

agenda

NEWS AND VIEWS FROM OCR / SPRING 2018



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**FOCUS ON GCSE SCIENCE
ACCESSIBILITY**

COMPUTER SCIENCE FOR ALL

**BRINGING CAMBRIDGE
NATIONALS TO LIFE**

**MEET BILL WATKIN, CEO OF
THE SIXTH FORM COLLEGES
ASSOCIATION**

ASHLEY VALLALLY-GODFREY,
HEAD OF COMPUTER SCIENCE AND IT
Hazelwick School

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Welcome to the Spring 2018 issue of **agenda**, OCR's termly magazine with a snapshot of our news and views.

With exams on the horizon, this issue includes details of how we can help teachers to prepare students and also about our new focus on accessibility for GCSE Science.

We've got news about bringing Cambridge Nationals to life and tips from teachers to encourage more girls to study computer science.

Our research team has worked with the Whole Education network to identify successful strategies on new 9 to 1 GCSEs which we share on pages 12 -13.

You can read about the challenges facing the sixth form sector in an interview with Bill Watkin, Chief Executive of the Sixth Form Colleges Association which is the voice of everyone providing sixth form education. Another sector that we work closely with is prisons and we're pleased to have won the contract to supply prison education providers with our ICT qualifications.

All this plus an invitation to our summer examining meetings, strong progression for Cambridge Technicals, and the future for Functional Skills.

To get in touch, send us an email here: agenda@ocr.org.uk.

Leo Shapiro
Chief Executive, OCR

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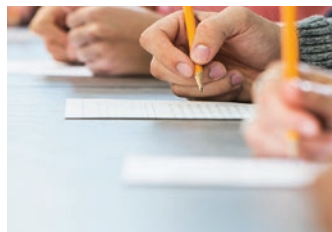
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Supporting Assessment



In the run up to exams, we're supporting your assessment preparation with:

Practice Papers

These free 'mock' papers, created by the same examiners as our live GCSE and A Level exam papers, are useful preparation for the real thing. By the end of 2018, we'll have rolled out over 300 different papers in total across a wide range of subjects. Practice papers are available in the past papers section of our secure website for teachers and exams officers, Interchange:

www.ocr.org.uk/interchange,

ExamBuilder

This is a free and user-friendly tool so you can create papers for students taking exams in maths, science, physical education and computer science. Teachers can combine questions from different past papers to make a mock exam or topic test to suit students' needs. You can also design a formal cover page for your test giving it the look and feel of a real exam. Sign up here:

www.ocr.org.uk/exambuilder.

Candidate Exemplar Answers

Our candidate exemplar answers are designed to help teachers and students understand how our examiners apply mark schemes and what examiners are looking for. They can support your teaching across a wide range of subjects. The exemplars are available for Entry Level, GCSEs and A Levels, as well as for Cambridge Nationals and Cambridge Technicals. Over 200 answers will be rolled out in total. Take a look via our secure website, Interchange.

www.ocr.org.uk/interchange.

In brief

An invitation to observe at summer examining meetings

Every summer, OCR invites external organisations, such as teaching unions, to observe some of the key examining processes involved in delivering results for students. If you, or a representative from your school or college, would like to do the same, please get in touch by emailing agenda@ocr.org.uk.

9 to 1 grading for new GCSEs this summer

Students in England will receive results graded 9 to 1 for their performance in a range of reformed GCSEs for the first time this summer.

OCR's GCSEs graded 9 to 1 for the first time will be: Art and Design, Biology, Chemistry, Citizenship Studies, Classical Greek, Combined Science, Computer Science, Drama, Food Preparation and Nutrition, Geography, History, Latin, Music, Physical Education, Physics and Religious Studies. They join the English and Maths (9-1) GCSEs examined for the first time in summer 2017.

For the new Combined Science GCSE (a double award equivalent to two GCSEs), students will receive one of 17 possible grades, from 9-9, 9-8, 8-8... down to 1-1. Of the new GCSEs to be taken this summer, Combined Science, Biology, Chemistry and Physics also have foundation and higher tiered papers.

Grade boundaries for the new GCSEs this summer will be set after students have taken their exams and the exams have been marked. They are not produced in advance.

Broadly the same proportion of students will get grades 1, 4 and 7 and above as would have got grades G, C and A and above respectively in the old system. The DfE recognises grade 4 as a 'standard pass' and grade 5 as a 'strong pass' and both are reported on school performance tables.

More info about the 9 to 1 grading system is available on the OCR website:

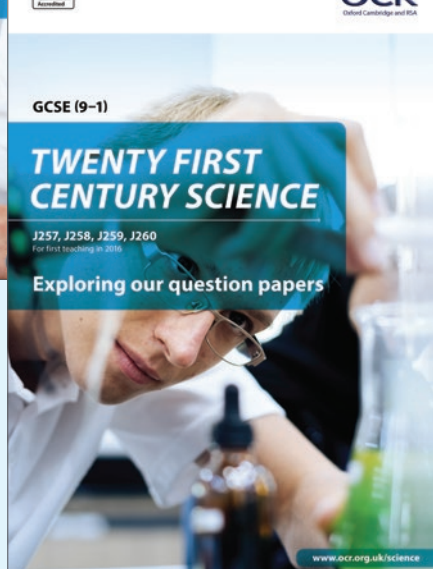
www.ocr.org.uk/gcsereform.



