Ensuring students have the skills to succeed

The Task Force believes students should have a major voice in the debate about the future of HE. They have a right to expect a high-quality education and they want a worthwhile job when they leave. But students have to help fund the education that gives them these long-term benefits.

All students need to develop employability skills while they are at university.

Students need to be clear about the benefits in employment terms of studying certain disciplines, such as STEM or certain skills such as language proficiency.

All students should leave university with the employability skills they need for work

There must be a greater focus on students in all disciplines developing employability skills and getting experience of the world of work while at university. The broad university experience and the process of learning provides students with the opportunity to develop the skills and attributes which employers value, such as research skills, managing information and critical thinking.

The acquisition of employability skills – through additional course components offered to students, for example, or embedded within academic degrees – needs to be given a high and formally-credited profile within both undergraduate and postgraduate degree courses. As part of the Task Force’s work, the CBI has conducted extensive research with Universities UK and DIUS (as was) into current approaches to the teaching of employability skills in UK universities. The subsequent report, Future Fit, explains that where universities set aside specific resources to engage with employers and ensure their students have the opportunity to develop employability skills, real benefits are forthcoming in terms of preparing students for the world of work.
Much more needs to be done. Half of all recent graduates would like to have done more work experience alongside their studies, and three-quarters recognise work experience as a crucial consideration for employers when taking on graduates. Work experience, whether in the form of short-term work placements, extended summer internships or ‘sandwich’ years in industry, can be hugely beneficial in developing the skills that employers value. Most CBI members believe universities should help arrange work experience placements for their students as a priority. The mechanisms for achieving this – dedicated employer brokerage in university careers advice centres, for example – are not cost-intensive, and bring enormous benefits to students, universities and businesses. But for this to be effective, employers must also become more engaged.

Students themselves have a big part to play in achieving these employability outcomes. Task Force members have already committed to offering more placement opportunities and work experience, as well as to working with universities to give students access to live projects to enrich the HE experience. Students need to understand that employability is an important goal for their time at university. Those not already doing so should take up the opportunities on offer and look for work-related learning – for example through their regional Shell Step agent or the National Council for Work Experience.

Universities and business must work to revitalise sandwich courses – businesses need to offer more places and students should be exempt from tuition fees during their placement year.

"I know first-hand that British graduates are themselves competing in a global market for the best jobs. In the UK we need to ensure that our graduates continue to be amongst the best in the world, developing the business awareness, personal skills and technical knowledge they will need to be successful in today’s world.”

Johnny Cameron, former Chairman of global markets, Royal Bank of Scotland

“University opens doors so you’ll be considered for a job. Now so many go to university you have to differentiate yourself. What do you demonstrate to employers? It’s down to the individual. Everyone’s got to develop key competencies.”

Graduate focus group respondent

Recommendation 20
Students need to take up opportunities to develop employability skills from day one of their university experience, being more demanding of academic institutions to ensure this is delivered.

Recommendation 21
Universities need to ensure that the employability skills of all students are explicitly developed and recognised while they are at university. These skills should be developed alongside their academic qualifications and achievements – they are an integral part of HE.

Raising the number of students with STEM degrees

In recent years a number of initiatives have been taken to raise young people’s interest and participation in science and maths at school. It is important to focus on proven schemes that address the main barriers to increasing participation, such as the STEM Ambassadors programme. But raising STEM attainment and participation also requires changes in the approach to mathematics and science at school level.

"STEM skills are now vital for a new generation of industries which will help the UK economy grow and prosper in the future. In addition to more traditional sectors, we must develop the ‘new STEM’ agendas in non traditional parts of the economy such as entertainment technologies and digital communications.”

Madeleine Atkins, Vice-chancellor, Coventry University
All students should be expected to study some form of maths post-16

The Task Force thinks more young people should study maths or continue to develop their numeracy skills after the age of 16. A solid understanding of maths is an essential requirement for success in other science subjects and develops valuable numeracy, analytical and problem-solving skills. Maths is the only A-level subject that adds to earnings – up to 10 per cent – even when the employer is unaware of the person’s qualifications.51

Among the UK’s leading competitors, an opt-in culture for maths leads to much higher participation rates among 16-18 year-olds. In France, where a form of maths is compulsory for all students pursuing the baccalauréat qualification, around two-thirds of the cohort take maths after the age of 16. In all streams of the German education system, a form of maths is obligatory until the completion of secondary education. In Singapore – where secondary school students are consistently among the top performers in the quadrennial Trends in International Mathematics and Science Study – even students who specialise in humanities and arts at A-level have to take at least one maths or science subject.

