportunities where Numeracy skills are required." (Computing teacher, East Midlands).</i>
Design and technology	<i>Working with graphs and measurements</i>	<i>"DT has 15% examined numeracy skills so new curriculum reflects this do much more numeracy in situ used." (DT curriculum leader, London).</i>
Geography	<i>Statistics, graphs and measurements</i>	<i>"Geography has huge maths content, skills are practised most lessons through reading and creating graphs and doing statistics." (Geography teacher, South West).</i>
Business Studies	<i>Finance, budgeting and enterprise activities</i>	<i>"Business requires mathematical skills be applied to real life scenarios." (Business studies teacher, London).</i>
Art	<i>Working with graphs and measurements</i>	<i>"Scaling up, drawing in proportion, photographing composition." (Art curriculum leader, London).</i>
Citizenship	<i>Statistics and enterprise activities</i>	<i>"When we look at maths or representation of ethnic minorities in power/in prison." (Citizenship teacher, London).</i>
English	<i>Reading and drawing graphs</i>	<i>"Cross curricular skills (designing scatter and bar graphs to show rise and fall of Macbeth and Lady Macbeth." (English teacher and careers advisor, South East).</i>

5.1.7 Digital Skills

Figure 9: % of responses to where respondents felt digital skills were being developed (n=618)



Almost 70% of teachers felt that digital skills can be developed through class work. A number of art teachers noted that digital skills were developed through research activities and learning about how to work with images and file size. 12% of teachers also mentioned that the use of smart phones or iPads in the classroom has contributed to their students’ digital skills set.

Nearly 18% of teachers felt digital skills were not developed in school; a higher percentage than any other skill or competency. When asked why they felt this was the case, a quarter felt that digital skills were not being developed in school due to a lack of funding. A further 25% felt that banning mobile phones in school was counterproductive to building digital skills. Three teachers felt that digital skills were not a priority of the new curriculum:

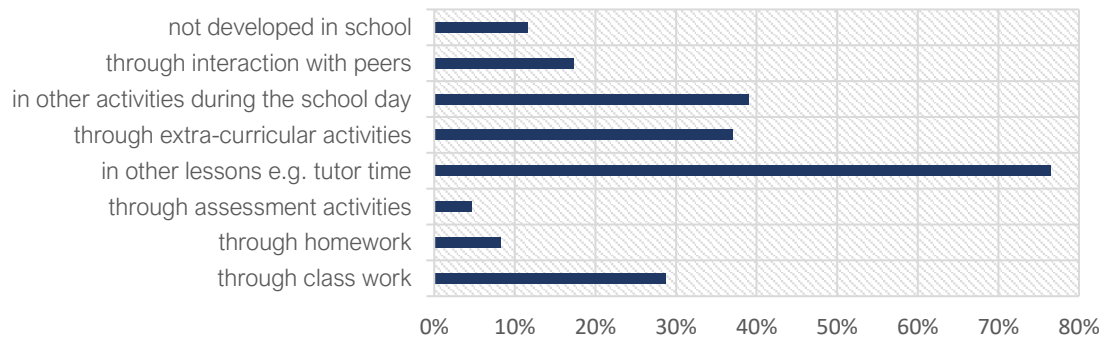
“Students are encouraged to use a wide range of skills to gather information and complete their work in a variety of ways. iPads and laptops are used in all subject lessons. All homework assignments are set online. Digital awareness and online safety is taught in PHSE.” (Art teacher, North East).

“We have just got rid of our VLE [Virtual Learning Environment] (couldn’t afford it) and have very limited access to computers/technology in school (again, not a funding priority). New curriculum has meant it is foregrounded even less because of lack of requirement.” (English teacher, North East).



5.1.8 Informed (about the world of work)

Figure 10: % of responses to where respondents felt students were being informed about the world of work (n=620)



The survey asked respondents to indicate where and how they felt students were being informed about the world of work. Only 29% of teachers felt information about careers was being fostered 'through class work'.

A clear majority of teachers felt that information on the world of work (including recruitment practices and work environments) was predominantly acquired through PSHE. One subject leader from Hertfordshire explained that their school held a careers day in Year 8 and Year 10, which featured visits from employers and mock interview practice sessions. School trips were mentioned by 14% of the respondents, with reference to careers fairs, enrichment days and visits to university open days. Respondents discussed disseminating information on careers in their tutor groups and how tailoring these activities to age groups could maximise the benefits.

"There is a careers advisor who works with organising visiting groups and activities as well as trips. The school does work experience for two weeks in Year 10. There are PSHE days where careers and applications skills are taught with local employers attending and supporting." (Science teacher, East of England).