Exploring our question papers



Exploring our question papers



Supporting change in GCSE Computer Science

Following a consultation at the end of 2017, exams regulator Ofqual announced in January 2018 that non-exam assessment tasks would no longer count towards the grades of all new GCSE (9-1) Computer Science qualifications.

Results will be issued in 2018 and in 2019 based on students' performance in summer exams alone.

Ofqual made the decision to change the assessment model with immediate effect to 'make sure the qualification is fair for all students and to preserve the credibility of the qualification itself'. This followed evidence that non-exam assessment tasks were not being conducted according to exam boards' rules.

Since the announcement in January, our main focus has been on supporting schools and colleges through the changes so teachers and students can complete the GCSE course and prepare for

exams as effectively as possible. Thanks to everyone who shared their views with us as part of our response to Ofqual's consultation.

OCR pioneered the development of a new GCSE in Computing back in 2010 and we believe it's vital to give GCSE Computer Science students the opportunity to engage in authentic programming experiences.

A long term challenge for computer science is to encourage more girls to consider taking up the subject at school. Teachers share their tips on pages 8-9.

www.ocr.org.uk/computing

Focus on accessibility for GCSE Science

Our suites of GCSE (9-1) Science qualifications were developed for first teaching in September 2016 and students will sit their first exams in summer 2018.

The underlying principles for our GCSE (9-1) Science question papers are to keep presentation clear, ensure we're always assessing understanding of the science and to be clear on command words.

We've used a research-based approach to look into the accessibility of our GCSE (9-1) Science question papers and have made some improvements. We've reviewed the look and feel of our papers through text, tone, language, images and formatting to help improve the exam experience for students.

Ahead of the first exams in June 2018, we have produced some new guides which explore our question papers and assessment approach. These explain the design of our papers, from their structure and the assessment objectives used, to command words and assessment principles. These documents are available on our website.

A full set of our GCSE (9-1) Science practice papers are ready for schools to use. All 44 papers and mark schemes (for our Gateway and 21st Century suites with separate papers for Foundation and Higher tiers) are free to download from our secure Interchange area to allow these to be used as part of exam preparation.

www.ocr.org.uk/science

OCR wins Ministry of Justice ICT contract for prisons



OCR has been chosen by the Ministry of Justice (MoJ) to provide ICT qualifications to adult learners in England's prisons from August 2018.

OCR was successful in its bid to be the exclusive provider of qualifications in this subject area which is crucial for employability and everyday life.

The contract reflects the breadth of OCR's 'Computing' (ICT, Digital Literacy and Computer Science) qualification range. Centres providing prison education will be able to choose from OCR's Entry Level to Level 3 qualification range which includes Functional Skills, IT User Skills (ITQ), Cambridge Technicals, GCSE and A Level. This offers both vocational and academic options to suit all learners.

Peter Canning, OCR Product Director, said: "The majority of prisons already use OCR qualifications and prison learning is an important sector we support and understand well. We are delighted to be able to bring our expertise to make sure ICT qualifications can be delivered to learners as easily as possible with a package of flexible and high level support. We believe it's vital that prisoners have the opportunity to develop their ICT skills and have their learning recognised."

OCR is one of four awarding bodies given contracts by the Ministry of Justice to provide qualifications across a total of seven subject areas. This is part of the reform of prison education first announced in 2016. The contracts were confirmed by the MoJ in January 2018. OCR will continue to provide a range of qualifications to prisons in areas outside the MoJ contracts, such as Business, Sport and Performing Arts,

OCR has many years' experience of working with prisons and is looking forward to supporting new and existing centres during this exciting period of transition.

www.ocr.org.uk/computing



Competition brings Cambridge Nationals in Information Technologies to life



The IT department at Hazelwick School in West Sussex motivated their students taking Cambridge Nationals in Information Technologies by getting them to present their new technology ideas to experts from leading IT-based companies.

Ashley Vallally-Godfrey (pictured back row, second from left), Head of Computer Science and IT at Hazelwick School, asked representatives from leading companies in game development, engineering, software development as well as the hospitality industries, to form a Dragons' Den-style panel.

He explained: "I wanted a project to bring a real world scenario and some excitement to the course and to the classroom. Year 9 and 10 students, aged between 13 and 15, had been working in teams to invent a new piece of wearable technology. Having researched the current market, they came up with some amazing ideas. They then had to pitch against each other in class battles in order to face the external judges."

In December 2017, a panel of external judges watched the

students present their ideas, scoring each group's pitch, their confidence and enthusiasm and their ability to meet the brief before choosing the overall winners. The winning group, 'Lost'N'Found', invented a trackable piece of clothing to prevent child abduction and safeguard vulnerable adults.

