

CONSULTATION REPORT: CHANGING ICT TO COMPUTING IN THE NATIONAL CURRICULUM

Introduction

On 7 February 2013 the Rt Hon Michael Gove MP, Secretary of State for Education, launched a public consultation on the Government's proposal to replace the national curriculum foundation subject of information and communication technology (ICT) with computing at all four key stages. This consultation formed part of a wider consultation on proposals to reform the national curriculum and closed on 16 April 2013.

This report summarises the responses to Question 7 of the national curriculum consultation which sought views on the proposal to change the subject name of ICT to computing. It is being published ahead of the report of responses to the wider consultation in order to enable the legislative change necessary to effect the change of name ahead of the new programmes of study being laid before Parliament. A report of the broader consultation findings will be published in the summer.

Heading findings

The consultation on the reform of the national curriculum has received over 17,000 responses. Over 10,000 of these responses were in relation to specific campaigns which did not relate to ICT or computing.

We received **2,855** responses to Question 7 on the proposal to change the name of ICT to computing. The headline breakdown of responses was:

1,126 (39%) Yes 985 (35%) No 744 (26%) Not sure

Next steps

Having carefully considered the responses to this consultation, as well as a range of other relevant factors, the Government has decided to proceed to make the Order to replace ICT with computing under section 84 and 85 of the Education Act 2002. ICT as a subject name carries strong negative connotations of a dated and unchallenging curriculum that does not serve the needs and ambitions of pupils. Changing the subject name of ICT to computing will not only improve the status of the subject but also more accurately reflect the breadth of content included in the new draft programmes of study.

Under the legislation which governs the national curriculum, the Secretary of State is required to consult on a draft of the Order necessary to effect these changes. This consultation opened on 3 May and closes on 3 June 2013. It can be accessed at

<https://www.education.gov.uk/consultations/>

Subject to the outcome of this consultation, the final Order will be laid before Parliament and will be subject to the affirmative resolution procedure. It will therefore need to be debated in both the House of Commons and the House of Lords. The Government is currently considering the responses to the broader national curriculum consultation, including comments on the draft computing programmes of study. Later in the summer, the Government will publish revised drafts of the programmes of study and consult on the draft Orders necessary to bring them into force. It is intended that, subject to Parliamentary approval, the new national curriculum will be made available to schools in autumn this year for first teaching from September 2014.

We are working with a range of stakeholders, including publishers, education suppliers, teaching schools, subject associations, unions and professional associations, to make sure that high quality support for computing becomes available for schools. The Teaching Agency is working with Initial Teacher Training providers to influence training from 2013/2014 onwards. In addition, the Government has recently announced a £2m programme to train 400 master computer teachers over the next two years.

Background

In developing the draft programmes of study for computing, the Government has worked in association with sector experts convened by the British Computer Society and the Royal Academy of Engineering. The process of specifying the subject content for the programme of study at each key stage was informed by the classification of content used in the Royal Society report on computing in schools, *Shut Down or Restart?*¹ This divides the subject discipline at school-level into three distinct but interrelated sub-domains: (1) *computer science* (the rigorous academic discipline that covers algorithms, data structures, programming); (2) *digital skills* (the general ability to use computers confidently, effectively and safely); and (3) *information technology* (the design and application of digital systems to meet user needs for particular purposes). The subject title 'computing' is intended to embrace all three of these sub-domains.

It should be noted that the verbatim responses to the national curriculum consultation are not consistent in the way that they refer to these three sub-domains, making some interpretation necessary. When consultation respondents refer to 'programming' they may also be referring to the overarching category of 'computer science'; and when they cite 'basic IT skills', 'basic ICT skills' or 'digital literacy' it is probable that they are referring to "digital skills" content. References to the application of digital technologies in employment may be referring to '*digital skills*' (basic functional abilities to use standard digital technologies for particular purposes) or '*information technology*' (a more advanced set of competences that relate to the deployment of digital technologies to address the known needs of particular users).

¹ See report <http://royalsociety.org/education/policy/computing-in-schools/report>

Summary of responses

The public consultation on the reform of the national curriculum in England sought views on the proposal to replace the existing ICT curriculum with a new computing curriculum.

