# The impact of the 14–19 curriculum reforms on higher education



This series of Policy briefings published by Universities UK provides authoritative and accessible analyses of current and emerging higher education policy issues.

We aim to publish several booklets a year on major topics of the day, with an analysis of an issue, identification of policy options and, where relevant, a Universities UK or sector position. The booklets will draw on our existing Universities UK policy work as well as new research that has been undertaken or commissioned.

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The higher education sector has a vital role to play in ensuring the success of the current reform of 14 – 19 education in England. Universities are reliant on the preparedness of students for higher education to continue producing graduates and postgraduates with the necessary skills, training and development in order to support the UK economy. It is university admissions departments that will ultimately decide if these new qualifications are fit for purpose.

This policy briefing explains the planned changes and the ways in which universities are both supporting these developments and preparing for their impact on the sector. It looks at the content of the new qualifications, the implications in key areas such as admissions and student assessment, increased engagement from business in design and delivery and the future employability of graduates. The briefing also explains similar reforms in the devolved administrations.

This briefing argues the following:

- The critical engagement of the sector in the 14 – 19 curriculum reform is crucial to its success.
- University admissions departments will be key to ensuring that the diploma is successful as a progression route to higher education.
- There is real value in business engagement in 14 – 19 curriculum design and delivery.
- A range of experts and interested parties will need to scrutinise the emerging proposals carefully if the reforms are to be fit for purpose.

This briefing is intended to help the higher education sector consider the proposed changes to the 14 – 19 curriculum and how it can best engage with, and adapt to, the reforms in the future.

- 1.1 School-level education in England is undergoing the biggest reform programme for over 40 years. This policy briefing explains the planned changes and the ways in which universities are both supporting these developments and preparing for their impact on the sector.
- 1.2 The reforms are radical and are intended to be far-reaching: they will transform the school curriculum, assessment methods and the range of opportunities on offer, and hence the ways in which young people are prepared for higher education. They aim to provide a wider range of learning routes which are tailored to the talents and aspirations of young people and allow them greater flexibility about what, where and how they study, as well as when they take their qualifications<sup>1</sup>.
- 1.3 The reforms encompass the design of a new curriculum for 14–19 year olds which will impact upon the range, pace, breadth and stretch of qualifications available to young people. There are changes to existing qualifications at GCSE and A-level and the introduction of major new qualifications, including the diploma and extended project. (These reforms are described in Section 5.) The reforms are accompanied by an extension to the age to which young people must remain in education or training: by 2015 all young people in England will be required to participate in some form of education or training until they are 18 years old.
- 1.4 The teaching of the new and revised qualifications began in schools in 2008 and the first holders of these qualifications will join higher education in 2010. By this point the majority of young people entering higher education will have studied something different and been assessed in different ways from previous cohorts, irrespective of whether they are entering higher education with A-levels or another qualification. The implications of the reforms for learning and teaching in higher education are therefore significant.
- 1.5 These reforms support a continuing government aim to ensure that the UK continues to compete successfully in the global economy by developing a world-class workforce. Along with the changes in England there are similar reforms in the devolved administrations. Wales has the Learning Pathways 14–19 reforms, which include the Welsh Baccalaureate. Scotland is bringing in the Curriculum for Excellence and in Northern Ireland, for the present, the reforms are contained in the Entitlement Framework 14 to 19. See Section 6 for more about the reforms in Wales, Scotland and Northern Ireland.

- **1.6** At the heart of all the reforms is an entitlement for all young people to the education best suited to them in a setting appropriate to what they are learning. The aim is to encourage more young people to continue learning for longer and to gain the qualifications they need to progress into further and higher education or employment. In England the simultaneous introduction of a new national gualifications framework is intended not only to establish clearer progression routes both academic and vocational - but also to widen access to university by providing more young people with the opportunity to study to the highest level possible. In offering broader choice and personalisation, the reforms are intended to contribute to promoting social justice.
- 1.7 The work required to introduce the reforms is substantial, and a comprehensive implementation programme has been in progress since 2005. A range of experts and interested parties will need to scrutinise the emerging proposals carefully if the reforms are to succeed.
- **1.8** The involvement of the higher education sector is crucial to the success of the reforms, and universities are already critically engaged. Many of the proposed curriculum developments are receiving active input from universities, while others depend upon their endorsement and support. Many individual universities have welcomed the diplomas and over 200 higher education institutions have provided supportive statements to UCAS. All the representative groupings, the Russell Group, 1994 Group, Million +, University Alliance and GuildHE, have also been supportive of the curriculum reform programme. Universities support the programme of curriculum reform and are committed to assisting with the development of proposals. This commitment implies that they will, where necessary, challenge proposals to ensure that they are fit for purpose.
- 1.9 The effect of the reforms will be to bring about a shift in the background of most entrants to higher education. Universities are acutely aware that they will need to make corresponding changes to their own curricula at every level. Therefore, the higher education sector has a vital role to play in ensuring the success of the reform of 14–19 education.

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- 2.1 The reforms represent the outcome of a number of recent reports' recommendations and convergent agendas, tackling a range of connected issues:
  - the low staying-on rates in education and training rates in the UK compared with those in other developed countries;
  - the need to improve the qualifications and skills of the workforce in order to meet future challenges of global competition;
  - a need to re-engage disaffected young people who drift outside education, employment or training between the ages of 16 and 19;
  - the low status and, in some cases, low quality of vocational courses and qualifications;
  - the need to stretch more fully the most able young people;
  - addressing complaints from both employers and universities that the basic skills of school leavers are unsatisfactory; and
  - the need to rationalise a complex web of qualifications, particularly vocational qualifications.

## Key reports

2.2 The most significant of the reports produced in recent years is that of the working group on 14–19 reform chaired by Sir Mike Tomlinson, which was published in October 2004. In 2005, this prompted the publication of the Government's White Paper on 14–19 education and skills (in February) and the associated 14–19 implementation plan.

## The Tomlinson report (2004)

The report proposed that a new diploma framework should replace the existing qualifications studied by 14–19 year olds in England. GCSEs and A-levels would evolve into diploma components, retaining much of their existing content. The report also recommended raising the school leaving age.

## The White Paper on 14–19 education and skills (2005)

The White Paper accepted the concept of diplomas but retained GCSEs and A-levels as cornerstones of the new system of 14-19 education in England. These exams would sit alongside and, in many cases, form components of, the new diplomas<sup>2</sup>. GCSEs and A-levels however would undergo significant changes to their content and structure. Plans were also introduced for an extended project qualification to test a wider range of higher level skills, and also to make modules at higher education level available to the most able school and college students. Measures were introduced to improve the functional skills of students in English, mathematics and information and communications technology (ICT) throughout the new and revised qualifications. It also announced that a further review of the revised GCSEs and A-levels would be undertaken in 2013 as part of a wider review of 14-19 gualifications.

