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

Notes of the meeting held on 11 June 2019 at 13:00

Present

Prof	Muffy	Calder	MC	Chair, University of Glasgow
Mrs	Julia	Adamson	JA	BCS Director of Education, Academy of Computing
Dr	Jon	Chippindall	JC	Crumpsall Lane Primary School
Ms	Catherine	Elliott	CE	Sheffield City Council
Mr	James	Donkin	JD	Ocado Technology
Mr	Dave	Gibbs	DG	STEM Learning
Ms	Helen	Harth	HH	Loughborough University
Mr	Simon	Humphreys	SH	BCS Head of Computing at School
Ms	Lucy	Ireland	LI	BCS Learning & Development Deputy CEO (observer)
Mr	Peter	Kemp	PK	University of Roehampton
Mr	Atif	Khan	AK	Pearson
Mr	Peter	Marshman	PM	Leighton Park School
Prof	Simon	Peyton Jones	SPJ	Microsoft
Ms	Carrie Anne	Philbin	CAP	Raspberry Pi Foundation
Dr	Saima	Rana	SR	Westminster Academy
Mr	Neil	Rickus	NR	Raspberry Pi Foundation
Dr	Sue	Sentance	SS	Raspberry Pi Foundation
Mr	James	Spencer	JS	St Martins School
Mrs	Jane	Waite	JW	CAS London, QMUL
Mr	Matthew	Wimpenny Smith	MWS	Headington School

In attendance

Mrs	Maxine	Leslie	ML	Meeting Secretary

Apologies

Mr	Miles	Berry	University of Roehampton
Prof	Tom	Crick	BCS Academy of Computing Vice President, Swansea University
Prof	James	Davenport	BCS Academy of Computing Chair/Vice President, University of Bath
Sir	Mark	Grundy	Shireland Collegiate Academy Trust
Mr	Robert	Leeman	Arm

Mr	Niel	McLean	STEM Learning
Dr	Bill	Mitchell	BCS Director of Public Affairs
Ms	Liz	Williams	BT
Dr	John	Woollard	University of Southampton, CAS Assessment Working Group

1. Welcome and apologies

The Chair welcomed all attendees and apologies for absence were received as above.

2. Notes from previous meeting

Members APPROVED the notes from the previous meeting. It was noted that all actions arising had been completed other than those to be discussed on today's agenda (parents pamphlet and other documents to be considered).

3. Chair's Report and update on plan for year ahead

3.1 RECEIVED and NOTED. This will be a standing item for meetings in future. MC and SPJ reported the formation of new Ofsted subject specialist Working Groups, DfE suggested we should nominate people for the computing group.   James Donkin, Pete Marshman, Pete Kemp, Jon Chippindall, Matt Wimpenny-Smith and Jane Waite volunteered.

3.2 Contact has been made with Ofsted to request a meeting for the Chair and SPJ with HM Chief Inspector Ofsted Amanda Spielman, about improving the quality of computing education and also with Ofqual seeking a meeting to initiate some kind of strategic dialogue/engagement around the landscape of KS4 qualifications. Both requests will be chased if a response is not received within a month of initial contact *[post meeting note: meetings have now been discussed/set up with both Ofsted and Ofqual]*

4. National Centre for Computing Education

4.1 JA reported that good progress has been made in the first 7 months. A number of teachers have started, completed and undertaken CS Accelerator programme with a mix of passes and non-passes so far. The Partnerships and Fundraising activities are going well with £400k in grants secured from companies such as Rolls-Royce, Arm and BT. The target is £1.6M over the 4 years of the contract. The biggest challenge at the moment is raising awareness and securing bookings for the training.

4.2 DG reported that STEM Learning is working on F2F CPD delivery through 10 regional partners starting with HEIs and moving out to schools in the next year. This is being expanded from the core suite of CPD to include primary and KS3 (developed by BCS and CAS). A range of assessment tools, tests and challenges are being developed for recording the baseline for students. The Quantum repository that SPJ had talked about is being used by STEM and will be quality assured separately by BCS.

4.3 SS indicated that hub recruitment is being undertaken by STEM using a school-led model and the team is in the process of interviewing schools. RPF is working on content development for the online courses, which are available online to anyone in the NCCE area. Isaac CS is being beta-tested at moment, with about 7 events around country at HEIs with

student and teachers being separately targeted. Planning for the gender research pilot project is also underway.

