



Department
for Education

Consultation Response Form

Consultation closing date: 29 January 2016
Your comments must reach us by that date

Consultation on Implementing the English Baccalaureate

If you would prefer to respond online to this consultation please use the following link: <https://www.education.gov.uk/consultations>

The government is consulting on proposals to implement the EBacc manifesto commitment. This consultation gives the teaching profession and others with an interest in education the opportunity to help shape policy.

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes, primarily the Freedom of Information Act 2000 and the Data Protection Act 1998.

If you want all, or any part, of your response to be treated as confidential, please explain why you consider it to be confidential.

If a request for disclosure of the information you have provided is received, your explanation about why you consider it to be confidential will be taken into account, but no assurance can be given that confidentiality can be maintained. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department will process your personal data (name and address and any other identifying material) in accordance with the Data Protection Act 1998, and in the majority of circumstances, this will mean that your personal data will not be disclosed to third parties.

Please tick if you want us to keep your response confidential.	<input type="checkbox"/>
Reason for confidentiality:	

Name: Claire Donovan	
Please tick if you are responding on behalf of your organisation.	<input checked="" type="checkbox"/>
Name of Organisation (if applicable): Education for Engineering (E4E)	

Address: c/o Royal Academy of Engineering
3-4 Carlton House Terrace
London
SW1Y 5DG

If your enquiry is related to the DfE e-consultation website or the consultation process in general, you can contact the Ministerial and Public Communications Division by e-mail: consultation.unit@education.gsi.gov.uk or by telephone: 0370 000 2288 or via the Department's ['Contact Us'](#) page.

Please insert 'X' into one of the following boxes which best describe you as a respondent.

<input type="checkbox"/> Teacher	<input type="checkbox"/> Headteacher or school leader	<input type="checkbox"/> Parent or carer
<input type="checkbox"/> Employer/Business Sector	<input type="checkbox"/> Organisation representing school teachers	<input type="checkbox"/> Pupil
<input type="checkbox"/> Local Authority	<input type="checkbox"/> Subject Association	<input type="checkbox"/> Governor
<input type="checkbox"/> Other (please specify)		

Comments:

Education for Engineering (E4E) is the body through which the engineering profession offers coordinated advice on education and skills policy to UK Government and the devolved Assemblies. It deals with all aspects of learning that underpin engineering. It is hosted by The Royal Academy of Engineering with membership drawn from the professional engineering community including all 35 Professional Engineering Institutions, Engineering Council and EngineeringUK.

If you indicated that you are a teacher, headteacher, school leader or governor, please indicate what type of school

<input type="checkbox"/> Local authority maintained school	<input type="checkbox"/> Academy mainstream school or academy chain	<input type="checkbox"/> College, FE or HE institution
<input type="checkbox"/> Special school	<input type="checkbox"/> Alternative provision or pupil referral unit	<input type="checkbox"/> University technical college
<input type="checkbox"/> Studio school	<input type="checkbox"/> Other (please specify)	

Please Specify:

Pupils in scope

1 What factors do you consider should be taken into account in making decisions about which pupils should not be entered for the EBacc?

Comments:

This policy is not a suitable solution to England's skills, productivity or NEET issues. It attempts to annex the idea of a baccalaureate by grafting a performance measure onto a separate subject system at KS4. The engineering community has at every stage advised against the implementation of the EBacc.

We note that the Secretary of State stresses the importance of an 'understanding of the history and geography of the world they inhabit, its workings as revealed by the findings of science, and a grasp of languages other than their own.'

While we do not disagree with this, we think that KS1-3 provide this underpinning.

There is no good evidence presented that history and/or geography are more valuable than subjects not on the EBacc list, and their inclusion along with languages seems to be based on a skewed perception of the Russell Group's facilitating subjects list. Indeed, the Russell Group comment as follows in their [FAQ](#) about this:

The English Baccalaureate includes academic subjects highly valued by the Russell Group but it is not required for entry to any Russell Group university. With the exception of English and Maths, and in a few cases a Modern Foreign Language, most universities have no universal entry requirements in terms of specific GCSE subjects. Subject choice is ultimately much more important at the post-16 or A-level stage.

In particular we are concerned about the side-lining of creative subjects including art and design, and design & technology. For example, the Institution of Civil Engineers (ICE) runs a prestigious scholarship for the brightest and best, with 400 applicants every year. Sampling half these applications in 2014, 36.5% studied a creative or design subject to AS/A Level, and 67% combined arts and STEM at GCSE. This has been typical over the past six years.