#### The 14–19 implementation plan (2005)

The plan explained how the changes outlined in the White Paper would be managed. As the reforms develop, they have continued to evolve.

## ■ The Education and Skills Act (2008)

The Education and Skills Act 2008 will make participation in education or training in England compulsory up to the age of 18. Students entering secondary school Year 7 in 2008 will be the first cohort.

## Delivering 14–19 reform: next steps (2008)

This report describes progress in the implementation of the 14–19 reforms in England since 2005, and sets out the steps being taken to ensure the educational entitlements for all students in this age group, improvements in information, advice and guidance services and the implementation of the raised participation age.

## Apprenticeships, Skills, Children and Learning Bill (February 2009)

This deals with the regulation of qualifications in the UK and will establish the Office of Qualifications and Examinations Regulation (Ofqual) as an independent regulator of qualifications and assessment, reporting to Parliament, to improve confidence in standards. The Bill will also transfer the Qualification and Curriculum Authority's non-regulatory functions to a new Qualifications and Curriculum Development Agency (QCDA) 2.3 The work to reform 14–19 education has been going on for a long time, enabling it to take into account the outcomes of other significant reviews and inquiries. These include:

#### Making mathematics count (2004)

This report by Professor Adrian Smith recommended changes in the school post-14 mathematics curriculum, qualifications and pedagogy, with the aim of boosting achievement in mathematics in England.

#### The Leitch review of the UK's long term skills needs (2005)

The interim and final reports were published in December 2005 and December 2006 respectively, the latter recommending that the UK commit to becoming a world leader in skills by 2020. This implied a doubling of attainment at most levels of skills.

## Realising the potential: a review of the future of further education colleges (2005)

The report of the review by Sir Andrew Foster examined the challenges and opportunities facing further education colleges in England. It recommended a primary role for further education colleges in the development of vocational skills to serve both employability and progression to further study.

## Further education: raising skills, improving life chances (2006)

Responding to the Foster review, this White Paper stressed the Government's commitment to 'leading the world in skills development', with virtually all young people engaged in education or training up to the age of 19, with half going on to higher education; and all adults having the support to up- and re-skill throughout life.

#### The Dearing review of modern languages (2007)

Led by Lord Dearing, the review identified ways of encouraging 14–16 year olds in England to gain GCSEs or equivalent modern language qualifications. The recommendations included the reform of GCSEs and moving away from a one size fits all approach. 2.4 Overall, the Government's aim is to build on the recent improvements in attainment at levels 2 and 3 in the national qualifications framework so that more young people in England will achieve levels 2 and 3 by the age of 19, and fewer will drop out before the age of 18. The target is that by 2020 75 per cent of 19 year olds will be qualified to level 3, increasing significantly the numbers eligible to enter higher education. This, it is hoped, will counter the effects of expected population falls in England from 2010.

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- 3.1 The reforms represent a fundamental change to the 14–19 curriculum and qualifications in England. Their main aim is to engage all young people through a curriculum that provides a range of routes, both academic and vocational; encompasses a range of learning styles; and can be pursued in a range of locations<sup>3</sup>. As they progress and become embedded, it can be expected that the reforms will alter the characteristics of students entering higher education from 2010 onwards. The learning experience and methods of assessment, and hence the expectations and demands of these students, are likely to be different from those of the cohorts presently entering higher education.
- **3.2** The reforms consist of a package of curriculum and qualification developments which are encompassed in the new national qualifications framework. The framework defines three main routes for 14–19 learners:
  - general qualifications;
  - diplomas; and

Table 1:

apprenticeships.

At the same time the thousands of vocational qualifications currently available – many of which are taken by fewer than 100 students – are being rationalised. The development of the national qualifications framework has involved reform of existing qualifications and the design of new qualifications, largely the diploma development programme which seeks to bridge the academic and vocational routes.

- **3.3** Young people will be able to move between pathways to ensure that they succeed on the most appropriate programme for them after the age of 16 or 18 as they move into work or higher education.
- **3.4** Virtually all young people entering higher education in 2010 will have studied something different from previous cohorts and will have been assessed in different ways, whether they are entering higher education with A-levels or with another qualification.
- **3.5** The impact of the reforms and qualifications will be assessed again in 2013.



Source: DCSF/QCA

## apprenticeships.

14-19 qualifications strategy

## A-levels

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- 4.1 In its White Paper of 2005<sup>4</sup>, published in response to the Tomlinson report<sup>5</sup>, the Government decided that 'GCSEs and A-levels will be retained as cornerstones of the new system of 14–19 education'<sup>6</sup>. A-levels were last reformed in 2000, resulting in the introduction of the Advanced Supplementary (AS) examinations and unitised gualifications. These reforms, known as 'Curriculum 2000', had led to criticisms of A-level as a preparation for higher education level study<sup>7</sup> from colleagues in higher education, and also criticisms from employers about the functional skills of school leavers and graduates. There were also widespread concerns - voiced in the Tomlinson report about the over-examination of young people.
- 4.2 The aim of the latest revisions to A-levels is to ensure that they offer a more challenging and stimulating programme, and thus improve motivation. The Qualifications and Curriculum Authority (QCA) and the Office of the Qualifications and Examiners Regulator (Ofqual) are keen to ensure that the new A-level syllabuses maintain the standards of current A-levels.
- **4.3** The resulting changes to A-level are:
  - revision of all A-level specifications resulting in significant change to some, and relatively minor changes to others;
  - a reduction from six to four in the number of units of an A-level in most subjects. The exceptions are sciences, mathematics, music and applied A-levels. The volume of content has not changed, but has been redistributed across fewer units in most cases;
  - revision of mathematics subjects for first teaching in September 2011;
  - greater emphasis on thinking and problem solving;
  - introduction of stretch and challenge in examinations, including the requirement for longer written answers, a reduction in the number of short answer questions, and the introduction of synoptic questions to assess knowledge and understanding across an Alevel specification;
  - removal of optional coursework coursework will remain where it is considered essential to the study of that subject;

- introduction of an A\* grade that will attract 140 UCAS tariff points. It will be awarded to students who achieve a grade A overall at A-level and also achieve 90 per cent or more on the uniform mark scale (UMS) across their A2 units. This will not affect the level at which other grades are awarded;
- applied A-levels will be discontinued from 2013 but, until that date, the applied A-level double award will also be awarded at A\*A\* and A\*A grades.