The four winning team members were Alfie Matthews, Matilda Nobel, Jash Limbachia and Bilal Khan.

As well as the overall winning group, students (above) were also given certificates for 'Best Idea', 'Most Confident Speaker', 'Best prepared pitch', and 'Most likely to succeed at market'.

Not only had the students gained confidence in presenting to their peers and to the panel, but they had used the project lifecycle to invent a new piece of technology, conducted

market research and had learnt about different uses of data. All in all, the competition brought learning to life for the student. Year 9 student Alfie Matthews (pictured front row, far right) said: "I really enjoyed the Dragons' Den-style activity because it gave me the opportunity to work with new people who I wouldn't normally work with. We came up with the idea of a trackable piece of clothing. This was driven after we read news articles about high profile kidnappings. We felt compelled to prevent this from ever happening again. As a student with a hearing impairment, this massively improved my confidence to speak in front of a range of people and to present my ideas."

www.ocr.org.uk/cambridgenationals

Students' right to review 'centre-assessed' marks

Did you know... students can request a review of their centre-assessed marks this summer? All students must be able to do this before their marks are submitted to an exam board.

This applies to any GCSEs, AS/A Levels and Project qualifications with coursework/NEA, and includes A Level Science and GCSE (9-1) English Language endorsements. There's a blog

on our website by our customer support manager, Ali Leather, on how to go about meeting this Ofqual requirement: www.ocr.org.uk/blog.

Making Functional Skills work for all

Functional Skills are being reformed and new qualifications in English and maths will be available for first teaching in September 2019.

According to the DfE, the purpose of the new qualifications is to provide: reliable evidence of learners' achievements against demanding but appropriate content that is relevant to the workplace; a foundation for further study or employment; and assessment of learners' underpinning skills as well as their ability to apply this in different contexts.

OCR has held customer workshops, including joint ones with Pye Tait, to inform our approach to redevelopment so our new qualifications are relevant and valued by employers and learners.

The current timetable is for draft qualifications to be submitted for accreditation from August 2018 onwards. We look forward to sharing our accredited qualifications in Spring 2019 so teachers can plan ahead. We'll provide regular updates at www.ocr.org.uk/functionalskills.

You can also read our Head of Policy's vision for the new qualifications on page 14.



Eye catching: Here's one of many great pieces of art that students create for OCR's Art and Design A Level. Regulations for timed GCSE and A Level art exams are changing. Take a look at the helpful blog about the new regs by our subject advisor, Rebecca Wood, here: www.ocr.org.uk/blog.



Research reveals strong progression to HE for Cambridge Technicals students

Cambridge
TECHNICALS

Students with OCR's Level 3 Cambridge Technical vocational qualifications are progressing successfully to higher education, new research reveals.

The research conducted by Cambridge Assessment's research team looked at UCAS data on application and acceptance rates of students with Cambridge Technicals qualifications. The research tracked approximately 7500 students with Cambridge Technicals qualifications who applied to start undergraduate degrees in 2017/18. Over 95% received at least one offer from HE and over 86% were accepted onto an HE course. There was no significant difference between the percentage of offers made to students studying Cambridge Technicals and to comparable students taking other qualifications. While the majority of students with Cambridge Technicals made successful applications to a range of non-Russell Group universities, nearly 500 were accepted at Russell Group universities.

In Autumn 2017, OCR shared the news that two students (pictured above) from UTC Sheffield with Cambridge Technicals in Engineering qualifications, alongside A Levels in Maths, Further Maths and Physics, took up places to study Engineering at Cambridge University.

Cambridge Technicals subjects are well-aligned to subjects offered at university. According to the new research, over 80% of students with Cambridge Technicals qualifications in IT and in Business and Administration, for example, were successful in their applications to Computer Science and Business courses at university.

OCR is committed to ensuring that students with Cambridge Technicals can progress along their chosen pathways, whether it's to higher education, apprenticeships or employment. The message from the data is a positive one and our research in this important area of social mobility continues.

www.ocr.org.uk/cambridgetechnicals

Smooth start for Level 2 Cambridge Technicals CBT

January 2018 saw the first computer-based tests for Level 2 Cambridge Technicals (2016). The first on-screen tests went smoothly. Schools and colleges appreciated the flexibility of the system, which also meant no storage or postage of exam papers was involved.

In brief

New format for OCR Forums in 2018

The OCR Subject Consultative Forums were set up to enable us to consult with teachers, HE representatives and other subject community stakeholders. In recent years, they have been an invaluable way of sharing expertise and thinking in the design and development of our qualifications during reform.

Now that our new qualifications are being taught, the format of the Forums is changing. This is to help us to respond to educational policy and qualification reform, as well as to ensure our qualifications remain relevant and fit for purpose.