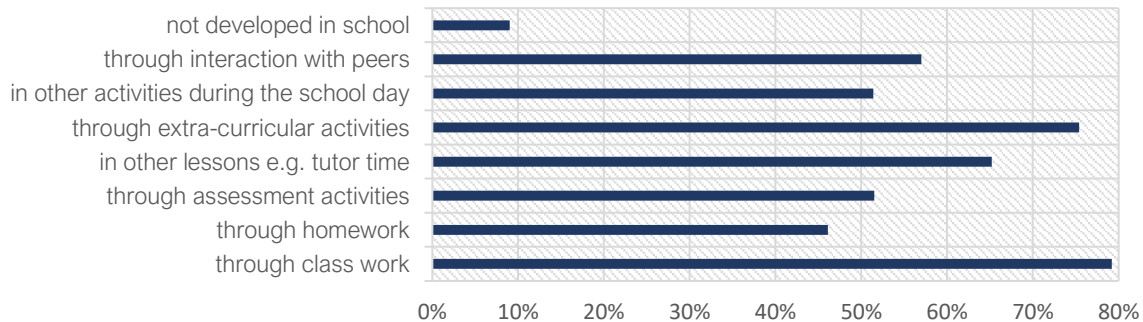
Just over 12% of teachers highlighted that students were not being informed about the world of work while at school. A number of these teachers expressed concerns that fostering career-related learning was not part of a whole school initiative, but rather organised by one or two teachers alone. Other respondents felt that schools were too focused on academic success rather than developing students' understanding of career options and how they could access these. They felt that career discussions in school should involve an explanation of the changing labour market and that the absence of adequate careers information meant that students did not know what they wanted to do when they finished school.

"Whilst careers appointments with outside providers are often provided, these are piecemeal, limited and offered too late in the secondary experience. Pupils are not often able to access work experience. There is zero input on the complexities of the labour market beyond "it's a difficult world, work hard". These areas are again relegated to being taught by people without the correct training, perhaps on the basis that any teacher can teach life skills." (Maths teacher, North West).

5.2 Analysis of the teachers' survey: where schools are developing competencies?

5.2.1 Confidence

Figure 11: % of responses to where respondents felt confidence was being developed (n=621)



It has emerged from the analysis of the written responses that building confidence is frequently associated with the process of encouraging students to overcome obstacles. According to teachers in the sample, confidence is built in young people when they were treated positively, praised when they got things right and supported when things didn't go to plan. One curriculum leader from a maintained school in Lancashire explained that their pupils were given regular feedback on progress and were given clear ideas about expectations and how to reach them. Activities to help students with their confidence, from teachers' perspective, include group work, delegating responsibilities to students to lead and presentations and group chats in classroom. Interestingly some teachers believed that confidence is interrelated with resilience:

"Linked to developing resilience - with progress, no matter how small, comes confidence. Feedback and interaction both written and spoken helps to develop this." (Geography teacher, South East).

Providing feedback to students' performance, for assessments or homework, appeared to be very useful for growing confidence in young people. Almost 50% of the respondents who provided examples believed that assessment activities and

homework, in general, can contribute to building this important competency in students. In addition, teachers felt personal and emotional support and creating activities in tutor time to support students are crucial.

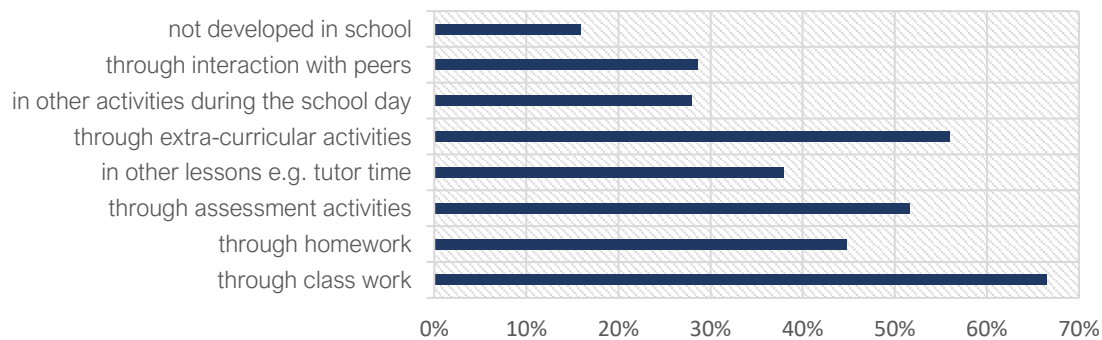
"Progress and pastoral lead initiatives - challenges ('random act of kindness; celebrating awesome tutor group and individual initiatives and successes DIRT (Dedicated Improvement and Reflection Time) work in class using best class student models to work with; PSHE yoga- working on practices to boost confidence (asana, pranayama and meditation) (English teacher and careers advisor, South East).

Extra-curricular activities, activities during the school day and interaction with peers received a higher response compared with other competencies in this survey. Frequent examples of extra-curricular activities include activities where students can try new things and competencies through music, art or performance-based activities, debating clubs and sports clubs.

"Being part of a team on placement, taking a role in schools and nurseries being responsible for children. Taking part in class and assembly presentations" (Health and social care curriculum leader, West Midlands).

5.2.2 Drive

Figure 12: % of responses to where respondents felt drive was being developed (n=611)



67% of respondents felt that young people develop drive during class work. This was very clear from the examples provided by teachers; they believed for instance class work can help students set targets for themselves and become goal-oriented and teachers can encourage them to achieve and succeed. Teachers expressed a sense of responsibility to support students, to encourage them not to give up their goals and to show them how to stay focused and try hard. Others also highlighted the role of parents and parental support; they felt that young people with parents who pushed them to do well in class were likely to have higher education and career expectations than others.

Teachers frequently mentioned developing drive as part of their school ethos or the way they cultivate the 'growth mindset' across their school. Teachers also mentioned using school activities to encourage motivation, drive and aspiration, such as whole-school assemblies:

"Whole school assemblies to promote success. Rewards - merits. Growth mindset. Sports teams success reaching county and national competition finals in rugby, hockey, soccer, etc." (Food preparation and Nutrition curriculum leader, East of England),

56% of respondents indicated that drive could be developed through extra-curricular activities and the importance of being able to develop this competency independently of teachers. Nearly one quarter of the examples were about encouraging students to enter competitions. This also refers to competitive sports and league tables.