## GCSE

**4.4** The GCSE has undergone a similar reform and revised specifications will be taught for the first time in September 2010. Thus the first cohorts to enter higher education in any numbers with the new specifications will be in 2014.

## Apprenticeships

- 4.5 The Government wants apprenticeships to become a mainstream option for 16–18 year olds, and to provide options for progression to higher education<sup>8</sup>. From 2013 suitably qualified young people will be entitled to an apprenticeship and it is intended that by 2020 about a fifth of young people will be on apprenticeship programmes with 400,000 apprentices being trained each year.
- **4.6** Universities UK believes that there should be a clear articulation between the apprenticeship framework and higher education. Apprenticeships can be a very effective way of widening participation in higher education. They should be designed to enable progression to full honours degrees so that, if and when apprentices or former apprentices decide that a degree qualification would be useful for them, they are able to obtain one. In the same way that foundation degrees have been designed to allow such progression for people who are less comfortable with the traditional academic route to higher education, apprenticeships should fulfil the same objective. Apprenticeships should be about opening up opportunities, rather than narrowing them.

#### The diploma

- 5.1 Details of the development, timetable for delivery, and structure of the new diplomas are explained in this section along with the 'extended project qualification' which is a compulsory part of the diploma but can also be offered alongside A-levels.
- **5.2** The diploma is a new qualification in England, which has been developed across 17 subject areas. The 17 diplomas are also referred to as 'lines of learning'. The diploma will be offered at three levels - foundation, higher and advanced and is being introduced in five phases. The development of the diploma has been very different to the way in which general qualifications such as A-levels are usually developed. The development work has been led by sector skills councils, with the involvement of employers, schools and colleges, higher education and awarding bodies. The Government and others are keen to stress that the diploma provides general education within a context, as opposed to vocational training that leads to an occupation.
- **5.3** Each diploma line of learning contains academic and vocational material within the theme of each of 17 main occupational sectors of the economy. Each diploma is a composite qualification that aims to challenge students in various ways: for example, to understand and apply knowledge and to achieve a strong foundation of functional and personal skills. To achieve a diploma young people need to:
  - gain appropriate standards in English, mathematics and ICT;
  - acquire specialised knowledge, for example this may be relevant GCSEs in the higher diploma, and A-levels in the advanced diploma, or could be a unit specifically related to the diploma;
  - complete an extended project; and
  - undertake a minimum of 10 days' work experience<sub>2</sub>.

The precise combination of elements will depend on the aspirations of each individual learner, for example whether they are aiming to enter employment or higher education. **5.4** The diplomas are being introduced in five phases from September 2008 as outlined in Table 2.

## Table 2: Timetable of introduction of individual diplomas

Diploma	First teaching
IT	September 2008
Society, health and development	
Engineering	
Creative and media	
Construction and the built environment	
Land-based and environmental	September 2009
Manufacturing and product design	
Hair and beauty studies	
Business administration and finance	
Hospitality	
Public services	September 2010
Sport and leisure	
Retail	
Travel and tourism	
Humanities and social sciences	September 2011
Languages and international communications	
Science (except at advanced level)	
Science advanced diploma	September 2012

- 5.5 The diploma is designed as a multi-tiered qualification and is intended to appeal to learners of all abilities (see Table 1 on page 6)<sup>10</sup>. It will therefore be available at three levels within the national qualifications framework for England:
  - Level 1: the foundation diploma is equivalent to a programme of study for four or five GCSEs at grades D-G, and can be started in Year 10 or above;
  - Level 2: the higher diploma is equivalent to a programme of study for six or seven GCSEs at grades A\* to C, and can be started in Year 10 or above;
  - Two options at level 3:
    - Option 1: the progression diploma is equivalent to two and a half A-levels. This may be chosen by students who would like to combine a diploma with another qualification and can be started in Year 12 or above. The progression diploma will attract a maximum of 350 UCAS tariff points;

- Option 2: the advanced diploma is equivalent to three and a half A-levels and can be started in Year 12 or above. The diploma will attract a maximum of 490 UCAS tariff points.
- **5.6** In addition the **extended diploma** will be introduced from 2011. This is a larger programme of study within the diploma framework to cater for students who currently undertake four or more A-levels, or their equivalent.
- **5.7** Each diploma comprises three main components:
  - principal learning: to develop knowledge, understanding, skills and attitudes relevant to the subject of the diploma. This is unitised, with grades awarded for each unit. Assessment will include an external examination which accounts for 50 per cent of the total;
  - additional and specialist learning: to provide a range of options that either broaden (additional) or deepen (specialist) learning;and
  - generic learning and core skills: to demonstrate ability in a range of skills, from functional skills in English, mathematics and ICT to a range of personal, learning and thinking skills. The generic learning will include the extended project qualification.
  - Diplomas will also include a minimum of 10 days' work experience at each level.

## **Diplomas and the UCAS tariff**

- **5.8** The three level 3 diplomas have been submitted for tariff assessment to UCAS. The following maximum tariff scores have been assigned to them:
  - Progression diploma: comprising principal learning and generic learning – 350 points;
  - Advanced diploma: comprising principal learning and generic learning – 350 points, plus additional and specialist learning – 140 points: total 490 tariff points;
  - Extended diploma: the extended diploma will comprise a greater amount of principal learning and allow more additional and specialist learning, and is expected to be the equivalent of four and a half A-levels.

## **Diploma development**

5.9 The development of the diploma qualification has taken a very different course to general qualification development. Diploma development partnerships (DDPs) were set up by the sector skills councils, bringing together a wide range of stakeholders across a particular line of learning. The DDPs, and their sub-groups, developed and then consulted on the content of diplomas (referred to as 'line of learning statements') with schools, colleges and higher education, before submitting them to the Qualifications and Curriculum Authority for approval. After this they went to the awarding bodies for the development and accreditation of the specifications.