For the Spring 2018 Forums, we will hold three conference style events in external venues, inviting existing Subject Forum members to attend one event. The morning session will feature an education policy update as well as presentations on OCR's objectives over the coming two years. The afternoon session will see members meet in their individual Subject Forum groups for discussions on subject specific issues. We hope this format will be attractive to new, as well as existing Forum members.

The dates and locations of the Spring 2018 Forum events will be:

Creative Arts, Sociology, Geography, IT & Computing and Maths

Date: 18/04/18

Location: University of Warwick

English, Psychology, Classics, Sport & PE, Science

Date: 19/04/18

Location: University of Warwick

History, Health & Social Care/Food, Business & Economics, Religious Studies, Design, Technology & Engineering

Date: 24/04/18

Location: Barbican, London

OCR Bursary Scheme 2018/19 opens

Applications are now open for OCR's Bursary Scheme 2018/19. The scheme supports talented students from schools and colleges across the West Midlands at Cambridge University. To help students make the most of the opportunity of studying at the University, OCR awards up to ten students a bursary of £3000 for each year of their undergraduate studies. They can use the money towards living costs, tuition fees or a combination of both.

The fund for the Scheme arises out of our historical association with the West Midlands Examination Board. The deadline for this year's applications is 15 May 2018. Find out more here:

www.ocr.org.uk/bursaryscheme.



COMPUTER SCIENCE FOR ALL

OCR is supporting teachers and students to prepare for this summer's GCSE Computer Science exams as effectively as possible, following the change to non-exam assessment announced by Ofqual in January. To help with exam preparation, we offer free practice papers plus teachers can create papers to suit their students' needs using ExamBuilder. However, a longer term challenge for everyone involved in computer science is encouraging more girls to take up the subject at school.



Christine Swan with some of the keen computer science students at her school.

According to the Joint Council for Qualifications, 66,751 UK students achieved a GCSE in Computing last summer. Of this total, 53,519 (or 80%) were male and 13,232 (20%) were female. At A Level, 90% of UK students achieving an A Level in Computing last summer were male. Yet it was Ada Lovelace in 1843 who is considered to have written one of the first bits of computer programming. And 'grandmother of the web' Mary Berners-Lee, who died this year, helped program the first commercially produced computer in 1951. *So here are some tips from OCR teachers to get more girls to sign up for computer science.*

Christine Swan (above left) is a Computing At School (CAS) Master Teacher. She has taught for 28 years in secondary, FE and HE sectors. Christine is the PGCE Computer Science Subject Tutor and a Visiting Lecturer at Birmingham City University.

How can we encourage young women to consider studying computer science?

"A key motivator for young women is the knowledge that studying computer science will assist them in pursuing

their career. They understand that computer science can give them a competitive edge and that success in it demonstrates highly developed technical and problem-solving skills. Encouraging friendship groups to 'sign up together' is a great idea, as is permitting them to sit and work together. Parents also have a significant influence. Even if they are not employed in a technical field, in my experience, parents understand the value of computer science in developing transferable skills and knowledge to equip them in the 21st century.

Teachers must also work hard to ensure that the social culture of their school, and their teaching, seeks to undo the influence of stereotypes that divide the curriculum into "boys" and "girls" subjects. Much of this pressure comes from within the student population itself but we need to challenge preconceptions and reinforce positive stereotypes.

Developing skills in coding and systems development can provide an income for young women but also can provide flexible work for different phases of a woman's life. There is immense satisfaction in solving technical problems – a fact that is often overlooked."

What is already being done to close the gender gap and what is working well?

"In the secondary school where I was Head of Computer Science, we had a number of technical female role models. We also had a very active STEM programme manager who organised a number of events that would appeal especially to female students. Classroom activities should appeal equally to girls and boys, and avoid gender bias. Providing a range of activities is often successful such as programming repeating patterns, wearable computers, computer generated music and the perennial favourite of games programming. Creative thinking appeals to both girls and boys. This can be a great motivator in learning to code. We must be mindful not to perpetuate stereotypes by adopting a "pink it and shrink it" approach. Some approaches that were successful in the past now appear patronising.

Some students that I have taught worry about their ability to do well in GCSE Computer Science. I do believe that female students are very good at forming support networks and that encouraging these is definitely a recipe for success.

Helen Catterall, Head of IT and Computing at Archbishop Temple School in Preston, shares her tips:

“I think that having female role models within the department helps a lot as the girls are less intimidated. I have also found that parents play a large part in encouraging their daughters to take the subject and having a female teacher reinforces that.

I am now harnessing younger pupils’ interest from Year 7 onwards with CS clubs and this year Lego Mindstorm

robotics and STEM events where we have an even girl/ boy split, especially for the Robotics comp that my 11-14s are entering in March. I have also run the CyberFirst competition where we have 3 teams of girls participating and a number of girls are interested and have signed up for the DCX Scratch game competitions. All of the above help promote the subject for girls and shows them that

they are just as, if not more, capable than the boys.