It was proposed that the new subject title should reflect the content included in the revised programmes of study for the subject which are more ambitious and rigorous than the existing (and now disapplied) programmes of study for ICT, and place much greater emphasis on teaching the principles of computational thinking and practical programming skills. Changing the subject name to computing was also in keeping with the views of key organisations such as the Royal Society, BCS-The Chartered Institute for IT, Microsoft and the Royal Academy of Engineering.

Question 7 in the consultation document therefore asked whether respondents agreed that we should change the subject ICT to computing, to reflect the content of the new programmes of study. There were 2,855 responses to this question, and an organisational breakdown of respondents is at Annex A. Throughout this report, percentages are expressed as a proportion of these 2,855 respondents, and not as a proportion of all respondents to the overarching national curriculum consultation.

Overall, 39% of respondents supported the proposal, 35% disagreed and 26% were not sure.

Respondents who agreed with the proposal believed that the change of subject name was necessary in order to move away from the 'bad reputation' of ICT, to rebrand and improve the status of the subject, and to signal a change in content and ambition for schools, parents and pupils.

Respondents who disagreed with the proposal argued that the term 'computing' implied too narrow a focus. Some respondents suggested alternative subject names such as 'computing and information technology (IT)' or simply 'IT' to bring the subject label in line with industry terminology. Others expressed a preference to retain 'ICT' as the subject name and did not see the need for change, suggesting that it may be confusing for schools and parents.

Respondents who were not sure expressed similar reasons to those who disagreed with the proposal and questioned whether the proposed subject name of 'computing' was fully inclusive of all elements of the subject area. Some respondents agreed that change was necessary but their reticence was in relation to the proposed content of the draft programmes of study rather than the term 'computing' in itself. A small number of respondents stated that the subject name was irrelevant and that the focus should be curriculum content.

Other key issues raised by respondents in relation to this question were:

- The lack of visibility of ICT/digital literacy in the draft programmes of study and an apparent over-emphasis on programming.

- The importance of IT skills for employability and ensuring that pupils were able to use a variety of technologies and be digitally literate.
- The need for basic ICT/digital literacy skills to be taught at primary level before programming could be introduced to pupils at secondary. Some respondents raised the question of how it would be possible to teach young children with very basic levels of literacy and numeracy how to programme.
- The importance of ensuring that the curriculum meets the needs of all pupils. Some respondents questioned whether programming would be of interest to all young people and whether all pupils would have the aptitude or ability to learn this successfully. Some respondents were also of the view that it was important that programming was a part of the curriculum.
- There was some support for ICT/digital literacy skills to be taught in a cross-curricular way to support and reinforce pupils' learning.
- The importance of e-safety within the curriculum and of children being able to use technology safely also featured. Particular concerns were expressed about the apparent lack of priority given to this within the draft programmes of study, particularly at key stages 3 and 4.
- Some respondents felt that the proposed curriculum may be daunting for primary teachers who are not specialists in computing and would not be equipped to teach it. In some cases, this was accompanied by concern about the considerable need for training and continuing professional development for teachers and issues in relation to cost of this support and the cost of any additional resource or hardware needed.
- The draft curriculum assumes too much underlying knowledge. Some respondents feared that pupils would not have access to the hardware or have the ability to learn basic ICT/digital skills at home and that this was likely to be particularly true for children from lower income families and from deprived areas.

The majority of the points raised by respondents were not directly related to the change of subject name and will be considered as part of our review of the draft programmes of study for computing and our implementation plans.

ANNEX A

Organisational breakdown of respondents for Question 7

| | |
|--|-------------|
| Teacher | 728 |
| Primary school | 695 |
| Secondary school | 308 |
| Parent | 148 |
| Individual | 139 |
| Higher education | 114 |
| Local authority | 99 |
| Consultant | 46 |
| Employer/business sector | 44 |
| Subject association | 39 |
| Academy/Free school | 36 |
| Special school | 27 |
| Organisations representing school teachers | 25 |
| Further education | 22 |
| Heritage/cultural | 23 |
| Young person | 18 |
| Other | 344 |
| Total | 2855 |