

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

Minutes of the School Curriculum and Assessment Committee meeting held on 25 February 2019 at 14:00

Present

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| Prof | Muffy | Calder | MC | Chair, University of Glasgow | | | | | |
| Mrs | Julia | Adamson | JA | BCS Director of Education, Academy of Computing | | | | | |
| Dr | Bill | Mitchell | BM | BCS Director of Public Affairs | | | | | |
| Mr | Miles | Berry | MB | University of Roehampton | | | | | |
| Mr | Dave | Gibbs | DG | STEM Learning | | | | | |
| Ms | Helen | Harth | HH | Loughborough University | | | | | |
| Mr | Robert | Leeman | RL | Arm | | | | | |
| Mr | Peter | Marshman | PM | Leighton Park School | | | | | |
| Prof | Simon | Peyton Jones | SPJ | Microsoft | | | | | |
| Ms | Carrie Anne | Philbin | CAP | Raspberry Pi Foundation | | | | | |
| Ms | Katy | Potts | KP | Islington Council | | | | | |
| Dr | Sue | Sentance | SS | Chair, BCS Certificate Steering Committee, Raspberry Pi Foundation | | | | | |
| Mr | James | Spencer | JS | St Martins School | | | | | |
| Mrs | Jane | Waite | JW | CAS London, QMUL | | | | | |
| Ms | Liz | Williams | LW | ВТ | | | | | |
| Mr | Matthew | Wimpenny Smith | MWS | Headington School | | | | | |
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In attendance

| Mrs | Maxine | Leslie | ML | Meeting Secretary |
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Apologies

| Dr | Jon | Chippindall | Crumpsall Lane Primary School |
|------|-------|-------------|---|
| Prof | Tom | Crick | BCS Academy of Computing Vice President, Swansea University |
| Prof | James | Davenport | BCS Academy of Computing Chair/Vice President, University of Bath |
| Mr | Simon | Humphreys | BCS Head of Computing at School |
| Dr | John | Woollard | University of Southampton, CAS Assessment Working Group |

1. Welcome from the Chair and Notes from previous meeting

- 1.1. The Chair welcomed all attendees and explained the context of the meeting. Apologies were received as above and the minutes of the last meeting on 19 October 2018 were accepted as a true record.
- 1.2. The Chair informed Members that she and SPJ had met with Michelle Dyson (DfE Director) and Nabil Ali (STEM Education lead) to discuss the inspectorate and NCCE and that the discussion had been very fruitful.

2. Update on plan for year ahead

- 2.1 JA introduced the 2018-19 Plan for a programme of work for the year ahead based on feedback at the last meeting. There were four goals:
 - 1) To explain more about what our subject is.
 - 2) To help teachers to understand what and how they should teach computing.
 - 3) To inform inspectorates and DfE, to support them to ask the right questions, and to know what good practice looks like.
 - 4) To identify what the ideal set of qualifications is that would offer appropriate pathways for all children, especially at Key Stage 4.
- 2.2 For each goal, there were proposed actions and next steps, owners and timeline. During today's meeting it was hoped that the Committee could look at Goals 1 and 4. Goal 1 was likely to be a quick win whilst Goal 4 was a huge piece addressing assessment pathways which was likely to be a longer term activity. However, it would be good to establish what is needed now.
- 2.3 The Chair suggested an additional goal (Goal 0) which emerged during the DfE meeting to outline a view of computing for parents, perhaps via a very short pamphlet that DfE could distribute. There were other examples of this with Barefoot, TeenTech and subjects such as biology. It would be good to encourage parents to participate and ask the right questions when visiting schools. **Action: Chair to take this forward.**

3. National Centre for Computing Education

3.1 Most Committee Members were involved in NCCE work so JA gave a brief overview of the BCS perspective and DG and SS outlined the STEM Learning and Raspberry Pi Foundation activities respectively.