"Competitions, rewards and prizes help students to be driven and stay motivated. Team sports. A common goal in the school community, e.g., fundraising for a particular cause."
(Art subject teacher, East Midlands)

A significant number of respondents felt that drive and motivation was not being developed adequately in school.

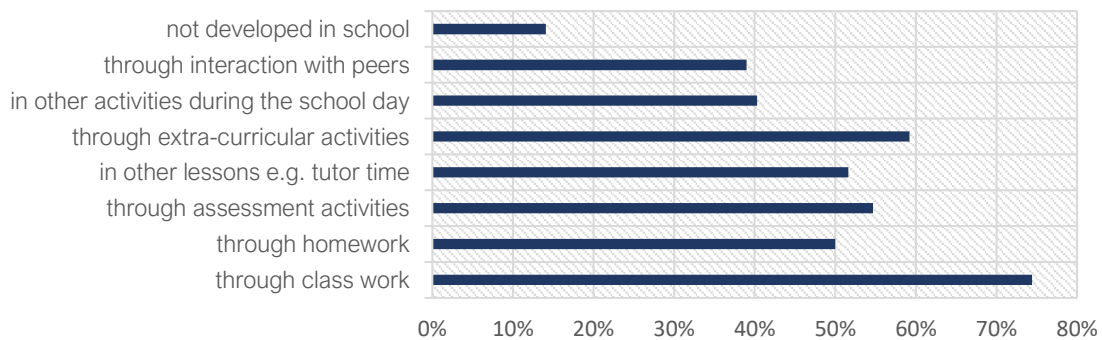
"We have a lot of careers activities such as talks from business people, scientists etc. to encourage students to raise their ambitions and there are programmes to encourage students whose parents did not attend university to think about attending. On a personal level, I tell my students to ignore their computer-generated target and aim higher." (Maths teacher, North West Academy).

Some respondents, however, weren't convinced that this is a competency developed solely in school because they believed 'being driven' was more of an attribute instilled into students by the environment they find themselves in rather than being entirely actively taught.

"I often think teachers do too much to support students because we're put under so much pressure to get results, so it's tempting to help them when they should be helping themselves." (Art teacher, South West).

5.2.3 Resilience

Figure 13: % of responses to where respondents felt resilience was being developed (n=618)



74% of respondents felt that resilience was developed 'through class work'. Examples of becoming resistant during class work were given by teachers including making mistakes and failures and to learn from them and to try again. Teachers explained how they help students to understand that the best way of learning was to fail and try again. Persistence and perseverance were two attributes mentioned frequently by the respondents.

"Meeting deadlines, sticking at things to completion, working through to fatigue & performance breakdown, recovering and going again after defeat, perseverance when learning & results aren't happening as quickly as hoped for." (PE teacher, North East).

There was an even number of teachers who believed resilience can be improved through homework (50%), assessments (55%) and other lessons such as tutor time (51%). For instance, preparing for exams and revision and setting up mock exams and providing feedback on their performance could help students with the development of resilience.

One language teacher from a maintained school in inner London discussed encouraging students to respond to feedback and making small steps to achieve their targets, rather than focusing too much on marks and grades. A similar trend was found in examples of students learning to be more resilient in other lessons. Providing feedback, increasing motivation and encouraging students not to give up were given as examples of the type of support teachers believed they should provide.

"Following assessments, I provide each student with a personal action sheet - a question on the topic they got wrong on the test, to give them the opportunity to improve on it. If they get everything correct on an assessment then they get an extension question, such as a probability tree diagram with algebra instead of fractions, to help them develop links between the different areas of maths." (Maths teacher, North West).

Teachers frequently discussed assemblies, PSHE and social interactions throughout the school day as situations where students developed resilience the most. For instance, teachers gave examples of students coping with difficulties or dealing with peer group conflicts as signs of getting more resilient.

"Growth mindset. Coping strategies in PSHE. Wellbeing and mental Health strategies being developed. School Counsellor available through med centre referral. Excellent learning support department. Excellent pastoral team. Mental health training for key staff, other staff briefed. Students aware of CP staff. 'Time to talk' with designated staff available for students." (Curriculum/subject leader, East of England)).