As a nation, the UK is failing to capitalise on the maths potential of its young people – only around 15 per cent of young people continue to study maths at any level post-16.

Since 2003, there has been an average five per cent annual growth in the number of students taking maths A-level, but take-up has only recently returned to pre-2000 levels. Maths A-level made up just nine per cent of total entries in 2009, and even if the number of maths entries hits the government’s proposed new target of 80,000 by 2014, this would still only represent around 13 per cent of total entries.

Recommendation 22
Government needs to ensure that all young people, regardless of what route they choose, study some form of maths or numeracy education after 16.
In England and Wales, the current ‘single lane’ system of maths after 16 needs to be widened – students that are not able or do not wish to do maths A-level should be able to study for an applied maths AS/A-level, a maths AS-level spread over two years, or a higher-level functional numeracy qualification.

Students who fail to achieve an A*-C at GCSE, or Scottish equivalent at 16 should be opted-in to courses to help them to do so, or to achieve a level two functional numeracy qualification.
Exhibit 20
Young people feel unsupported by the careers advice they receive

- Two fifths (43 per cent) of 16-18 year olds either received poor advice or did not receive any advice at all from a careers service.
- 44 per cent of undergraduates think there is insufficient information to help school and college students choose between universities and courses.
- Over half (55 per cent) of graduates felt that if they had received more or better careers advice they would have definitely or potentially changed their course.

Source: CBI/YouGov (2009)
Better information, advice and guidance to students will improve the take-up of the subjects that business values, and that lead to better employment outcomes for students.

Lack of information and effective guidance can lead to young people making the wrong decisions at 14, 16 and 18, and to disappointment at a later stage. More than a fifth of students who enrol on HE courses subsequently drop out— a low proportion by the standards of other developed countries, but still a bad experience for those involved.

Current websites do not go far enough to encourage good decision making. The UCAS website provides useful basic information about entry requirements and the institutions. Unistats is intended to enable students to compare universities on teaching quality, job prospects and student satisfaction, but offers only a very limited snapshot of graduates’ career destinations and employment rates.

In the US, the Occupational Outlook Handbook, produced annually by the Department of Labor provides an accessible online resource for prospective university applicants to find out which courses provide access to particular career routes, and what prospects different types of job have to offer.

Action is needed to provide good quality data to inform choices. This should include:

• **Information on teaching quality:** universities should publish data on teaching quality to inform student decisions on institutions and individual courses. Objective scorecards for universities and courses are needed as well as more detailed student satisfaction scores

• **Tracking employment outcomes:** more information on employment outcomes from students on particular courses and institutions should be available; information on the skills acquired from different degrees (building on CIHE work) is also needed

• **Economic returns from different degree subjects:** information about the salaries that students on particular degrees can expect to earn needs to be collected regularly and would provide a useful resource for careers advisers and university applicants. Students pursue courses for many reasons apart from maximising their future income, but they still need to understand what they can reasonably expect in return for their investment in higher education

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**Exhibit 21 A view from the students**

As they prepare to enter the toughest labour market in a generation, young people are aware of the impact that the recession will have on their search for jobs. A new survey conducted by YouGov for the CBI showed that two thirds (69 per cent) of current undergraduates expect economic conditions to affect their plans after graduation. In these tough times, students are clear about the importance of developing employability skills, and the value of work experience. The survey found:

• A third of undergraduates (34 per cent) are learning employability skills as part of their degree

• Two thirds of undergraduates (62 per cent) and graduates (66 per cent) recognise the value employers place on employability skills when recruiting

• Four out of five undergraduates are either undertaking, or intending to pursue, work experience

• 91 per cent of students applying to university have some idea of the career they wish to pursue.

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**Recommendation 24**

Government, universities and business must work together to provide students, their advisers and their family with an effective website so that students can compare the outcomes of different choices, based on high-quality information about employment prospects, teaching quality and economic returns from different courses.