## Table 3:

#### **Diploma structure**

principal learning	generic learning	additional and specialist learning
sector-related or subject-based mandatory 50 per cent applied newly-developed unitised qualification	functional skills: English, maths, ICT work experience (min. 10 days) project personal, learning and thinking skills	complementary learning, adding breadth or depth progression pathways choice

Source: DCSF/QCA 1

- **5.10** Each DDP was required to ensure that there was higher education involvement in the development of the diploma specifications, and this took place in several ways. Some DDPs ensured that there was higher education involvement in the main DDP boards, with the chair sometimes being someone in higher education. Other boards had specific higher education sub-groups, which provided advice and critical support to the diploma development. All DDPs have consulted higher education.
- **5.11** As diploma development has progressed, the involvement of higher education has increased, with the greatest input from the sector being in the three most recently developed diplomas in phase 4 (humanities and social science, languages and international communication, and science).
- **5.12** Higher education's influence can be seen in the content of diplomas - this was especially so in the engineering advanced diploma. At first the content of principal learning was criticised as lacking enough mathematics to prepare a student properly to study engineering at degree level. Representatives of the Engineering Professors' Council, individual universities, the Royal Academy of Engineering, the Maths Task Group and the Engineering Council UK helped to develop the 'mathematics for engineering' unit, which is now offered by OCR (Oxford Cambridge and RSA Examinations)<sup>11</sup>. The unit is suitable for use as additional and specialist learning within the diplomas in engineering, construction and the built environment, and manufacturing. More recently universities engaging with the development of the advanced level science diploma have raised issues around whether the proposed content was fit for purpose in terms of progression to higher education. It has recently been announced that the diploma will be introduced in September 2012, a year later than planned, to allow for further development with involvement from the sector.
- **5.13** Also recently announced have been the findings of the work undertaken by UCAS on the acceptability of diplomas for admittance to university. The top line figures from this work show that around 80 per cent of courses in UK universities include the diploma with the admissions requirements for 2010. This ranges from 78 per cent acceptance for the creative and media and society health and development diplomas to 82 per cent for the engineering diploma.

## **Diploma delivery**

- 5.14 As large composite programmes which all learners in England will be entitled to begin from 2013, the diploma has required a different approach to delivery as it is unlikely that a single school will be able to offer the full range of teachers and equipment. The Government has therefore invited institutions to form themselves into consortia and to engage in an application process called the 'gateway'. They comprise several sorts of organisation: schools, colleges, employers and universities that can offer the full range of opportunities required by a diploma. This may result in students studying in more than one place, and undertaking 'diploma days' in an institution other than their own. For the second phase of diploma delivery, 79 universities were named as consortium members for diploma delivery.
- **5.15** In phase 1, there are 145 consortia delivering diplomas across England. Enrolment on diploma programmes for 2008 has been limited with around 12,000 students entering, predominantly on the level 2 programmes. Numbers enrolling in September 2009 are expected to rise significantly as phase 2 diplomas come onstream. The gateway process has resulted in the approval of 312 centres for phase 2. The same application process will be used in phase 3.

## **Functional skills**

- **5.16** Functional skills are those elements of English, mathematics and ICT that provide an individual with the essential knowledge, skills and understanding that will enable them to operate confidently, effectively and independently in life and at work. They will be available in England for both young people and adults, as a stand-alone qualification or as an award incorporated into diplomas and apprenticeships. They will replace key skills from 2010.
- 5.17 The White Paper on 14–19 education and skills (2005) stated that all students should achieve functional skills while in education. The objective was that, in achieving GCSEs, a student would also achieve competence in functional skills. All students will be taught functional skills during their GCSE programmes, but they can also be examined separately. Stand-alone functional skills qualifications are currently being piloted and will be available nationally from 2010. To be awarded a diploma, a student must have achieved functional skills qualifications in English, Maths and ICT. Secondary schools will teach functional skills throughout the curriculum from 2010 and they will be embedded and assessed in GCSE English, Maths and ICT from 2010.



## The extended project qualification

- **5.18** Extended projects have been developed very much with the requirements of higher education in mind. They focus on the need to equip young people with the learning skills that will prepare them well for study at higher education level. The aim of the extended project is to strengthen programmes of study for 16–19 year olds at level 3 so as to develop and test a wider range of higher level skills than existing qualifications. This preparation will be useful for them not only for higher education, but also for progression to work. The extended project will offer students an opportunity to produce an extended piece of work, either in an area that they are already studying, or in which they have a particular interest.
- 5.19 The extended project is an optional qualification that can be offered alongside A-levels. Many schools and colleges in England have already embraced the qualification enthusiastically but others are waiting for the reactions of higher education before committing to it. The extended project is a fully funded qualification and although not currently included in the qualification entitlement for young people, should be available to them. However, the extended project is a compulsory component of the diploma, described below, which should help to ensure that it is widely available.

- **5.20** An extended project is equivalent in size to half an A-level and equivalent in standard to a full A-level. The qualification has undergone three years of piloting and the first main awards will be made in 2009, so this year some students with A-levels may enter higher education with an award for an extended project.
- 5.21 The extended project requires students to: devise, design and plan the project research, critically select, organise and use information, select and use a range of resources, analyse data, apply findings and demonstrate understanding of any links, connections and complexities of the topic selected, and use a range of skills to carry out the project and achieve planned outcomes. There is a taught element, to guide students in skills such as research methods and management of their project, plus mentoring and supervision of the student's progress.
- **5.22** The outcome of the extended project could be, for example:
  - a design;
  - a report with findings from an investigation or field study;
  - a dissertation presenting an argument;
  - an artefact;
  - a performance.
- **5.23** As with A-levels, extended projects are graded A\* to E, and will attract a maximum of 70 UCAS tariff points. The school assesses the project, with external moderation by awarding bodies.

## **Curriculum reform in Wales**

6.1 The Welsh Assembly Government is committed to transforming 14–19 provision in Wales. Its aim is to have 95 per cent of young people, by the age of 25, ready for high skilled employment or higher education by 2015. The key documents are: *Learning pathways 14–19; Proposals for a learning and skills measure 2008* (currently out for consultation); and *The Welsh Baccalaureate*.

## Learning pathways 14–19

- 6.2 Learning pathways 14-19 is a commitment from the Welsh Assembly Government in 2002 to transform learning provision for all young people in Wales. Learning pathways 14-19 guidance<sup>12</sup> addresses the need for a more flexible and balanced approach to the education of 14–19 year olds, providing a wider range of experiences to meet the needs of Wales' young people. It aims to encourage more young people to achieve their potential so they are better equipped for the world of work and to become better informed, and more active, citizens. The Welsh Assembly Government through these measures aims to contribute to an improvement in gualifications, help more 16 year olds progress to further education and training, and also widen choice, promote equality of opportunity and support the achievement of *extending entitlement*<sup>13</sup>. Extending entitlement is the Welsh Assembly Government's flagship policy for youth support services in Wales. It includes all services for young people between the ages of 11 and 25.
- **6.3** The reforms, known as learning pathways, consist of six key elements which, in combination, aim to ensure that all learners receive the balance of learning experiences that best meet their needs, as well as support and guidance.