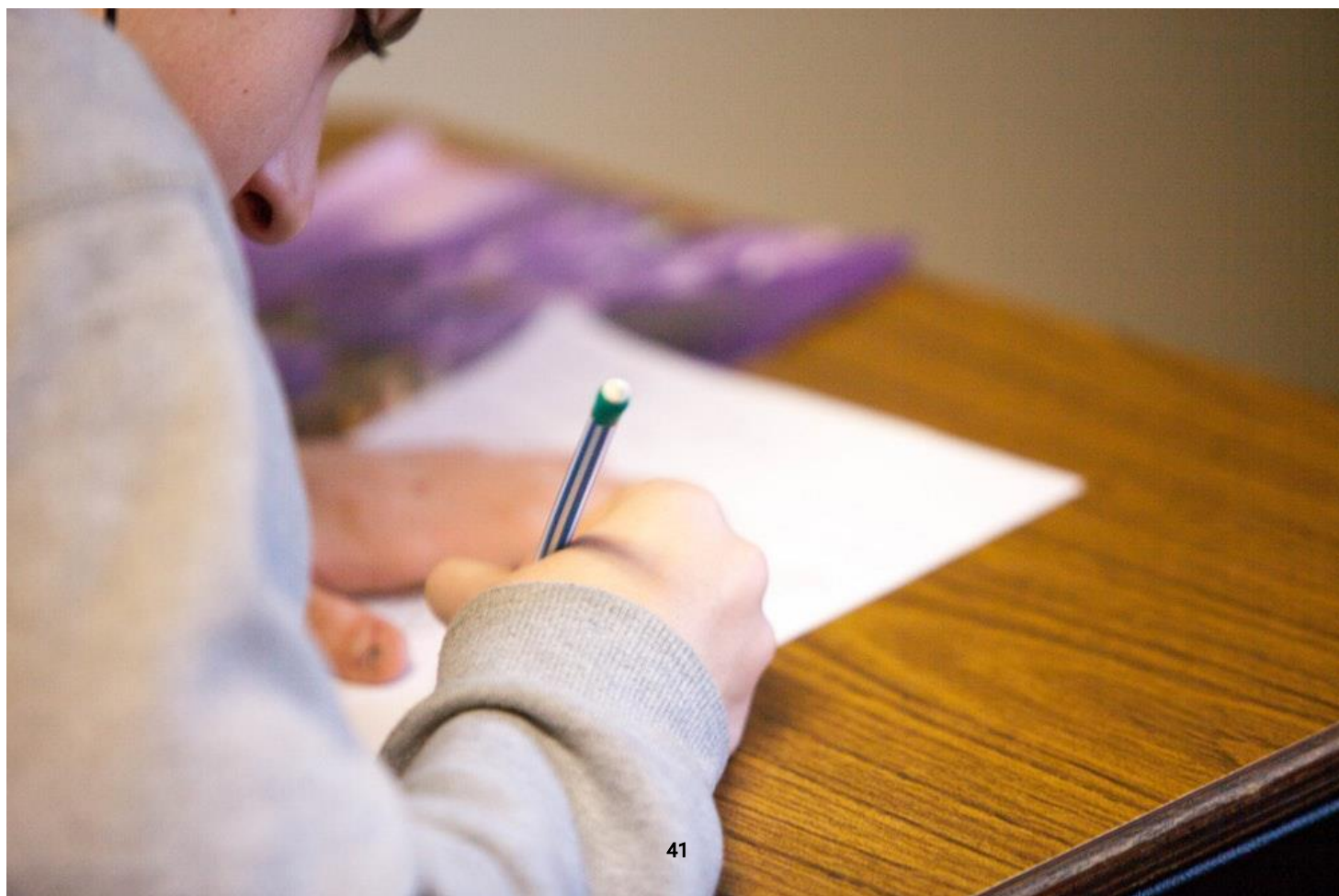
Extra-curricular activities have also contributed to the development of this competency:

"I have found students to have less and less resilience over the last few

years and it is progressively getting worse. We have just started the Duke of Edinburgh Award and I have seen many students start to develop resilience. However, this is an optional extra-curricular and I strongly believe more opportunities for outdoor learning as part of the curriculum would greatly improve resilience across all sectors of schooling.” (Health and Social Care teacher, West Midlands)).

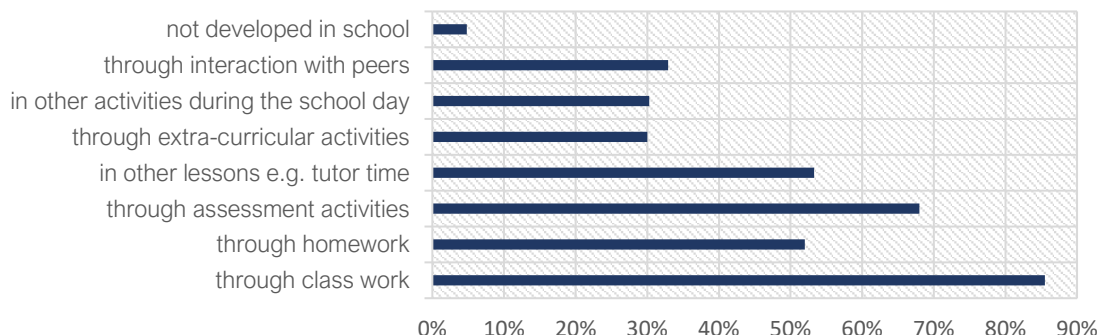
Despite all the great examples of young people developing resilience in school some respondents believed more needs to be done and students should be given more opportunities to internalise this. Respondents felt that building resilience was not being given enough value in the school timetable.

“As my subject is drama I feel we cater for many of these areas within the classroom, and one of the reasons I am very upset that it is not given more value on the timetable, within school itself and with governments.” (Drama curriculum leader, North West),



5.2.4 Reflection

Figure 14: % of responses to where respondents felt reflection was being developed (n=621)



Reflection received a higher response to 'developing through class work' than any other competencies in the survey. 23% of examples provided by teachers mention allocating time within class for reflection. An English teacher from a maintained school in Newcastle explained that time is allocated at the end of every lesson for class reflection, providing feedback and making sure students understand teachers' comments. Also using self-assessments, self-evaluation tasks and making sure students recognise their mistakes and act on them are believed to contribute. Some teachers also referred to holding DIRT (Dedicated Improvement and Reflection Time) activities in their class.

