

Non examined subjects at Key Stage 4 – especially Computing

BCS response to the Ofsted Inspection Framework consultation

March 2019

1 Summary

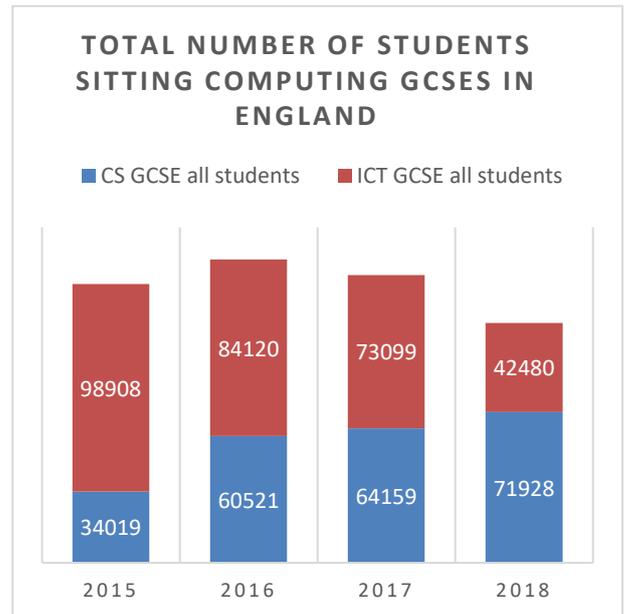
BCS, The Chartered Institute for IT strongly endorses the draft Ofsted Inspection Framework's emphasis that the school curriculum should be "as broad as possible for as long as possible". Computing is a foundation subject, alongside PE and citizenship. We believe that foundation subjects should be at the heart of Ofsted's definition of 'the whole curriculum'.

We believe that the curriculum should continue to provide students with substantive computing content through to at least the age of sixteen. We also wish to express concern at the reduction in the overall number of students leaving KS4 with a qualification in a computing related subject.

We want to draw attention to the fate of non-examined subjects at Key Stage 4, and especially to Computing. **Specifically, we ask Ofsted to give clear guidance to inspectors, through the Inspection Framework, that good and outstanding schools give all students a substantive, meaningful opportunity to study computing up to Key Stage 4, as the National Curriculum specifies, whether or not they are taking a GCSE in Computer Science.** All pupils should be taught to develop their capability, creativity and knowledge in computer science, digital media and information technology and apply their analytic, problem-solving, design, and computational thinking skills.

2 The background

At a time when evidence strongly shows that we need greater numbers of students taking some sort of computing qualification, the reality has seen the opposite happen. 2018 saw a small rise in the number of students sitting a GCSE Computer Science qualification, with 71,928 doing so, up 11% on the previous year¹. However, this in no way compensated for the shortfall in students taking a computing qualification in general. ICT being withdrawn as a GCSE subject saw a reduction of over 41% in those taking it in 2018 compared to 2017 (42,480 vs 61,500)². VRQ Level 2 qualifications, which includes qualifications such as ECDL³, decreased from 154,796 entries in 2017 to 21,015 in 2018.



Overall there were 175,230 computing qualifications taken by students in 2018, compared to 318,781 in 2017, a 45% reduction⁴.

The situation is likely to deteriorate further as the ICT GCSE has now been fully withdrawn: the loss of 42,500 students who took the ICT GCSE in 2018 is most unlikely to be turned into an increase of 42,500 students taking the CS GCSE in 2019. This change in the KS4 GCSE landscape looks likely to disproportionately impact females, who are currently less likely to study CS than ICT; there was a reduction of 30,000 females studying any computing qualification between 2014 and 2017⁵

There has been a large reduction in the number of hours of computing being taught each week at key stages 3, 4 & 5. KS3 saw a 26% reduction in hours between 2012 and 2017, at KS4 there was a 44% reduction, and at KS5 the figure was 34%. It looks likely that students at KS3 are now getting only 45 minutes of computing a week compared to an hour of ICT in 2012; despite a more challenging curriculum.⁶

¹ <https://www.bcs.org/more/about-us/press-office/press-releases/huge-concern-as-number-of-students-sitting-a-computing-gcse-falls-by-16/>

² <https://www.itpro.co.uk/careers/28870/bcs-urges-action-over-worrying-drop-in-computing-gcse-numbers>