4.4   CAP reported that the resource repository will be launched in September and will eventually be a complete curriculum with lesson plans, units, teacher guides, homework and assessment opportunities. NR heads up the primary team and the secondary team is just starting following the planning phase. Some of the resources being trialled in schools are also being tracked by content writers in order to refine content. NR reported that the pilot results so far are pleasing and it looks like they are on the right track for non-specialist primary teachers, although there is still a lot more to do. A lot of internal work is being undertaken within RPF on pedagogy and research: James Robinson produces Research Bytes and podcasts for teachers on evidence-based teaching in computing.

4.5   JS expressed concerns about engagement of teachers, literacy taking the place of CS. NR indicated that case studies are being put together to link up the areas of the curriculum, but acknowledged that this is a key challenge. All three strands of Computer Science, Digital Literacy and IT are being looked at and a lot of work is being undertaken on progression. There is some confusion about where information can be easily found (NCCE, CAS etc) and www.teachcomputing.org is the relevant URL. CAS (computingatschool.org.uk) is still the place for the community to share ideas and contribute resources. **Action: CAP to work out how to communicate to the community how NCCE and CAS repositories can be accessed**

4.6   It will be important to ensure that the resources are easy, reliable and interesting to use. The timeline from DfE is ambitious but once the materials are ready in September, we can start to look at this. SH indicated that it is easy for these issues to get cast in a negative frame; it is important not to make assumptions and to remember that the gatekeepers for this are senior teachers. It would be good to include senior teachers in the Committee membership to explore strategic engagement. SR was about to join the meeting but the other Head Teacher had not attended any meetings as yet. The Chair indicated that the possibility of the Minister talking about these issues at Head Teachers' events had been raised with DfE (Michelle Dyson) and she would continue to push for this. **Action: Chair to continue to raise issue of strategic involvement of senior teachers with DfE**

4.7   PM had been in touch with the Association of School and College Leaders, who are keen to talk at NCCE events and PM undertook to introduce them to JA. Alternatively a Committee Member could meet with them. **Action: PM to broker meeting between NCCE and ASCL**

4.8   It was noted that DfE is keen on the use of textbooks; however AK indicated that 'textbook' as a term is out of date, moving instead to revision books/guides and digitised textbooks. Updates are consequently much easier and it is also cheaper for schools. It was noted that the key will be whether schools can afford iPads/devices. DfE did not want to publish materials itself but it would be good to include an NCCE or independent academic body's logo.

5.   Workshop sessions

5.1   For Goal 0, pamphlet for parents *[SCAC/2019/10]*, the Chair asked for feedback from Members on the wireframe attached to the Chair's report.

Summary of feedback on Goal 0:
- avoid mention of organisations such as the University of Cambridge to avoid elitism
- provide context of sport/healthcare/nursing/multimedia/catering/retail rather than technology to appeal to 14 year olds
- talk about end point, perhaps more about what it is like studying it. A long term view for parents and short term for children
- boxes to suggest creativity, stimulation
- agnostic to the area of the UK, age of the student and social class
- should embrace values of impact, purpose-driven to make a contribution, change the world (a world for all)
- test draft more broadly, eg with children, to ensure buy-in
- ensure relatable, that can see a version of oneself in it eg, computer scientist that finds black hole, female computer scientists, case studies with real examples
- IT word is missing, perhaps combine the two boxes on the left into one as 'creative computing'
- last page 'call to action' for parents to find about from school about NCCE (without necessarily know much about computing), but need to take care as NCCE is England only
- different terminology across devolved nations so may need different versions of pamphlet for England, Scotland, Wales and NI?
- BBC Bitesize is good and covers all nations, Ocado materials good too
- from senior leader perspective, if there are a wide range of nationalities with a school, this sort of pamphlet would be redundant in own community, the BBC website is no good as parents do not read English, the link between IT and CS teachers is important
- leaflet information is important to illustrate other benefits of computing and competitive edge: students starting to realise it is not just an EBacc agenda and that creative, coding and computing is needed. Heads need to be reminded that doing this for a purpose, not for an agenda
- don't overlook the overlap between computing and arts
- other countries are ahead of this discussion space, which might help. Important where senior leaders don't understand, to support them in understanding eg, Romany community that has little experience of computing, unlike experience in areas such as dance
- lay out acceptable model of teaching at each KS, what good computing provision would look like such as multimedia courses
- why and then (specifically) what good looks like – could be specific about this. Why: digital citizens importance. How live, learn, stay safe? Consider nomenclature in Scotland, Digital Citizen, Digital Making, Digital working? What happening at KS3 that is vibrant?

Action: Chair to liaise with SH and obtain feedback before submitting next draft to the full committee.