"I allow my students to see their work back, so they can reflect on their own progress. We also use a purple pen system in which students must answer to their feedback showing they have read and understood it."
(Drama teacher and senior leader, North West)

Teachers also felt that students were provided opportunities to develop the traits associated with reflection during, or preparing for, examinations. When asked for specific examples, teachers frequently noted that students are often forced to reflect and change their way of working, or work harder, based on the results and feedback they received after exams.

"Pupils are encouraged to articulate the progress they are making. They can understand marking criteria and apply it to their own progress. They can reflect on what has gone well and

how they can improve further." **(MFL curriculum leader, North West)**

Tutor time was also highlighted as a key time when students are encouraged to build the attitudes associated with being reflective. A number of teachers noted that activities during tutor time encouraged students to reflect not only on concepts such as friendship, citizenship but also dealing with difficult situations with peers.

"This can also apply to friendship groups if there has been conflict and a resolution is being sought. Pupils can look at their behaviour and reflect on a better way of behaving in a certain situation, if their behaviour has led to or contributed to a breakdown in a relationship" **(Food Preparation & Nutrition teacher, East of England)**

Almost 5% of teachers felt that the current system did not provide adequate opportunities to be reflective. When asked why, a common refrain among teachers was that reflection was often encouraged as a tick-box exercise, rather than embedded in working practice:

"I can say this is 'developed' but it is not done properly. We use STAR stickers to feedback Strengths and Targets to students which they are supposed to respond to, however, the staff and students often flail at what to write/ how to complete them as they are whole school prescriptive to fit an OFSTED target rather than individually based on departments / classes." **(Maths teacher, South East).**

5.3 School type effect

Analysis of the survey data revealed that there was no significant variation across the responses across different types of schools. However, a consistently higher proportion of independent school teachers highlighted that young people developed employability skills through extra-curricular activities. This was the case for all skills and competencies with a couple of exceptions, as table 10 below shows. As two independent school teachers noted:

“Extracurricular activities: I help with hill walking for Year 10-13s (mainly Duke of Edinburgh) where self-management skills are vital.”
(Science teacher, South East).

“Extra-curricular activities are chosen by the students, often involving the students to take initiative in the

resources they need, how they are going to progress etc. I will admit, given the environment and the push from home, this attitude towards their day-to-day life is almost expected and more achievable given the circumstances.” (Science teacher, North West).

A similar, though less striking, pattern was found when teachers were asked to think about other activities throughout the school day such as assemblies and lunch time sports activities and clubs. Again, a higher proportion of teachers from independent schools consistently felt employability skills and competencies were developed in other activities in the school day such as break time and assembly, compared to their colleagues at academies and maintained schools.

Table 10: Percentage of teachers agreeing that skills/competencies are developed through *extra-curricular activities*

	Independent	Maintained	Academy
Problem solving	87%	60%	59%
Communication	92%	71%	70%
Self-management	70%	52%	54%
Teamwork	91%	80%	85%
Creativity	91%	67%	64%
Numeracy	43%	31%	32%
Digital skills	35%	43%	41%
Informed	83%	59%	57%
Confidence	91%	70%	75%
Drive	83%	51%	54%
Resilience	83%	59%	57%
Reflection	52%	26%	42%

Table 11: Percentage of teachers agreeing that skills/competencies were developed through other activities throughout the school day

	Independent	Maintained	Academy
Problem solving	43%	36%	29%
Communication	69%	50%	47%
Self-management	43%	38%	37%
Teamwork	57%	43%	43%
Creativity	61%	33%	28%
Numeracy	22%	22%	17%
Digital skills	30%	18%	15%
Informed	48%	36%	39%
Confidence	65%	49%	51%
Drive	43%	28%	26%
Resilience	52%	41%	38%
Reflection	35%	31%	29%

5.4 Changes to school system

In 2014 a new national curriculum was introduced for most school pupils and students, and the development of new GCSE and A level qualifications began. As a result of these reforms, GCSE and A level students in England are now assessed at the end of their course, rather than through coursework. There is widespread consensus across the education sector that this has pushed schools towards a 'teaching to the test' approach to ensure students achieve the qualifications they need to progress on to further study or work. Other changes to GCSE syllabuses have narrowed students' opportunity to develop broader skills. For example, science students are no longer assessed on live practicals, and speaking and listening are no longer assessed as part of English GCSE.

In addition, from 2015 Key Stage 4 students were required to take the EBacc, which comprises seven subjects, none of which are creative, artistic or technical. It is the government's aspiration that, by 2020, 90% of students will take the EBacc. As the average number of GCSEs taken by pupils is between eight and nine: the EBacc will leave little room, if any, for such subjects. Research undertaken by King's College London, commissioned by the NUT, on the effects of Key Stage 4 changes revealed that 74% of teachers say that the Ebacc requirements are dramatically narrowing the curriculum (Neumann et al. 2016).

"Since the new curriculum we mainly teach younger children things that are too hard for them and that require a lot of drilling, close guidance and teacher support. It must be rather demoralising and dull for them. They learn little in the way of independence as everything is so tracked and assessed. There is no room for anything creative or character building within lessons, and staff are over-stretched to offer this outside of class. There is no room for failure. Some students become obsessive perfectionists and some simply disengage. Those in the middle just sit there passively and experience their education as something that's done to them, by inputting small

pieces of data much like we are programming computers with information they 'ought' to know, rather than the active engagement and development of human beings." (English teacher, Yorkshire and the Humber).