The girls tend to revise more than the boys and as CS is not a subject that can be ‘winged’, this provides excellent results. Last year we had 2 girls achieve 5 levels of progress and the girls outdo the boys each year. This is then also a good advert for girls’ uptake in the future.”

Dru Watts, Computer Science teacher at East Bergholt High School in Suffolk, offers the following insights:

“At the moment we have ten girls out of forty nine students in total taking computer science. This does vary for us a lot though as we have had around forty percent girls on the course. We have four girls in year 11 and six in year 10 so hopefully our numbers are increasing again.

My own top tips for increasing girls choosing to take computer science would be to try and make lessons fun and relate to real life where possible so girls can see how it will apply to them. I run a lot of extracurricular activities which are suitable

for both genders – First Lego League is particularly popular. Our team that has now moved on to sixth form were all girls and only one boy. They have now nearly all taken computing at sixth form and have since emailed me to say they are loving A Level and at least one is planning to enrol on a computer science degree.”

What Dru’s KS4 students say:

“In my opinion, computer science is a far more relaxed option to take. In particular, I enjoy the theory side of it. Also now

that society has evolved into using more technology, I think that taking computing as an option will become more of a necessity.” - *Bryony*

“I enjoy how well-rounded the course is for me. You learn a mixture of things which vary from learning to code programs and studying how computers and the internet operate. The programming of the course is by far my favourite as I find it very fulfilling for myself.” - *Katie*

Jasmine Mohammed, Head of Computer Science at Loretto Sixth Form College in Manchester, offers her tips for A Level Computer Science:

Breakdown of students

2017/18	Year 12	Year 13
Girls	20	12
Boys	79	51
Total	99	63

“Taster days for Year 10 students are often helpful to give students an insight into computer science, supported by female subject ambassadors.

Furthermore, at the college open day, female subject ambassadors from our Year 12 and 13 are always helpful – they

can offer an honest opinion about the course and the career path they are going to take. This gives prospective students an insight into careers currently being taken – by girls – in computer science.

Initially, we start the course with the most daunting task – coding. I tend to seat the girls together and early coding tasks are paired, so that they seek support from each other. Feedback is verbal, allowing the girls to develop their skills without the dread of assessment. This really helps

to develop their own inner confidence and sense of belonging.

Why OCR?

I made the decision to go with OCR largely due to the resources and support available. After analysing all the A Level specifications and understanding the demographics of inner city Manchester, I felt that OCR offered an A Level that was accessible to students of ALL backgrounds.”

Forging links across the curriculum is also a mechanism for engaging some girls, for example a code breaking activity involving mathematics, a computer generated art show, music composition, science revision apps... The list is as long as imagination will permit.”

Would you recommend a career in computer science?

“Definitely! I have been very fortunate in my career. I initially taught programming alongside science as long ago as 1984. Since then, I was fortunate to be able to

train as a Cisco Networking Academy Instructor and later a wireless, telephony and security specialist. At the time when I qualified, I was one of only 12 women instructors in the UK. The number of female technical leads in organisations is now significant. There are also large numbers of female entrepreneurs who head up innovative tech businesses. However, from a personal perspective, I enjoy the challenge of solving problems. I was probably raised into it as my mum operated radar and predictor equipment during WWII.

Women are innovators, we are tenacious and determined. We support each other and are methodical in our approach. We are empathetic to the needs of end users and understand how technology can be put to use for our benefit. We must encourage self-belief, confidence and drive. I am very privileged to have played a small part in engaging more girls in this fascinating subject and hopefully onto successful careers.”

To find out more about computer science, visit www.ocr.org.uk/computerscience.



Bill Watkin is the Chief Executive of the Sixth Form Colleges Association (SFCA) which represents all 90 colleges in England. It is the voice of all those providing sixth form education to 16 to 19 year olds, which includes academies, schools and free schools. Here Bill tells **agenda** about his own path into education and the challenges he faces in his role.

What was your background before taking on your current role at the Sixth Form Colleges Association?

I started out teaching MFL in various schools in the London area. I remember my first job being something of a baptism of fire. It was in a Social Priority Allowance school – a strategy to incentivise teachers to work in particularly challenging situations – where I developed practices that stood me in good stead over the years, as well as a consciousness of the importance of education as a lever for social mobility, and a love of teaching that has never left me.

After over 20 years in schools, I joined SSAT, a national membership association of thousands of schools, where I stayed for 10 years. My role was Head of the Academies Programme and I was responsible for delivering the government’s well-structured, and well-funded, support programme for a small, targeted number of schools facing the most entrenched difficulties and serving the most disadvantaged communities.

This was a time before the opening up of academy status as an aspirational pathway for high-performing schools; it was a morally-driven and determined effort to ensure that thousands of young people in schools that had been underperforming for generations, could experience a transformation in their education. The programme has, of course, morphed into something else

now, with outstanding converters, MATs playing the middle-tier role, and its very scale making it very hard to even keep in sight the original stages of the journey, but I know from first-hand experience just how important those early days were to many young people.

What do you like about working in the field of education?