Engineering needs people who have leadership qualities as well as technical competence. We have found that leadership is linked to creativity – one must be creative to bring-about positive change. We believe that the UK is good at Engineering (and other things) partly because of a culture of creativity. UK Engineering is characterised by great leadership. Therefore, any narrowing of the student experience – any side-lining of creative subjects – will result in a watering-down of the strength of leadership.

The building services engineering professions as represented by CIBSE have no doubt of the crucial place of design and technology in the curriculum. Budding engineers can only be made by seeing how mathematics and the sciences (which often have too little 'applied' content in their delivery in schools) actually come to life when harnessed to a real world project in D&T. CIBSE and indeed the whole E4E community have already declared their support for D and T through the 'Designed and Made in Britain'...? campaign.

In his 2015 Presidential Address to the Institution of Structural Engineers, Professor Tim Ibell, Associate Dean of the Faculty of Engineering and Design at the University of Bath said: “We should all be placing at the very forefront of our message to school children the fact that structural engineering is a tremendously creative, exciting and fun career; before we mention anything to do with numbers, we should be fuelling the concept that creative problem-solving is the real core of structural engineering.” This speech set the agenda for the potential changes to the core undergraduate civil engineering curriculum referred to below.

Many of our most gifted engineers have therefore been on 14-16 programmes that would fail to meet the EBacc measure. We have no doubt that creative subjects provide a gateway into engineering – indeed this is what young people tell us at interview, and ICE joined with the Creative Industries Federation in the launch of its Creative Education Agenda to urge that creative subjects need to be foregrounded to promote a broader approach to STEM:

(http://www.creativeindustriesfederation.com/assets/userfiles/files/CIF_EduAgenda_spreads.pdf)

Furthermore, in the light of concerns about the narrowing of student experience, the Association of Civil Engineering Departments, which includes all but three of the Russell Group, is working with the professional bodies that accredit degree programmes to establish a creative approach to design more effectively in undergraduate programmes.

These concerns are raised, in part, by the decline in design & technology at GCSE. While the government has argued that the numbers taking one arts subject at GCSE has [increased by 1%](#), this masks a decline in many individual subjects. Moreover this figure does not include subjects in the Design & Technology category, which since the loss of statutory status in 2004 and the introduction of the EBacc has seen a decline of 50%, with a 29% fall in the last 5 years cited by the [Edge Foundation's response](#) to this consultation. The broadening of the EBacc to include 90% of the school population, together with the operation of Progress 8, will further exacerbate this situation, particularly for those students taking 7 GCSEs or fewer. The Edge Foundation in its submission has estimated that 'to meet the 90% target, 225,000 students would have to drop one of their options in favour of a foreign language, and 136,000 would have to drop one of their options to take either history or geography.'

If the Government is serious about addressing the STEM skills shortage in England, and the UK, it should take note that the Institution of Mechanical Engineers, in its report '[When STEM? A Question of Age](#)', found that interest in STEM subjects falls away after the age of 11, when STEM subjects lose their practical application. If the Ebacc adds to this by not foregrounding the in depth study of STEM subjects,

interest will further diminish.

We are therefore of the opinion that there should be no presupposition that students must take the EBacc.

We are also concerned about the suggestion that schools may not be able to achieve an Ofsted Outstanding grade if they fail to comply. This would be an unwarranted degree of interference in the operations and decisions of an independent inspectorate.

Accountability for meeting the EBacc commitment

2 Is there any other information that should be made available about schools' performance in the EBacc?

Comments:

It would be helpful to see which schools do not mandate the EBacc.

2 How should this policy apply to UTCs, studio schools and further education colleges teaching key stage 4 pupils?

Comments:

If the policy does not apply equally to all settings, then it is a flawed policy based on no serious education principles nor any evidence base. Indeed there would be insurmountable recruitment issues for these settings.

The policy should not therefore apply to UTCs, studio schools and further education colleges. Equally it should not apply to mainstream schools and academies.

The Comino Foundation recently published an evaluation of the JCB Academy. Their findings suggest that this exemplary institution has managed to convince parents and students that the EBacc is not the only approach which should be available for 14-16 year olds. However, many other UTCs are struggling to fill places, partly because comparisons with other local schools suggest lower attainment.