5.4.1 Impact of the new KS3 National Curriculum

As presented in Figure 15, on average 38% of teachers felt that since the introduction of the new Key Stage 3 curriculum there has been less opportunities to develop the skills and competencies demanded by employers. Nearly half of teachers felt that the new curriculum had decreased the number of opportunities to develop creative thinking skills and 35% believed that young people have limited opportunities to develop their career development skills (we group these skills under the umbrella 'informed'). Respondents frequently mentioned that students seemed less independent and self-sufficient, which affected their ability to be creative. 18% of teachers discussed having to focus on exams and assessments more since the changes were enacted.

"More numeracy in new science specification. School ethos has changed enormously so that didactic teaching is expected, potentially due to enormous subject knowledge required. Creativity and independent thinking has been completely scrapped from lessons." (Science teacher, South West).

An English teacher from Hertfordshire felt that an increased focus on assessments inhibited the opportunity to develop creative thinking.

"I think the 2014 changes are too restrictive and inhibit valuable skills. There is too much focus on terminal assessment, and not enough consideration for vocational or creative opportunities" (English teacher, East Midlands)

"The curriculum is more limiting. Less about creative thinking and problem

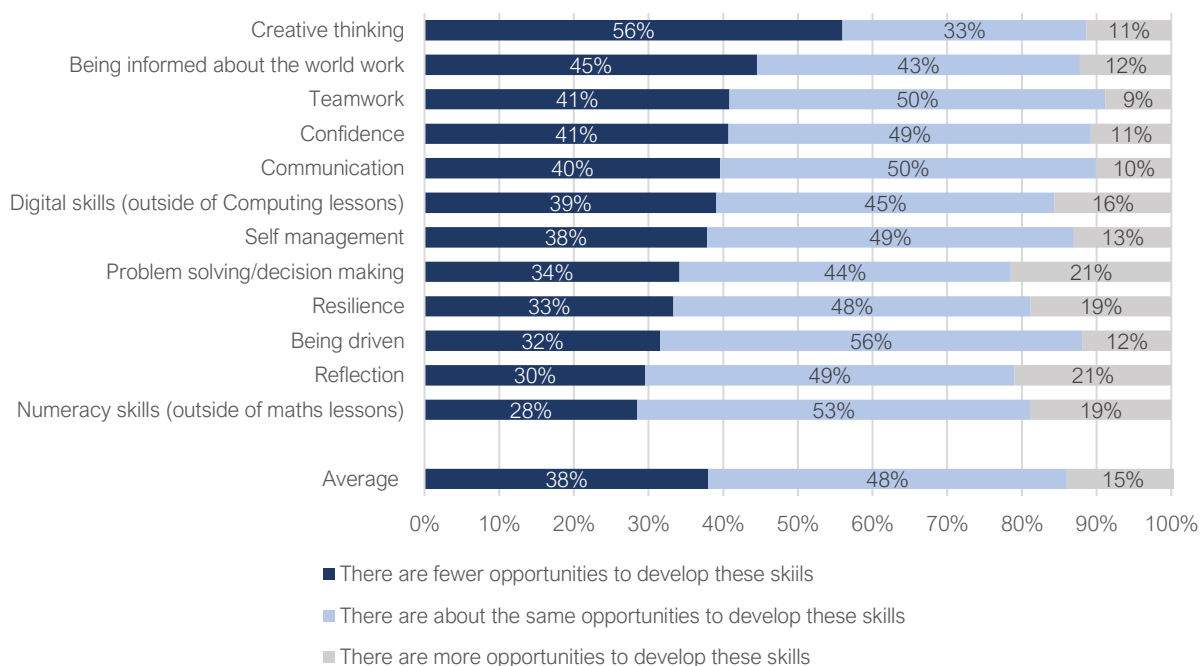
solving and more about a lot of assessments, in line with GCSE. There's a lot to fit in which means we can't do it all. There's less self-management through coursework etc as it has disappeared from the GCSE" (English curriculum leader, North West).

"The new curriculum is fuller and, in science, covered in less time - we are about to move from 7 terms to 6 allowing for more time to cover the increased GCSE content. This restricts creativity and reflection especially." (Science teacher, East of England).

Teachers also felt that students had less time to explore careers and transmit information about the world of work. Limited access to careers advisors in school and lack of resources to meet Gatsby Benchmarks were highlighted frequently by teachers in their written comments.

"Young people are more aware these days of the importance of good qualifications to obtain a good job and there is much more information available about careers, although conversely less access to careers advisers is available through school, so pupils need to become more resilient in seeking information for themselves." (MFL curriculum leader, North West)

Figure 15: % of responses to 'since the introduction of the new KS3 National Curriculum in 2014, do you think that opportunities for students to develop the following skills and competencies in class work and homework have changed?'



5.4.2 Changes to GCSEs and A Levels and its impact

As Figure 16 shows, on average 47% of teachers felt that there were fewer opportunities to develop these employability skills and competencies due to changes to GCSE and A Levels. A third of these teachers mentioned the changing nature of the syllabus after these changes, arguing that a new focus on rote learning which often came as the detriment of developing the skills and attitudes needed for work.

“Too much content and not enough skill development is now in place. Drama is 70% written work - how is this a measure of the importance of the skills above?” (Drama teacher and senior leader, North West).