Whether working in a school or college, or working in a representative association, I have always loved the variety – no two days, no two hours are ever the same! And yet this variety, of providers, ideas, demands, needs, challenges, opportunities, people, styles, sits alongside a common core belief and purpose: young people are interesting, they are our future, and they deserve nothing less than the best.

Who do you admire in your field?

One of the delights of my work in the last twelve years has been the opportunity to travel around the country, visiting colleges and schools, and witnessing the extraordinary things that are being done, in so many ways, in countless places and by so many people: students, teachers, leaders and governors.

That makes it difficult to single out particular individuals. But I must mention Lesley King, a former Headteacher and my boss at SSAT. She taught me so much about working in a national context, about moral integrity, and about working

with the full gamut of stakeholders, from members to ministers. And I must also mention James Kewin and the small, but extraordinarily effective team at SFCA, whose tireless determination to serve the needs of all sixth form colleges with skill, sensitivity and passion, make a real difference to the education landscape.

Was your own experience of education a positive one and what lessons did you learn from it?

I was taken to Paddington station by my parents and put on a train, with my trunk, to Shrewsbury (the train lines have changed now, of course!) at the age of seven. For the next five years, I endured a fairly barbaric and violent experience of education, in which I suspect I suffered less than some because I was good at sports and, rather bizarrely, even better at Latin.

I learned that schooling is a complex social activity and that good pedagogy can take different forms. Take art, for example... every week we had to learn, for a test (woe betide those who failed), the title, artist and date of 20 works of art depicted on post cards suspended with bulldog clips at the back of the classroom, with a different set of cards each week. Compare this with the maverick art teacher who inspired a love of art by playing Sergeant Pepper and discussing Peter Blake’s and Jann Howarth’s album cover graphics every lesson for a term!

What do you do when – if – you have time off?

I cycle as much as I can, and I am learning to play the ukulele – but I am still appallingly bad at it.

What is the remit of the Sixth Form Colleges Association?

The Sixth Form Colleges Association is the established voice of dedicated sixth form education and the hub of a national network of sixth form colleges. Our vision is of a growing and thriving sector that will:

- Continue to be high performing, highly efficient and deliver outstanding outcomes for learners
- Continue to play an active and influential role in shaping 16-19 education policy, funding and curriculum
- Be recognised and valued as the most successful providers of 16-19 education
- Be recognised and valued by government as an invaluable asset to the education system.

How do you meet the needs of your members/those you represent?

- **Representing our members:** particularly in discussions and negotiations with trade unions and officials from government departments and agencies
- **Promoting our members:** to a wide range of stakeholders including the media, politicians and potential students
- **Supporting our members:** on a range of issues through the provision of research, resources, guidance and one to one advice.

What are the greatest challenges that your organisation faces over the next five years?

The current low funding levels mean that sixth forms, whether in schools or colleges, are stretched to breaking point. Indeed, some schools have already had to close their sixth form; some colleges have had to merge. The survivors need to be bigger in order to be financially viable; they need larger classes if they are to avoid having to cut some subjects from the curriculum. And they are being asked to do more with

less. For example, the government recently launched its careers guidance, which places an additional burden on sixth forms, but which has no funding attached to it.

As inflation rises, as public sector pay is no longer subject to a freeze, as pension and NI contributions increase, staff salaries will come under scrutiny and, unless wage rises are funded, industrial relations will feel the strain.

Curriculum changes continue to make themselves felt, with linear A levels increasingly the norm, with the exam cliff edge of Applied Generals deterring many from switching to the new format, with T levels drawing ever closer and with the government encouraging a greater focus on apprenticeships.

“Applied Generals must be accepted as a valid and valuable route in an academic curriculum for students working towards university.”

Sixth form colleges will be keeping their curriculum under close review and working to ensure breadth and balance, the protection of ‘minority’ subjects, a full range of qualifications to meet the needs of young people and the labour market, and cohorts of young people equipped with the knowledge and skills to serve them well at university.

What achievement are you proudest of as Chief Executive?

I am delighted that sixth form colleges are sticking together as a tight-knit family. They are not a universally homogenous group; they serve different communities; they offer different curricula; some of them have recently become academies. But their common purpose remains undiminished and their sense of family, of mutual support, of loyalty to the sector is a wonderful thing to see. Indeed, not only have some rather doom-laden predictions of fragmentation of the sector proven unfounded, but we have been pleased to report a 10 per cent growth in our membership.

This is all about specialist experts in a specialised field, sharing similar challenges and opportunities and recognising that, whether informing policy decisions or shaping sixth form pedagogy, they are stronger together.

If you were stuck in a lift with a government minister, what three things would you ask for on behalf of your sector?