5.2   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 – Ideas gathering including approaches to consultation
    SCAC/2019/06 CAS within the devolved nations
    SCAC/2019/07 Options appraisal
The Chair thanked Members for all of their feedback. She indicated it would be helpful to summarise the qualifications offered by, and differences between, the four nations. She presented a first attempt at an overview, extracted from the Devolved Nations document,

of the current situation. '?' indicates no information was given in that document. It is important to note that in each nation, the curriculum is evolving (rapidly) and it was difficult to summarise in one small table.

Devolved nations qualifications and support

	Computing	ICT	Vocational	Non-CAS Specialist Support for Teachers
NI	DT mm/prog	Yes	?	No
Wales	CS and IT	DT will replace ICT from 2022	? (techno camps)	NNEST
Scotland	CS N5/H/AH	No	No but NPA Data Science and Cyber Sec	PLAN C Ed Scot Hubs
Eng	CS GCSE, AL	No	Several (4?)	NCCE

Summary of feedback on Goal 4 (Devolved Nations):
- taxonomy for Computing in NCCE to ensure coverage of GCSE and KS4
- understanding similarity and differences too. Maybe understand France too might help to see what works
- how do different nations assess what doing in terms of balance of assessment methods?
- so far dependent on individuals communicating across nations, SCAC should take this on?
- Euro study high level of all qualifications, but not seen an output of this? Benefit of learning from other jurisdictions
- start mapping to other systems, but there are problems as notations are different between different Awarding Bodies, so resources need to be cross referenced
- ifdifferent notations between Awarding Bodies, can we talk to them about standardising?

Action: populate the table with more details
Action: DG to lead this and JA/SS can also input in the background
Action: consider how and what role SCAC can play in facilitating communication between the nations

Summary of feedback on Goal 4 (Options Appraisal):
- good to have one subject that covers all – combined called Computing (CS, IT and Digital Literacy – all three strands) and single science equivalent is GCSE CS to greater depth. Door open for two deeper qualifications in IT and Digital Literacy
- concern that pushing CS into a narrower box if introduce others
- need names for options (not 3.1.1 to 3.1.4)
- another section that talks about informal side (progress 8 – performance points table)
- some bits missing that are highlighted in 3.1.4
- options outcomes will depend on getting data further down the line
- ensure that CS is broad enough to interest those going into all sorts of careers – different options or part of both? Closer to Scotland's Computing Science inc data, HDI etc
- take subjects such as maths into other subjects?
- must ensure that no overlap with VQs as this is not allowed
- lobby government to change the policy if we don't like it

Action: MC, JA and SPJto review the outcomes of today's meeting and come back with packages of work for Members to volunteer to lead/help with

6.   **Agreed actions and AOB**

Agreed actions as above and in detail below. There was no AOB and The Chair thanked all attendees and the meeting closed at 16:12.

The next meeting will be in the autumn, exact date to be advised.

Actions -   responsible people in red

June2019.1 Oftsted and Ofqual
Send contact details to Ofsted (through contacts at DfE) of our members interested in joining the computing subject panel: James Donkin, Pete Marshman, Pete Kemp, Jon Chippindall, Matt Wimpenny-Smith and Jane Waite.
SPJ

June2019.2 NCCE and CAS repositories
Effective communication is needed to the community about how NCCE and CAS repositories can be accessed. CAP is writing a post explaining how the two fit together.
CAP

June2019.3 NCCE and ASCL
Broker meeting between NCCE and ASCL (Association of School and College Leaders)
PM

June2019.4 Senior teachers involvement
Continue to work with DFE on ways to raise awareness and strategic involvement of senior teachers
MC and SPJ

June2019.5 Parents brochure
MC to feedback committee's views to Professor Cutts and after the next wireframe and/or full draft is available, liaise with SH and small sub group for feedback.
MC

June2019.6 Devolved nations qualifications summary
Emphasis should be on four nations: Scotland, England, Wales, NI, including differences between awarding bodies within nations, where they exist, e.g. England. Summary should include current qualifications and those scheduled to be introduced over next 3 years. Develop full draft for next committee meeting. This document to be the starting point of how we consider what role SCAC can play in facilitating communication between the nations.
DG, JA and SS

June2019.7 KS4 Options appraisal document and appraisal of vocational awards
JA to review document to take on feedback from meeting, then pass to SPJ and MC for further review. SPJ and MC to identify and approach a larger subgroup to develop a full draft document for next committee meeting. Detailed appraisal of vocational awards is currently lacking, this may be beyond the capabilities of the committee. JA, SPJ and MC to propose plan for obtaining appraisal.
JA, SPJ and MC
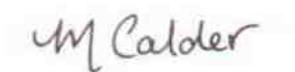
Signed: _____

Prof Muffy Calder
Chair of School Curriculum and Assessment Committee