The six key elements are:

- individual learning pathways to meet the needs of each learner;
- wider choice and flexibility of programmes and ways of learning;
- a learning core, which runs from age 14 through to 19 wherever young people are learning
- learning support;
- access to personal support; and
- impartial careers advice and guidance.

## The proposed learning and skills measure 2008

- **6.4** The proposals for a learning and skills (Wales) measure 2008<sup>14</sup> will underpin the Welsh Assembly's Government's policy for 14–19 provision, which has been firmly built on the experience and expertise of practitioners from all sectors of education in Wales. The policy has been developed in partnership with stakeholders, beginning with *The learning country*<sup>15</sup> in 2001, and recently reinforced in *The learning country: vision into action*<sup>16</sup> in 2006.
- **6.5** The policy will ensure that learners of all abilities aged 14–19 can choose from a wide range of applied and general programmes, and from a number of collaborative options. Learners will receive wider experiences and opportunities including the development of key skills. They will also have access to both learning and personal support and to careers information, advice and guidance.

## **The Welsh Baccalaureate**

**6.6** The Welsh Baccalaureate combines personal development skills with existing qualifications such as A-levels. NVQs and GCSEs to make one wider award. The Welsh Baccalaureate qualification is nationally approved and currently offered at foundation, intermediate and advanced levels. Following a successful pilot started in September 2003, the qualification is now being studied by students across Wales at advanced and intermediate levels. The foundation level is currently part of a pilot scheme operating from 2006–09. Schools, colleges and private training providers are involved. The qualification provides broader experiences than traditional learning programmes, to suit the diverse needs of young people. It can be studied in English or Welsh, or a combination of the two languages. The Welsh Baccalaureate prepares students for work or university, helping them to develop their key skills, and also gives them a range of positive experiences in the community and with employers.

Diagram 1: The Welsh Baccalaureate



## The qualification

The Welsh Baccalaureate qualification consists of two parts:

**Core** – comprising four components: key skills; Wales, Europe and the world; work-related education; personal and social education.

**Options** – courses/programmes currently offered, such as GCSE, VGCSE, AS/A-levels, VCE, NVQ and BTEC.

- 6.7 To fulfil the requirements of the qualification students must complete a core programme of activities, along with the options. The core programme helps students to develop key skills through a greater breadth and balance of experience. It improves their existing skills and by taking part in practical activities they can build on their interests learning by doing.
- 6.8 The Welsh Baccalaureate core within the advanced diploma attracts 120 UCAS points the equivalent of an A grade at A-level. The options qualifications can earn additional UCAS points and are included in university offers. In terms of schools' performance information, the Welsh Baccalaureate intermediate diploma core is broadly worth three GCSEs, at A\*–C grade. However, its value is better measured in terms of the capabilities it gives to students, and employers are increasingly recognising its value.
- **6.9** The four components of the core programme are:
  - key skills communication, working with others, problem solving, ICT, application of number, and improving own learning and performance;

- Wales, Europe and the world a chance to learn more about Wales and its relationship with Europe and the world; this includes a language module at a level suitable for the student;
- work-related education includes working with an employer and taking part in a team enterprise activity to help understand how businesses work; and
- personal and social education explore issues in the modern world: family, health, relationships, citizenship and sustainable development, plus an activity in the local community.
- **6.10** There is also the option of an additional component entitled 'individual investigation' an opportunity to carry out personal research into an area of interest from optional studies or the core programme.

## **Curriculum reform in Scotland**

- **6.11** The Scottish Government has undertaken a major review of the curriculum and national qualifications, and proposes to implement curriculum for excellence, which is expected to provide a single curriculum framework for students between the ages of 3 and 18. Planning for the new curriculum is well under way with the guidance for teachers formally launched in April 2009 and first certification of the new qualifications due to take place in 2014.
- **6.12** The main aspiration of curriculum for excellence is to provide a structure for developing four capacities:
  - successful learners;
  - confident individuals;
  - effective contributors to society;
  - responsible citizens.
- **6.13** The curriculum for excellence will impact on national qualifications in the following way:
  - Access, highers and advanced highers will remain as points of stability with the qualifications framework; however the Government has tasked the Scottish Qualifications Agency with reviewing all national qualifications to ensure that they are fit to deliver the main aims of curriculum for excellence;
  - Highers will remain the 'gold standard' of the Scottish education system ;

- A new qualification will replace the present standard grade general and credit levels and intermediate levels 1 and 2 (Scottish Credit and Qualifications Framework (SCQF) levels 4 and 5) qualifications;
- New awards in literacy and numeracy will be available at SCQF levels 3 to 5;
- New Scottish Baccalaureates in science and languages have been developed with first certification in 2010. These awards are made up of highers, advanced highers and an interdisciplinary project.
- 6.14 Decisions on such issues as the name of the replacement qualification for standard grade / intermediates, or the bypassing of lower level qualifications will be announced before the end of the current academic year (2008/09). Further guidance will be released following the Government's announcement.

#### **Curriculum reform in Northern Ireland**

6.15 The Northern Ireland Department for Employment and Learning and the Department of Education are seeking to coordinate their approach to 14–19 provision. Such provision, whether at school, further education college or a training organisation, must enable young people to acquire qualifications that will lead to further and higher education, training or employment.

## Qualifications

- **6.16** As in England, most general and vocational qualifications currently sit within the national qualifications framework. As part of the vocational qualifications reform programme, a new qualifications and credit framework is being developed. The framework has been designed to be inclusive and flexible and the longer term aim is to achieve a common framework that accommodates all qualifications.
- **6.17** The nature of general qualifications, such as general certificate of secondary education (GCSE) and general certificate of education (GCE), and the new diplomas in England, will raise issues about their inclusion within the qualifications framework.

#### The entitlement framework

- **6.18** The entitlement framework aims to guarantee all pupils aged 14 to 19 access to a wide range of learning opportunities suited to their needs, aptitudes and interests. The rationale for the entitlement framework is to ensure that all pupils have equal access to a broad range of subjects. Schools will have the opportunity to tailor their curriculum better to fit the needs of all pupils, giving them access to a minimum number of courses, regardless of location or establishment of study.
- **6.19** The framework is the counter-balance to the reduced core curriculum at key stage 4 and will ensure that pupils have more equal access to a broad range of courses, including greater balance between general (academic) and applied courses.
- **6.20** From September 2013, Northern Ireland's schools will be required to provide all pupils with access to a minimum number of courses at key stage 4 (the current target is 24) and the minimum number of courses beyond the age of16 (the current target is 27). In both cases at least a third of the courses must be general courses and at least a third applied courses.
- **6.21** While some schools will be able to deliver the requirements of the framework, many others will have to collaborate with other schools, further education colleges and other providers to offer the full range of courses.

