BCS, The Chartered Institute for IT, Academy of Computing Board Curriculum and Assessment Committee

Minutes of the Curriculum and Assessment Committee
meeting held on
19th October 2018 at 10:30

Present

Prof	Muffy	Calder	Chair
Mrs	Julia	Adamson	BCS Director of Education, Academy of Computing
Dr	Bill	Mitchell FBCS CITP FHEA	BCS Director of Policy, Academy of Computing
Mr	Simon	Humphreys MBCS	BCS Head of Computing at School
Mr	Niel	McLean	BCS Senior Manager
Dr	Sue	Sentance	Chair, BCS Certificate Steering Committee
Mrs	Jane	Waite	CAS London, QMUL
Mr	Peter	Marshman	Leighton Park School
Mr	James	Donkin	Ocado
Prof	Simon	Peyton Jones	Microsoft
Mr	John	Woollard	University of Southampton, CAS Assessment Working Group
Ms	Katy	Potts	Islington Council
Mr	Matthew	Wimpenny Smith	Headington School
Ms	Catherine	Elliott	Sheffield Council
Mr	Rob	Leeman	OCR
Ms	Liz	Williams	BT
Mr	Dave	Gibbs	STEM
Mr	James	Spencer	St Martins School
Mr	Atif	Khan	Pearson

*Attended by phone

In attendance

Mrs	Sam	Cahill	Meeting Secretary

Apologies

Sir	Mark	Grundy	Collegiate Academy
Ms	Saima	Ranma	Westminster Academy
Dr	Jon	Chippindall	Crumpsall Lane Primary School
Prof	James	Davenport	University of Bath
Prof	Tom	Crick	University of Swansea
Dr	Rosalind	Mist	Royal Society

1. Welcome

1.1.   The Chair welcomed all attendees.

2. Starting Point

2.1.   MC noted that whilst there has been great progress with Computing education in the UK there is scope for improvement. This committee aims to identify the big issues to start to develop long term recommendations.

2.2.   One of the issues is ICT v Computing. It was felt that something has been lost when the ICT GCSE was withdrawn. There are also concerns around the lack of a detailed curriculum and assessment guidance for teachers to follow and the ongoing challenge of releasing teachers from the classroom to take part in CPD.

2.3.   It was noted that each nation has a different education system.   It was agreed that, for today, the committee would concentrate on the English curriculum only.

3. Current Landscape

3.1.   SPJ explained that this was his personal view as he is not a teacher.

3.2.   The original aim of the National Curriculum was to ensure that every child from Year 1 should study Computing and have repeated opportunities to learn to program.

3.3.   We are the only country in the world to have Computing as a key part of the National Curriculum.

3.4.   The National Curriculum programme of study for Computing has minimal detail (limited to 2 sides of A4).

3.5.   There was a discussion about the limitation of a curriculum that could fit on to 2 sides of A4 and it was felt that teachers would benefit from more detail. It was suggested that over its lifetime the Committee needs to look at reviewing the programmes of study.

3.6.   SPJ explained that he produced [Decoding the new programmes of study for computing](#), which was designed to unpack the programmes of study.

3.7.   It was noted that a progression grid would be helpful, as teaching is currently activity led rather that progression driven.

3.8.   Discussion continued around the amount of time students are being given to study computing, with many having as little as just 1 lesson every one to two weeks, particularly at KS3. And even less at KS1 and KS2.

3.9.   It was noted that assessments and qualifications place importance on specific subjects. At KS1 and KS2 students are assessed for English and Maths only.

3.10.   It was noted that the Barefoot programme encourages KS1 and KS2 teachers to make connections between subjects like English and Maths, as well as others, and computing concepts and approaches.

3.11.   Some schools are not offering any computing lessons in years 7 – 9, so no KS3 curriculum is being implemented in these schools. It was questioned whether there is any data regarding the number of students at KS3 who are regularly given the opportunity to study computing and to follow that through by measuring to see if there is any change.

3.12.   It was noted that recruitment and retention of computing teachers is a key issue. Specialist teachers are focussed on delivering GCSE and A Level, leaving non-specialists in KS3.

3.13.   It was noted that there are many acronyms associated with Education and Computing/Computer Science. The vocabulary of Computer Science can also be an issue for many teachers. **Action: JA share a glossary of terms**

3.14.   It was noted that Ofsted do not currently measure Computing.

3.15.   It was suggested that many parents do not understand what Computing is. Many parents have concerns about the amount of screen time their children have and do not understand what the Computing curriculum entails. Most parents have experience of English and Maths but have not experienced Computing themselves. Parents often fear losing their child to technology and there is no narrative around creative and digital skills. Years 6, 7 and 8 are a critical time for this. It is important that parents are educated about Computing to give them a greater understanding and to enable them to help to inspire their children.

3.16.   There was a concern that there is too much focus on coding and that the link between computational thinking and coding is broken. Pupils have no underlying mental model which leads them to pick up bad habits in primary school that are carried through to secondary school.

3.17.   It was suggested that the Committee could articulate an underpinning architecture. It would be helpful to know where we would like to be and separate this from the tactical question of how we get there. The two can then be drawn together later.

4. Terms of Reference

4.1.   The group agreed the draft Terms of Reference

5. Future Direction

5.1.   MC reminded everyone that this is long-term endeavour and not a short-term committee. She explained there will be a number of roles for the group. A decision was needed on where we want to go, where the current problems are and how we

resolve them. A structure was needed within the Committee to work on these issues. It would then be possible to decide in what order to tackle them.

5.2.   It was felt that the KS4 landscape needs to be considered most urgently. It was clear that there would be no change to qualifications for at least two years.

5.3.   There has been a lot of concern over the Non-Examined Assessment (NEA) part of the GCSE after Ofqual withdrew the coursework element in the middle of the academic year, which had been due to account for 20% of the overall GCSE mark.

5.4.   In other sciences coursework no longer counts towards the final mark, but must still be completed. Ofqual will be consulting on the future of the NEA during the autumn term.

5.5.   There has been a reduction in technical awards as alternatives to GCSE and the choice is now relatively limited. Alternatives had been suggested but rejected due to overlaps with the Computer Science GCSE. One of the main areas of conflict was covering data within ICT as this is also covered in Computer Science. However it is not possible to study ICT without covering data.

5.6.   It was also noted that the IT GCSE had c.50% female entrants, for Computer Science it's c. 20%.

5.7.   It was noted that it was important that the Committee was speaking with one voice.

5.8.   A framework of what to teach, when to teach it and how to teach it would be very helpful. That is the challenge that faces many Computing teachers. It was felt that focussing on purely Computer Science should be avoided, and the group should look more broadly at computing/digital knowledge and skills for every learner. Consideration of all groups – gender balance, more able students as well as those with SEND, cultural issues, ethnic groups and other inequalities. A Digital strategy for schools might include bringing in families to highlight the importance of digital skills.

5.9.   The committee wants to get to a place where we have solutions that can be communicated and understood, where industry and schools all understand the issues. The committee can help cut through the complexity and make the issues and possible solutions simpler.

5.10. We need to establish our credibility early on. It was noted that group must do something helpful for Government ie: this is the issue, and here is a solution.

5.11. We may be able to learn from the Institute of Physics and LMS.

6. Closing

6.1.   It was suggested that a small sub-group draft a plan for the programme of work for the year ahead. The plan should also indicate which issues are for later years. **Action: MC, JA and SPJ to draft programme of work**

6.2.   The Chair thanked all attendees and the meeting closed at 16:00.

Signed: _____

Prof Muffy Calder
Chair of Curriculum and Assessment Committee