A quarter of teachers mentioned not having enough time to adequately cover a packed and crowded syllabus, leaving less time to personalise learning and having to reduce the number of activities that facilitated skills development.

“The quantity and demand of the teaching content has increased at GCSE, so there is less time for skills development. Some of the content that used to facilitate skills development has been removed from the curriculum.” (Science leader, London).

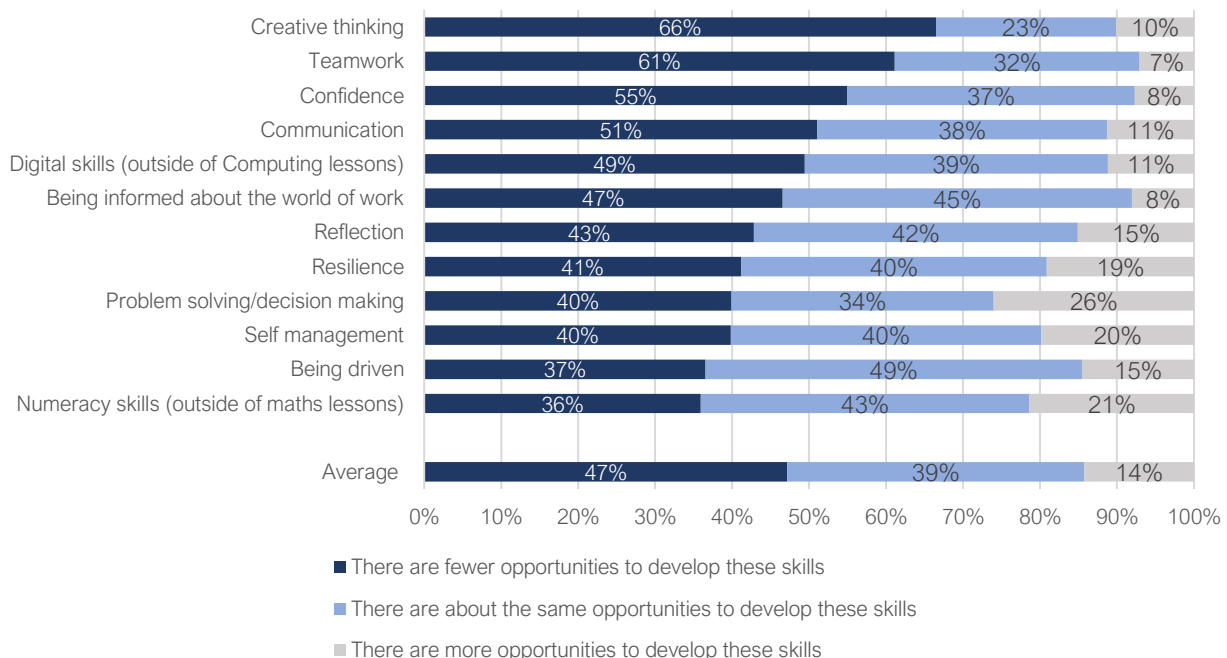
Of the teachers that said there was fewer opportunities to develop employability skills after changes to GCSEs and A-Levels, a quarter felt that the emphasis on examinations over coursework helped erode the development of confidence and self-management.

“Some students have lost confidence because there is no coursework and it is instead 100% exam for many subjects, a lot of the burden falls on them, massive knowledge recall, timetables are more stretched so less time for careers exploration, teachers seem to have less time to debate and discuss due to being worried about getting through all the content, more exam pressure for teachers and student.” (History subject teacher and careers coordinator, South East)

15% of written responses discussed creativity, usually with reference to having not enough time to develop this skill. One subject teacher felt that both changes to GCSEs and A Levels and changes to the KS3 curriculum were too restrictive and inhibited skills which employers may consider invaluable.

“The incredibly heavy content-based courses leave no time for creativity - in the classroom or outside of it - and are belittling students' confidence in their skills and abilities.” (English subject teacher, East of England)

Figure 16: % of responses to 'since the introduction of the new GCSEs and A levels, do you think that opportunities for students to develop the following skills and competencies in class work and homework have changed?'



DISCUSSION

There is no more timely issue in education than how we prepare young people for the future labour market. The recent literature shows that employers have long bemoaned what they see as the poor employability skills of young people at the start of their careers. Yet this is the first time that an attempt has been made to match what the employers require of new recruits with the skills that are developed in schools. This is an important first step, but one that also raises more questions and shows that a number of challenges must be overcome in order to equip young people for life beyond school.

It is clear, from the findings of the survey of teachers summarised in the previous chapter, that schools are aware that young people must be equipped with the skills and competencies needed for work. Furthermore, teachers are evidently and resolutely doing their best to support their students to develop these skills. For example, less than five per cent of teachers feel that problem-solving skills are not developed and only one per cent believe that their students do not learn communication skills in school. According to the review of the literature in this area, and as verified by our employer focus groups, these are the top skills required of young people entering the workplace.

Even more revealing than the statistics are the detailed examples that teachers gave of how these skills are developed in school. These included explanations of how students organising their busy schedules, including homework across a range of subject areas, extra curricula activities and relationships with other students enable them to develop time management and problem-solving skills. Specific examples from the curriculum were also cited by respondents to the survey to demonstrate how skills are developed. For instance, students learning about microscopy in GCSE sciences are required to use mathematics

and therefore develop their use of numeracy skills in differing situations.