The #SupportOurSixthformers campaign has succeeded in securing a broad understanding that the funding levels of sixth form education are unacceptable and unsustainable. We are damaging the educational experience of all sixth formers in the state sector, with teaching time cut to a half of that available to young people in Singapore, Shanghai, New South Wales and Canada; with pastoral support, mental health services, careers guidance and enrichment opportunities all increasingly at risk. So my first ask is for funding, not because it would be a nice to have, but because the lack of funding damages our standing as a competitor in the global market; not because without it, social mobility will not happen, but because society and the economy needs people with A levels and degrees to be the scientists, doctors and business leaders of the future.

Secondly, Applied General qualifications are once again under review and we seem to be heading in the direction of a binary choice for 16 year olds: A level or T level. This would be catastrophic for many young people, and Applied Generals must be accepted as a valid and valuable route in an academic curriculum for students working towards university.

Thirdly, the access arrangements for English and maths resits in colleges. Students are assessed in Year 10 and their needs are identified and special arrangements are put in place for when they sit the exams at 16. If they fail and then go on to a college where they take a resit, the college must re-assess the student, identify the needs and clear the special arrangements from scratch – all in time for the resit date in November. This is absurd and can so easily be fixed.

SHARING SUCCESSFUL STRATEGIES FOR NEW GCSES

by Dr Frances Wilson

Teaching the first group through a new qualification is daunting. It can feel like you are leading a class and your colleagues through dangerous territory...

Whole
Education

With the first exams in many new GCSEs taking place this summer, we wanted to share the experiences of heads of English and maths who had prepared their students for the first English and Maths (9-1) GCSEs in summer 2017.

Last year, we set up a research project to help heads of departments (HoDs) to identify areas for improvement and strategies for future success. We wanted to know if the early experiences of English and maths leaders could benefit other colleagues going through similar changes in their subjects for the first time.

We presented our findings at Whole Education's Conference this spring and we're delighted to share a summary of the findings here.

Our research was conducted with approximately 30 schools who are part of Whole Education (WE). WE is a national network of schools and organisations committed to providing an education which develops the skills, knowledge and qualities needed to flourish in life, learning and work. The research is the latest development of a partnership between OCR and WE which has been evolving since 2011.

Methodology

Our research was conducted with HoDs in two phases. The first was in June 2017, immediately after students had taken their first exams for the new GCSEs. The second phase involved the same HoDs in the days after GCSE results were issued. OCR used online questionnaires to explore whether their views had changed following results, and to investigate whether they planned to make changes to their delivery of the new GCSE courses.

Schools across the country were invited to take part in our research by Whole Education and took GCSEs from a mix of exam boards. Their results in the legacy English and Maths GCSEs in 2016 varied. At one school in the group, 95% of students had achieved grades A* to C in GCSE English Language, while at another, 45% of students achieved grades A* to C. There were schools with a similar range of results for GCSE English Literature (from 88% to 40%) while the percentage of student achieving A* to C results for GCSE Maths ranged from 83% at one school to 53% at another.

Key challenges identified by our research

Participants reported the following four challenges associated with the new GCSEs in English Language, English Literature and Mathematics, listed in order of importance:

1 Ability to track student progress and predict student grades. The lack of grade boundaries in advance of exams had affected interactions with SMT, students and parents. Confidence in this area increased following results, but this remains a source of anxiety.

2 Adjusting to new content. For English Literature, many teachers had to prepare to teach new texts, and in mathematics there was substantial new and more demanding content for both higher and foundation tiers, such as an increased focus on problem solving. This would be a particular anxiety for non-specialist colleagues.

3 Changes to the assessment model in English Literature and Language; with the removal of controlled assessment, and the move to closed book examinations meant that the delivery of the course had

been changed substantially. Developing an understanding of what was required from students in the new assessments requires substantial work, and teachers felt uncertain about how best to prepare their classes. Teachers had identified areas to target improvements after analysis of student performance on different topic areas.

4 Teachers had to develop knowledge, either of the new content, or strategies to prepare students for a new form of assessment. Ongoing work is needed to ensure that all teachers are able to deliver all content areas of the new specifications confidently.

Several participants also commented that the scale of the changes had led to much higher levels of anxiety among staff.

Successful strategies identified by our research

Despite these challenges, most HoDs reported that they had developed a range of successful strategies to adapt to the changes:

- Changing the teaching plan, to allocate different amounts of time to specific topics.
- Building in multiple opportunities for revision.
- Changing teaching plans for KS3, to ensure smoother progression to KS4.
- Moving away from giving students grades as a method of tracking progress, and using percentage scores on tests instead.
- Changing their intervention strategies, though different schools took very different approaches to intervention, with one participant indicating that every student had some form of intervention.

9 TO 1

- Taking training courses, either exam board led, or by other organisations such as PiXL.
- Becoming as familiar as possible with the specification, and making use of all available materials, from all exam boards.
- Collaboration with colleagues within their institution.
- Encouraging staff to become examiners for their exam board.

Impact on teachers in their departments

The HoDs who were most positive about the reforms emphasised the role that collaboration with colleagues had played and the importance of fostering a supportive ethos. They thought that teachers had:

- Enhanced their subject expertise.
- Enhanced their pedagogical expertise.
- Increased the extent to which they collaborated.