#### , The implications of the reforms for higher education

- 7.1 The implications of the reforms for higher education across the UK are likely to be in the following areas:
  - engaging with the reforms;
  - student recruitment;
  - information, advice and guidance for prospective students;
  - teaching and learning;
  - employability; and
  - university education departments.
- **7.2** The changes to what and how young people learn and how they are assessed before entering higher education will affect the expectations and preparedness of those young people for higher education courses. Their impact on young people will in turn have an impact on curricula, and on learning and assessment methods in higher education.

## **Engaging with the reforms**

- **7.3** Involvement in the development of the reforms from an early stage has meant that higher education has had an opportunity to influence them in several ways: contributing to the design of the new qualifications and lines of learning; responding to consultations; or acting as advocate for the new qualifications.
- 7.4 There is a widely held view that collaboration over the reforms between appropriate prehigher education bodies and universities has been very productive all round. Some universities recognised early on that it would be a good idea to be involved in developing the various reforms and they took a strategic approach to the opportunities.
- 7.5 The government departments and agencies involved all recognised the benefits of involving higher education in the reforms, and made efforts to ensure that there was sector representation on bodies such as diploma development partnerships and the Department of Children, Families and Schools' Higher Education Engagement Board.
- **7.6** For universities the benefits of engagement include:
  - a greater understanding of the content and delivery of new qualifications, and hence the incoming skills and knowledge of students from 2010 onwards; this means they will be better placed to adapt their teaching methods and curriculum;

- an opportunity to forge relationships with pre-higher education institutions and potential future applicants; and
- opportunities to become involved in delivering the new qualifications.
- **7.7** A range of models of university engagement has developed with the aim of promoting different outcomes:
  - involvement in diploma development partnerships to influence the content of diplomas;
  - membership of consortia and providing expertise to schools and colleges offering the diploma
  - development of continuous professional development programmes – some of which are accredited and incorporated in other university qualifications for school and college staff – focusing on skills needed to deliver the new qualifications including the extended project and diplomas;
  - providing student mentors to diploma students;
  - delivery of higher education modules in schools;
  - providing resources and collections for the use of extended project students;
  - providing specialist equipment and/or laboratory space for diploma students;
  - belonging to regional and local advisory bodies for the 14–19 strategy.
- 7.8 Many universities have viewed their involvement, particularly with the diploma, as a means of securing the future enrolments of students. Engagement in activities to develop the diploma has often been approached as a strategic activity aimed at raising the profile of the institution, forging regional and local partnerships and hence having a positive effect on the recruitment of students. Many more 'compact' arrangements and progression accords between universities and the deliverers of diplomas are likely to emerge.

#### **Student recruitment**

- 7.9 The demographic projections outlined in the Universities UK report on the size and shape of the sector<sup>17</sup> indicate that over the next 10 years there will be a decline in the number of young people in the 18-20 age group – the age group that provides over 70 per cent of entrants to fulltime undergraduate programmes. Currently, over 90 per cent of young people holding two Alevels or more enter higher education. In a declining population, this would suggest therefore that if attainment rates remain the same, the number of suitably qualified young people who could potentially enter higher education will decline over the next 10 years. The challenge is to encourage a greater proportion of this age cohort to remain in school or college education so that they achieve level 3 qualifications, and thus mitigate the potential decline in demand for higher education. In the shorter term this will need to be balanced against the current restriction on additional student numbers which places a cap on the number of full-time undergraduate places that will be funded for entry in 2009/10.
- 7.10 In offering a more attractive curriculum, diplomas stand to have a significant impact on the proportion of young people staying in education and training and obtaining level 3 qualifications. This could boost participation rates in higher education although there is no guarantee of this. However, university entrance requirements are a key influence on the educational choices that many young people make and university support is therefore important in ensuring that the reforms result in greater participation in higher education<sup>18</sup>.
- 7.11 Potentially the diplomas could increase demand for programmes in higher education that have been in decline throughout the past 10 years (engineering, physical sciences), and could also provide a new source of demand for programmes yet to be developed.

#### **Supply issues**

- 7.12 As noted above, universities have been actively involved in the development of the new qualifications – they are significant stakeholders as the future recruiters of many of the students who will have studied the new curriculum. The supply of students into key strategic subjects such as science, technology, engineering and languages is an issue in which there has been much interest over recent years. Both these topics give universities a direct interest in ensuring the success of the 14–19 curriculum changes.
- 7.13 The supply chain also affects the take-up of undergraduate qualifications in science, technology, engineering and mathematics (STEM subjects). The limited achievements of school students in mathematics is a major constraint on the take-up of STEM subjects at A-level, a requirement for a STEM university course or professional STEM career. For that reason universities are supporting the work led by the National Council for Educational Excellence, which will examine how schools and universities can work together to improve demand for STEM subjects.
- 7.14 The recent focus on encouraging more young people to study STEM subjects while at school does seem to be showing some signs of success. Entries for A-level mathematics have risen, as have applications for STEM subjects in higher education over the past two years<sup>19</sup>.
- 7.15 The 14–19 diplomas may be an important factor in improving 'supply'. They have been designed to encourage more young people to continue learning for longer and to give them the knowledge, skills and aptitudes that they need to succeed in work and further learning including progression to higher education. The introduction of diplomas in engineering, construction and the built environment, science, and languages and the incorporation of science subjects in other diplomas might boost the numbers of students studying STEM subjects and other shortage subjects at level 3. Such students might well progress to STEM subjects or languages in higher education.