Despite the positive feedback from teachers on how students' skills and competencies are developed throughout the school day, there are some clear barriers that emerged from our survey. It is concerning, for example, that nearly half of the respondents believe that there are fewer opportunities for students to develop creative thinking skills since the introduction of the new KS3 National Curriculum in 2014. Over one third of teachers also feel that changes to the National Curriculum result in fewer opportunities to acquire teamworking skills, gain confidence and learn about careers. All of these skills and behaviours are regarded by employers as currently lacking in their young recruits. We should be concerned that greater employability skills gaps are likely to emerge as the cohort of students who began Key Stage 3 in or after 2014 enter the labour market.

This is not a new concern however, earlier in 2018 the CBI's chairman Paul Drechsley, speaking at the ASCL conference, was robust in his articulation of "the need for the school curriculum to reflect the breadth of knowledge and skills need by people in their lives and at work".⁵ Similarly, the Institute of Director's 2016 *Learning for Life* report stated that education policy is turning "schools into exam

⁵ TES. (2018). 'At long-last, the narrow knowledge-based curriculum is being rejected across the education sector' from: <https://www.tes.com/news/long-last-narrow-knowledge-based-curriculum-being-rejected-across-education-sector> (accessed 14/11/2018)

factories, squeezing out creativity and the joy of learning at a time when these very attributes are becoming increasingly important". The findings of this report chime closely with those of research *In Exam Factories?* published in 2015 by Emeritus Professor Merryn Hutchings of London Metropolitan University.

"...the current system of measuring pupils' attainment and using this to judge schools and teachers is deeply damaging to children and young people and does not foster the skills and talents that are needed in higher education or in employment..."
(Hutchings, 2015: 18)

Even more concerning is the impact of changes to GCSEs and A levels. With increased syllabus content and assessment firmly switched to end of course examinations, teachers tell us that there is simply less time to use pedagogies that promote skills development. Rote learning and knowledge recall is necessary to ensure that young people get the qualifications they need to progress. It is alarming that 60 per cent of teachers believe that there is less opportunity for students to develop creative thinking skills within the new GCSEs and A levels.

In the focus groups, employers rated digital skills highly, however just under one fifth of teachers surveyed stated that these are not developed in school. Furthermore, just under half of teachers thought that there are fewer opportunities to teach this skill since the introduction of the new GCSEs and A levels. Given the fact that workplaces and indeed society is becoming more technologically advanced and digitalised, it is worrying that there is less impetus on these skills and many schools are finding less time to teach them. The Fourth Industrial Revolution and the increase in automation will require workers to have a higher level of digital skills than has previously been required. It is cause for concern that we are not adequately preparing young people for this rapidly changing world. Indeed in 2017 and 2018 entries into the computer subjects at GCSE have continued to fall (JCQ Statistics, 2018). We need to increase the take up of IT and computer science and ensure that we have excellent teachers sufficiently trained to teach these. Hence young

people will have sufficient digital literacy when progressing to further studies or work.

At the same time, the increasing amount of automation that the Fourth Industrial Revolution will likely bring means that we will value the skills that humans possess and which computers cannot provide us with. We need to ensure that the skills, for example reflection, creative skills and communication skills that make us human are nurtured and developed sufficiently. Yet the teachers' survey findings show that a large proportion of teachers believe there are fewer opportunities to develop these skills at school, and this lack of opportunity is starker at GCSE level. Giving teachers greater autonomy and opportunities to teach using interactive pedagogies such as project-based learning approaches would support the development of such skills and competencies.

The results of our survey also convey a clear message that cuts to school funding are negatively impacting the opportunities for students to develop employability skills. The £2.8bn of real-terms funding cuts to schools have resulted in many state-maintained schools being forced to cut extra-curricular activities, although teachers frequently cited these as being key to developing a range of skills. Here, independent schools have a clear advantage in the number and variety of extra-curricular activities that they are able to offer students.

It is hoped that the innovative research summarised within this report will give employers some encouragement that schools are doing their very best to equip their students with the skills they believe are necessary for working life. There are certainly challenges to overcome, including in some areas, a mismatch between the work schools are doing in this area and the reality of what employers actually need. This incongruence is most evident in the area of creativity. For employers this means coming up with new ideas and strategies to solve problems and being open minded to new approaches. In this area however, teachers referred to creative subjects such as drama, music and art and activities including writing diary entries and designing posters.

This is not to say that these subjects do not foster the creative skills that employers are looking for, but more that there is still work to do to articulate how this happens. However, in an era when workload is increasingly acknowledged to be driving teachers out of the profession, it cannot be right to ask teachers to do more to increase the opportunities to develop employability skills. Employers must step up to support teachers and their next generation of employees.

It was interesting that during the focus group discussions, employers added 'commercial awareness' and 'service orientation' to the list of skills and competencies that they believe young people need to develop. This suggests that to foster such awareness young people need to have insight into a range of industrial sectors, which may come about through meaningful interaction with employers and indeed significant work placement opportunities. Furthermore, teachers need to nurture commercial awareness in order to effectively support their pupils to develop this, through meaningful encounters with employers.

What is clear is that the dialogue between employers and schools on the specificity of skills and competencies must continue and deepen. While teachers continue to do their best to develop employability skills curriculum and qualification reform, the accountability regime and cuts to school funding are making this increasingly difficult. If employers believe that there are key skills missing in young entrants to the labour market now, they will experience much greater gaps in these areas as those currently in school and affected by recent education policy walk through their doors for interview.



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