It is curious that the EBacc's emphasis on 'academic, humanities' subjects appears to be focused on meeting Russell Group university requirements, but this does not seem to fit in with the Government's 3 million apprenticeship target. Geography, History and Foreign Languages would only be a requirement for a minority of entries to apprenticeships, and for STEM employers D&T GCSE is particularly useful. We are already seeing progression from UTCs into engineering apprenticeships, and we hope to see much more. However, if UTCs are forced into the EBacc reporting structure, they must either reduce technical content (reducing supply into technical apprenticeships), or risk their performance ratings and Ofsted outcomes.

Implementation

4 What challenges have schools experienced in teacher recruitment to EBacc subjects?

Comments:

Ofsted (2015) report that 50% of heads in affluent areas could not recruit enough good staff rising to 77% in challenging areas.. 61% of heads in these poorer areas had to rely on "temporary arrangements to cover for maths or science.

Shortfalls in Maths and Physics are well-known (see below), but we are also concerned with subjects outside the EBacc - the shortfall in Design & Technology teachers is critical, and there is a serious danger that the subject's exclusion from the EBacc and the unsurprising difficulties in recruitment may result in an irretrievable spiral of decline in the teaching of the subject.

STEM Teacher Recruitment	Physics	Design Technology	Maths
2014/2015 recruitment target	985	1030	2495
Actual numbers	661	450	2186
Shortfall	324	580	309
Shortfall %age	33	56	12

NCTL (National College for Teaching and Leadership) Census: Teach First figures for 2015 are not currently collected by the NCTL survey

This would be disastrous for the engineering profession. It is in Design & Technology that many

young people have the chance to combine academic rigour with practical, 'applied' activity. It is a very popular subject, but students will not be able to choose it beyond 14 if specialist teachers are not available, and if the school's subject choice 14-16 is focused on EBacc.

5 What strategies have schools found useful in attracting and retaining staff in these subjects?

Comments:

We have no comment.

6 What approaches do schools intend to take to manage challenges relating to the teaching of EBacc subjects?

Comments:

We would hope that schools resist the EBacc challenge, not only because there is no basis for its introduction, but also because it would be difficult to deliver a curriculum for which there is an under-supply of staff, particularly foreign languages.

A similar approach to mandate GCSE English and Mathematics in the FE Sector, without the qualified staff to implement it, has been a resounding failure.

7 Other than teacher recruitment, what other issues will schools need to consider when planning for increasing the number of pupils taking the EBacc?

Comments:

Schools will need to consider whether the EBacc in fact narrows students' options particularly in areas such as engineering and the creative and digital industries which make a significant contribution to rebalancing the economy.

8 What additional central strategies would schools like to see in place for recruiting and training teachers in EBacc subjects?

Comments:

We have no comment.

9 Do you think that any of the proposals have the potential to have an impact, positive or negative, on specific students, in particular those with 'relevant protected characteristics'? (The relevant protected characteristics are disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation.) Please provide evidence to support your response.

Comments:

As stated above, 36.5% of the best civil engineering scholarship applicants have pursued a creative or design subject at AS/A Level. Of this figure nearly half (45.6%) were female – we have serious concerns that the work the engineering community has put into attracting females into the industry may be derailed by the EBacc, if schools implement it as rigidly as this consultation proposes.

Thank you for taking the time to let us have your views. We do not intend to acknowledge individual responses unless you place an 'X' in the box below.

Please acknowledge this reply.	X
E-mail address for acknowledgement: claire.donovan@raeng.org.uk	

Here at the Department for Education we carry out our research on many different topics and consultations. As your views are valuable to us, please confirm below if you would be willing to be contacted again from time to time either for research or to send through consultation documents?

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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All DfE public consultations are required to meet the Cabinet Office [Principles on Consultation](#)

The key Consultation Principles are:

- departments will follow a range of timescales rather than defaulting to a 12-week period, particularly where extensive engagement has occurred before
- departments will need to give more thought to how they engage with and use real discussion with affected parties and experts as well as the expertise of civil service learning to make well informed decisions
- departments should explain what responses they have received and how these have been used in formulating policy
- consultation should be 'digital by default', but other forms should be used where these are needed to reach the groups affected by a policy
- the principles of the Compact between government and the voluntary and community sector will continue to be respected.

If you have any comments on how DfE consultations are conducted, please email: consultation.unit@education.gsi.gov.uk

Thank you for taking time to respond to this consultation.

Completed responses should be sent to the address shown below by 29 January 2016

Send by post to: Maleck Boodoo, Curriculum & Standards Division, Department for Education, Sanctuary Buildings, 20 Great Smith Street, London, SW1 3BT

Send by e-mail to: English.BACCALAUREATE@education.gsi.gov.uk