- 3.2 JA reported that the contract had been signed in November with recruitment taking place in November and December. Regional Delivery Partners had been recruited, with 10 Institutions, which were mainly HEIs, the process to recruit approx. 40 school/colleges as computing hubs was underway, all of which would deliver CPD.
- 3.3 DG indicated that there were 50-60 courses scheduled through to July. There were seven different FtF courses with the GCSE heavily supported and recruiting strongly with the next phase moving towards KS3. In order to help students to access GCSEs, STEM Learning was working with the UK Safer Internet Centre looking at online safety.
- 3.4 SS reported that RPF was looking after the online CPD, resource bank and A' Level. Of the 20 online courses, 10 were up and running with 15 offered through FutureLearn including what computing is and what the subject looks like. The resource bank would contain workload saving ideas, access to materials for KS1-4 and lesson plans and access would be free for everyone. The A' Level programme focusses on teachers and students and was being developed with the University of Cambridge, providing an online platform similar to Isaac Physics. Events and materials were being planned to support this with a timeline of being mapped out by November 2019 with the resource bank by next July. In addition there was a research strand to support teachers with evidence based pedagogy. A newsletter was due to be published with the first research report at the end of March. There were different views on teaching methods but a symbiosis of directed and student-centred learning was favoured.
- 3.5 The SCAC was not in the NCCE governance structure but was intended as an advisory body, providing guidance to NCCE and reflecting the Professional Body views. It would be important to ensure that the two entities were not divergent and it was agreed that NCCE developments should be included as a standing item on the SCAC meeting agenda. The existence of this group plus the work being undertaken by members outside of it should make it easy to connect with NCCE, whilst being independent of government and the associated funding.

4. Workshop sessions

- 4.1 The Committee discussed Goal 4 and then Goal 1 during which Members split into two groups to brainstorm. For Goal 4 (to identify what the ideal set of qualifications is that would offer appropriate pathways for all children, especially at Key Stage 4) the aim was to identify factors involved and produce a list of questions to be asked with a view to identifying a working group to take this forward with the possible involvement/leadership of John Woollard.
- 4.2 The output from the flipcharts are attached as an appendix to these minutes.
- 4.3 For Goal 1, the aim was to look at the *Decoding the new programmes of study* for computing document with a view to amending it for the target audience and agreeing a means of distribution.

Summary of feedback on Goal 4:

- Not enough time to do 2 GCSEs. Could do Tech Award and GCSE though.
- GCSE Computing vs GCSE Computer Science depends on resourcing available.
- Some Members liked the idea of a single programme with specialisms as the CCEA does in NI with a Digital media and a programming pathway.
- Much more than just programming.
- 2 tier system similar to science introductory and more advanced?
- Need more data, more ethics, whole of CS, modelling, design (etc) in there and take out some of advanced algorithms. Scotland is ahead in data science.

- Argument about branding as parents had a preference for GCSE geography instead
 of BTEC ICT because it's a GCSE and it is hard to persuade them about this. As
 well as a lack of teachers, the choice is often down to schools' opinions about high
 entry requirements.
- Potential issues around gender, if there are two qualifications then a gender split might occur. If we are serious about CS for all, then building it into one course would be more inclusive.
- Can ensure that UG degree is in-depth enough without feeder courses equipping students.
- 4.4 Members discussed Goal 1 and asked about the role of the document in the context of NCCE. Is it for NCCE or for us? SS indicated that a taxonomy was being produced which breaks down the subject. There was concern about potential overlap with the teachers' guide that was being developed as part of NCCE work.
- 4.5 There was some discussion about who the audience for the document would be. It was thought that this would be teachers and the aim would be to do a better job of explaining the subject, making it broad but also specific, about the nature of Computer Science as a subject rather than the National Curriculum interpretation and as a tool for teachers to persuade senior managers of its value.
- 4.6 In terms of format, it might be useful to have short and long versions. The former to engage senior managers to read it instead of delegating to others. It could principally be a document, but videos could be used to reinforce the messages.

5. Agreed actions and AOB

- 5.1 Goal 4: JA undertook to talk to John Woollard to build on the work he has already done and to produce a short paper to outline options with pros and cons. Action: JA to talk to John Woollard It would be useful to look into the work already undertaken in Scotland and Northern Ireland in this area. MC and SPJ undertook to work on this and circulate to Members for comment. Action: MC/SPJ to look at models in Scotland/NI to look for best practice
- 5.2 Goal 1: JA undertook to speak to Simon Humphreys about why the document is needed, who it is for and what format it should take. In addition it would be useful to get the input of MB and JW. Action: JA to liaise with SH to take this work forward
- 5.3 There were no items of AOB. The next meeting would be timed for 13:00 16:00, commencing with lunch at 12:30 on a day in June to be confirmed.
- 5.4 Some Members reported being unable to access documents in advance of the meeting and ML undertook to look into this. **Action: ML to ensure all Members receive meeting papers.**

The Chair thanked all attendees and the meeting closed at 16:33.

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| Signed: | | |
| Prof Muffy Cal | der ulum and Assessment Committee | |

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