#### **Widening participation**

- 7.16 Underpinning the reforms is the need to engage all young people through a curriculum that provides a range of pathways to further study and employment. Clearly this plays a big part in supporting the aim of widening participation in higher education, an issue that is vital for universities. The higher education sector has long argued that the key to increasing the number of people who have access to higher education is increasing the number of students who stay in education after the age of 16.
- 7.17 The UK has one of the lowest staying-on rates at age 16 in the developed world, with only five other OECD countries reporting lower enrolment figures for 15-19 year olds<sup>20</sup>. Once they achieve the relevant qualifications, students from all socio-economic groups are equally likely to participate in higher education. But only around a quarter of 18 to 19 year olds from lower socio-economic groups achieve two or more A-levels, compared to about half of those from higher socio-economic groups. This demonstrates the importance of raising the levels of attainment for young people.
- 7.18 The legislation to raise the participation age to 18 tackles this issue head on and it has been recognised that the success of this policy rests on the successful implementation of the whole package of 14–19 reforms. The key to ensuring that the curriculum changes lead to wider participation in higher education will be making sure that young people's options are designed in such a way that they can clearly recognise a range of progression routes. Aimhigher, the organisation that acts as a vehicle for collaboration between universities, further education colleges, schools, employers and voluntary groups, has done significant work in this area and is also taking part in the curriculum reforms.

#### **Admissions policies**

7.19 Changes to the 14–19 curriculum and qualifications will mean a review of university admissions policies and entry requirements for all programmes. Those involved with admissions will require an understanding of the new qualifications, their content and delivery to ensure that appropriate decisions are made about entry requirements and how to phrase conditional offers of admission. Universities will need to ensure that the entry requirements that they have for differing qualifications are fair.

- **7.20** There is a need therefore for universities to be clear about their admissions policies, so that young people taking the new qualifications can make appropriate choices. Universities UK has been working with the supporting professionalism in admissions programme (SPA) and UCAS to help universities ensure that their entry requirements to undergraduate courses are transparent and are provided to young people and their advisers in good time.
- 7.21 In recent years some highly selective programmes with high entry requirements have found it difficult to differentiate between the increasing numbers of applicants predicted, and achieving, grade A at A-level. Although the A\* grade might provide an additional differentiating factor, there have been uncertainties over the way in which universities will treat the new A\* grade for entry. Reports<sup>21</sup> appearing in late 2007 and early 2008 suggest that many universities are waiting until the awarding patterns are known before committing to using the new grade. In relation to this, the National Council for Educational Excellence has recommended that the Government should establish base data on the predictability of the new A-level and diploma A\* grade prior to predicted A\* grades being used in the applications process. The National Council is concerned that there is no evidence yet upon which to assess whether the new A\* grade can be predicted with accuracy. In view of this, an evaluation study to assess the reliability of A\* prediction is due to take place in 2009 . The fact that students from selective and independent schools are more likely to attain the A\* grade than those from other schools will potentially have an impact on widening participation and may be a concern for some universities.
- **7.22** These reports also suggest that having the extended project qualification might help to select applicants, or show admissions staff what skills applicants had acquired.

#### Information, advice and guidance

7.23 The higher education market is driven by student demand, and the factors that affect student choice are therefore critical to the take-up of courses that will generate the graduates the economy needs. Potential applicants need highquality, targeted information, advice and guidance when making their choices for AS and A-levels. Advice and guidance to students at all stages of careers, opportunities and progression routes needs to be better.

- 7.24 Ensuring access to impartial and high-quality advice for all young people is another key aim in the 14–19 reforms. From 2008 responsibility for the delivery of all local information, advice and guidance was passed to local authorities. Local area prospectuses will not only have to meet the quality standards for information, advice and quidance, but will also provide full information about education and training opportunities. From 2010, this will also be linked to a common application process, which will allow applications to education and training from level 1 to level 3. A review conducted by the National Audit Office suggests that improved information, advice and guidance would help to reduce issues around student retention once in higher education and would help improve widening participation. In addition, the National Student Forum has raised the importance of information, advice and guidance and has proposed that consideration should be given to a 'first point of call' portal which would bring together the full range of information potential applicants would need to make informed choices. UCAS is taking this forward with support from the National Union of Students.
- 7.25 Universities are working with the Department of Innovation, Universities and Skills and DCSF to improve the provision of information, advice and guidance, and specifically the information about higher education that is offered to students at school key stages 2 and 3 (in late primary and early secondary education). The National Council for Educational Excellence specifically highlights the need for primary and secondary schools and colleges to be enabled to provide better STEM (particularly maths) skills to young people to ensure that those taking STEM courses at a higher level are not constrained by a lack of capacity of inappropriate information, advice and guidance.
- 7.26 In addition to the focus on information, advice and guidance as described above, we are also aware that the government is currently looking at the overall advice strategy in support of the legislation to raise the participation age. Universities UK is supportive of the need to ensure a holistic approach as we are concerned to ensure that policy in this area is consistent.

#### **Preparedness for higher education**

- **7.27** Some of the detail of the reforms appears to be designed to address public and higher education concern about rigour, standards and the level of preparedness of young people progressing to higher education since the last curriculum and qualification reforms in 2000. The emphasis on skills acquisition should have an early benefit to higher education, but may have implications for how degree programmes are taught and assessed.
- 7.28 A higher proportion of young people will have attained functional skills (English, mathematics and ICT) prior to entry to university, and this should be evident among undergraduates, especially diploma holders whose award depends on achievement of functional skills at level 2. The 'personal, learning and thinking skills'<sup>22</sup> embedded within diplomas and more widely in many school curricula, as well as those within the extended project (described above), are also useful preparation for higher education.
- **7.29** Students will have undertaken more extended writing, research and analysis than has previously been the case. The type of practical work in A-levels may have changed, and those involved in diplomas with technical content may have considerably more experience of working with specialist equipment.
- **7.30**Recent adaptations of higher education programmes in the first year to support the transition to university may need to change again to accommodate the learning styles of young people entering from the reformed programmes. If the reforms are able to deliver on providing a broader base of skills, it is possible that in time the reforms will allow institutions to concentrate on higher-level activities where perhaps there was not room in the curriculum before.

#### Higher education curriculum content

7.31 As with admissions policies, there is a need to ensure that those involved in the planning of university curricula, particularly for first year students, are familiar with the content and assessment methods of the new qualifications. The implications of the reforms for what young people will know when they enter higher education will vary across subject areas. Some A-level programmes have changed significantly, others less so. During the diploma development process, some higher education teachers have been surprised to find that some diplomas contain content and learning outcomes similar to those which their first-year undergraduates experience. Where university programmes require particular subject knowledge as a prerequisite, the specifications of the revised and new qualifications will therefore need to be considered carefully to ensure that first year degree programmes mesh properly with them.

## Assessment

**7.32** After the reforms, assessment methods will be different, and there will be more of a requirement for extended writing. Holders of diplomas will have experienced less formal examination-style assessment than those on a pure A-level programme, but the incorporation of A-levels within the additional and specialist learning component of diplomas will provide this experience for young people, should they choose this route.