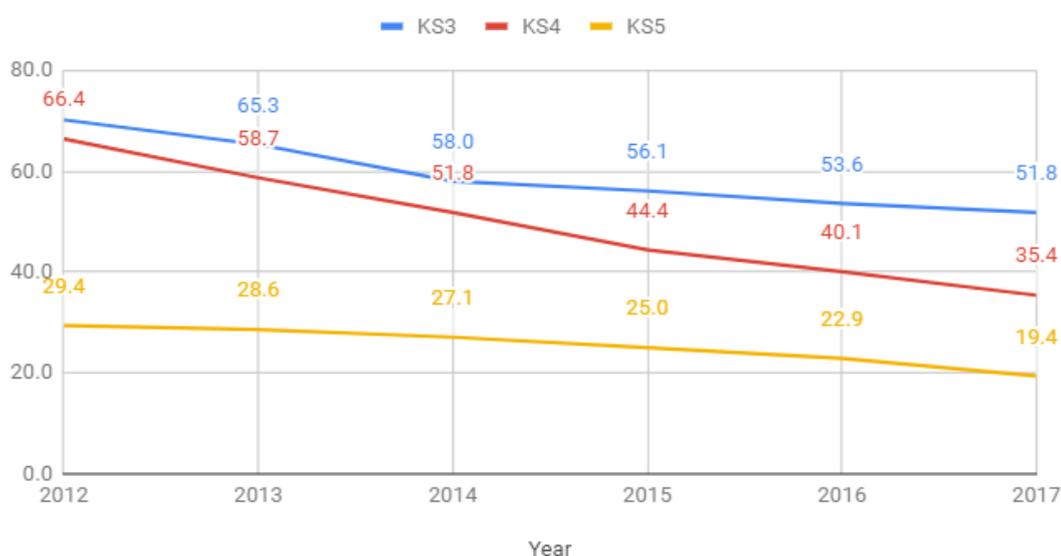
³ ECDL was removed from DfE performance table calculations in 2018 because it is not a GCSE equivalent qualification; it is a competency based qualification intended to develop job related user-skills in ICT

⁴ Kemp & Berry, The Roehampton Annual Computing Education Report: Pre-release snapshot 2018

⁵ <https://www.bcs.org/category/19331>

⁶ Kemp & Berry, The Roehampton Annual Computing Education Report: Pre-release snapshot 2018
Numbers here include ICT hours taught in 2012-13, before the new curriculum was established.

Weekly hours of Computing / ICT (thousands) by key stage



3 The challenge

The behaviour of schools, teachers, parents, and pupils at Key Stage 3 and 4 is driven very largely by the qualifications (mostly GCSEs) towards which they are studying at the end of KS4. Typically, because of the narrowing of the curriculum – to which the Ofsted Research Evidence draws attention (page 5) – pupils study maths, English, science, and sometimes just one “option” GCSE. Only 11% of them use that option to study the GCSE in Computer Science, and only 1 in 5 of those is female.

What of the other 89%? The National Curriculum states clearly⁷ that at Key Stage 4 **“All pupils must have the opportunity to study aspects of information technology and computer science at sufficient depth to allow them to progress to higher levels of study or to a professional career.”** Yet all the evidence we have is that this commitment is essentially ignored in practice.

One response might be to broaden the range of computing qualifications at Key Stage 4 that count for the all-important Progress 8 measure. But a broader view would suggest that qualifications are not everything. Perhaps schools could offer to all “non-specialist” pupils (i.e. those not taking a Progress-8 qualifying computing qualification) a rich programme of study in Computing, perhaps at the scale of one lesson a week. Plenty of options exist including

- Some variant of the [A level Extended Project Qualification](#) (EPQ)
- [The Duke Of York’s IDEA scheme](#)
- [76 Ofqual approved ICT End User qualifications](#) including for example the [BCS European Computer Driving Licence](#)

⁷ <https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study>

The difficulty is this: **what incentive is there for schools to offer such teaching, and for pupils to invest time and energy in studying?** If it doesn't count for Progress 8, the risk is that schools will simply ignore it.

4 How Ofsted can respond to the challenge

That is where Ofsted could play a key role in acting as a *“force for improvement through intelligent, responsible and focused inspection”* (consultation document, p4). BCS believes that Ofsted can and should play a major role in protecting a broad and balanced curriculum from the unintended – but acute – consequences of accountability measures such as Progress 8 and the EBacc. It could do so by enshrining in the Inspection Framework a commitment to ensure that those National Curriculum subjects that are supposed to be studied throughout Key Stage 4, but are not examined, are in fact taken seriously.

Concretely, the Inspection Framework could say something like this:

Inspectors will check that every pupil has a meaningful, substantive opportunity to study computing at Key Stage 4 even if they are not taking qualifications at Key Stage 4 in those subjects.

This single sentence would have the power to change school behaviour. Every outstanding school would know they had to fulfil this requirement to remain outstanding. Every good school would fulfil it as a step on the path to outstanding. An encouragement for schools to make clear the places in the core curriculum where that teaching and learning is taking place would make sure that schools became accountable to parents with regard to the technology education of their children.

The same approach could be applied to other non-examined subjects at KS4, such as PE, and citizenship.

We urge Ofsted, through its inspection framework, to use its influence over school behaviour to support the broad and balanced curriculum that everyone wants.