## **Student employability**

- **7.33** The UK economy is going through difficult times, and the preparation of young people for the future job market is increasingly important. Higher education, in collaboration with business, has an important responsibility in ensuring that students acquire skills that will equip them for the changing world of work.
- 7.34 The CBI and Universities UK joint report, *Future fit* (March 2009)<sup>23</sup>, illustrates how universities and business can work together to help equip graduates for their future working lives.
- **7.35** The diploma programmes require the involvement of business and industry, not only in designing the curriculum but also in providing work experience and extended project opportunities for students. There could potentially be greater collaboration with business and industry through these contacts.

- 7.36 Many students already have experience of working. Increasingly, students enter higher education when they have already worked for a few years, and many students combine work and study. Universities can help even those students with extensive work experience develop their skills to make them more attractive to employers.
- **7.37** Young people who have undertaken diploma programmes will have had more experience of work-related activities and skills that employers value. Direct involvement in diploma consortia can provide opportunities for universities to influence what is covered during a diploma programme, and might affect the nature of employer engagement activities within higher education institutions.

#### **University education departments**

- **7.38** The Training and Development Agency has been working with Lifelong Learning UK to produce a framework of professional development for the school and college staff who will deliver the diplomas. This work has included:
  - preparing a draft strategy for continuing professional development for the diploma workforce;
  - developing support materials for information, advice and guidance in schools in the light of the 14–19 reforms;
  - developing materials and guidance for the effective deployment of support staff in diploma delivery; and
  - supporting pilot short courses to update existing staff on the reforms and working closely with other partners with responsibility for 14–19 workforce development to revise the training needs analysis tools – this aspect of the Training and Development Agency's work has now finished.
- **7.39** The Training and Development Agency has also set out its plans for integrating 14–19 diplomas into initial teacher education as three strands:

## Strand 1

From 2007 qualified teacher status standards have required everyone training to teach at key stage 4 and above to demonstrate knowledge and understanding of the diplomas. All providers of secondary initial teacher education are in receipt of extra ringfenced funding for development work involved in the introduction of the diploma. The Training and Development Agency will allocate £1 million, depending on how many secondary training places colleges are offering.

#### Strand 2

In April 2008, the Training and Development Agency invited providers of initial teacher education to bid for a 'diploma experience' option in 2008/09 and 2009/10 to give secondary trainees additional enhanced experience of diplomas and the wider applied learning as part of their course. Over the two-year period, 2009-2011, the agency intends to fund this for 2,795 trainees.

#### Strand 3

From 2008/09 the Training and Development Agency is offering 75 secondary initial teacher training places per year that will focus specifically on the 14–19 diploma. The agency will also ask secondary providers that have allocated places in existing secondary vocational subjects to start converting these places (400) to 14–19 diploma specific places from 2009/10 onwards.

**7.40** Universities UK has been highlighting the need to ensure that higher education teacher education departments are included within the communication campaigns on the curriculum reforms. University providers are important stakeholders in the curriculum reforms as providers of future teachers and continuing professional development to support the prehigher education education workforce in adapting to the changes.

- 8.1 The reforms are wide-ranging and have a great potential impact on higher education in the UK. Universities UK recommends higher education institutions to get to grips with the details and assess their likely impact on their own student recruitment, teaching and learning, so that they can respond appropriately.
- **8.2** The reforms do have the potential to provide students with the skills and attributes that higher education institutions have said they would like to see from an improved secondary education system, but realisation of the aspirations will require the continued involvement and support of the higher education sector.

- 1 Paraphrased from DCFS website
- 2 DfES (2005) 14-19 education and skills: Government White Paper available at: http://www.dfes.gov.uk/publications/14-19educationandskills
- 3 Paraphrased from DfES (2005) 14–19 education and skills summary page 1/2 available at: http://www.teachernet.gov.uk/\_doc/13097/14-19%20Education%20and%20Skills%20summary.pdf
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- 6 DfES (2005) 14-19 *education and skills: Government White Paper* available at: http://www.dfes.gov.uk/publications/14-19educationandskills
- 7 Nuffield (2006) 14–19 review third annual report available at http://www.nuffield14-19 review.org.uk/
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- 9 Adapted from DfES (2005) 14–19 education and skills summary page 4 available at: http://www.teachernet.gov.uk/\_doc/13097/14-19%20 Education%20and%20Skills%20summary.pdf
- 10 Balls speech/briefing 070308
- 11 http://www.ocr.org.uk/Data/publications/key\_documents/ OGQ\_Maths\_Eng\_L3\_Cert\_Spec.pdf
- 12 Learning pathways 14-19 guidance published in summer 2004 following consultation
- 13 Extending entitlement: supporting young people in Wales (2000) available at: http://wales.gov.uk/topics/educationandskills/ policy\_strategy\_and\_planning/extendingentitlement/ eepublications/ supportyoungpeople
- 14 Welsh Assembly Government (2008), *Proposals for a learning and skills measure (Wales)* available at: http://new.wales.gov.uk/docrepos/40382/4038232/403829/ Consultations/1901302/Proposals\_for\_a\_Learning\_an1.pdf; jsessionid= pZ4HJrzVvGJbSVZ2N1tLdQTc6nsWTWFnX6s4n GQLQLr3GJq Jcgtv!1116311810?lang=en

- 15 Welsh Assembly Government (2001) *The learning country* 2001 A Comprehensive Education and Lifelong Learning Programme to 2010 in Wales available at: http://wales.gov.uk/dcells/publications/ publications/guidanceandinformation/learningcountry/ learningcountry-e.pdf?lang=en
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- 17 Ramsden, B and Brown, N (2008) The future size and shape of the higher education sector in the UK: demographic projections, Universities UK available at: http://www.universitiesuk.ac.uk/ Publications/Documents/size\_and\_shape.pdf
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- 20 OECD (2007) Education at a glance, TableC2.1 available at: http://www.oecd.org/dataoecd/4/55/39313286.pdf
- 21 1994 Group (2008) New foundations, enduring values (2007); 14–19 Qualification Reform: the A\* and Extended Project: An investigation to determine their potential use in admissions to higher education (Chambers and Lewis)
- 22 PLTS: Independent enquiry, creative thinking, reflective learning, team working, self-management, effective participation as identified in national curriculum
- 23 Universities UK/CBI (2009) Future fit: preparing graduates for the world of work



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This publication has been produced by Universities UK, which is the representative body for the executive heads of UK universities and is recognised as the umbrella group for the university sector. It works to advance the interests of universities and to spread good practice throughout the higher education sector.

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