What advice would HoDs give to their colleagues in other subjects moving to 9 – 1 GCSEs?

There were three pieces of advice mentioned most frequently:

- **Develop resilience and independence in your students to help them to be positively engaged with the opportunities of new specifications and linear exams.**
- **Embrace the need for quality CPD and staff training. Look for opportunities within the school, MAT and other networks and organisations (including exam boards) to upskill staff. Recognise the link between staff confidence and student engagement and success.**
- **Consider the curriculum in KS3 to ensure smooth progression to KS4.**

After results day 2017

Key advice to teachers from HoDs

“Stress the importance of skills, percentages achieved and NOT MADE UP GRADES that we have to produce to satisfy SLT/ data drops.”

“Know the specification really well. Give students clear aims and outcomes – use marking band grids as you can’t give them grades. Tell them they should be aiming for 100%.”

“Teachers must be prepared to ‘put the work in’ to upskill themselves in the style of exam questions and where the marks come from in the questions.”

“Don’t be scared! Be confident in your ability as teachers to teach your students. Make sure that you plan carefully and don’t be afraid to change your plans as you go along if lessons are learned.”

“Stay positive!”

The broader curriculum challenge

One thing which became apparent in our research was the need to consider the student experience, not just the department’s. This means reflecting on how best to build a curriculum which meets individual learner needs in Level 2 study and prepares them for their next steps.

A case in point would be provision in computing. If there are students for whom GCSE Computer Science is not the best fit for example, there are other qualifications – such as Cambridge Nationals in Creative iMedia or Information Technologies – which count towards Progress 8 or attract performance points.

Key advice about developing skills in students

“Try to develop students’ ability to recap knowledge – revisit content throughout the 2 year course and not just at the end.”

“Building independence and resilience is a major factor throughout the year. Maintaining confidence and supporting pupils has a big impact on their mentality going into the exam. Regularly use revision tasks, tests or activities to build retention of learning.”

“Parent information evenings – I have completed two. This is to tell parents that the grades I am using are made up (be specific). In my case, I said that they were very high and that saying to the child e.g. why are you only getting grade X is not helpful. Concentrate on the percentages they are achieving, are they increasing? Great.”

NEW QUALIFICATIONS IN FUNCTIONAL SKILLS ENGLISH AND MATHS ARE COMING IN 2019



PAUL STEER, OCR'S HEAD OF POLICY, PUTS ON HIS ROSE-TINTED SPECTACLES AND IMAGINES HOW THINGS MIGHT BE...

“

It is the year 2023. Dean, a young customer support assistant, is composing an apology to a customer. The company messed up and he is determined to get the tone of the apology just right and to set out the reasons for the poor service as clearly as possible. No sooner has he sent his carefully worded message than the customer responds, thanking him for taking the time to explain the situation and assuring him of further custom. Meanwhile, Kiran, the trainee administrator, is looking through the sales accounts. It isn't really her job, but she is confident with numbers and enjoys running over the figures. She spots something that doesn't look right and wanders over to the accounts team to point it out. She does so in an appropriate manner, so as not to rub the accountant up the wrong way. The office manager watches his new employees – they are quite remarkable and they have one thing in common – they both have Functional Skills in English and maths.

At the local college, Tracey, a maths coach, is taking the class through their paces with some applied maths problems. She remembers the bad old days when she took classes for GCSE resits. It is very different now – nobody bunks off – even though the work is sometimes demanding as they struggle to improve the foundation skills they need in order to move on to real world problem solving. But nobody asks why they have to attend her class. They can see that the maths they are learning underpins the vocational and academic courses they are taking. They understand that they need to be adept at the essentials of maths in their everyday lives – knowing how to manage their credit cards and their mobile phone accounts, and being able to see through the data

that underpins health scares and political debates.

There is a wealth of material available online, of the highest quality, that Tracey uses to stimulate her class and get them arguing with each other in a (usually) productive manner.

“They can see that the maths they are learning underpins the vocational and academic courses they are taking. They understand that they need to be adept at the essentials of maths in their everyday lives.”

She knows most of the class will be taking both Functional Skills Maths and English tests at the end of next term. The diagnostic tools she uses shows they are nearly all making the right levels of progress. She is confident they will get the grades they deserve and that the tests will be engaging and fun, as well as challenging. For those who won't be ready in time, there will be plenty of further opportunities to take the tests. Students will also get detailed feedback on how they performed which is both encouraging and informative.

As for the tests themselves, she knows they will be relevant, with contexts which are plausible, relevant and clearly targeted at assessing their skills. There will be no quadratic equations and no boring, contrived scenarios about making chutney or building a run for a guinea pig. No scenarios with fifteen to twenty questions hanging off them that mean you have to scroll back and forth between those pages describing the scenario and those containing the actual

questions. Tracey is also pleased that the exam regulator has taken the necessary steps to make sure that the Functional Skills exam boards all have tests of the highest design quality and, crucially, that all their tests are of the same level of difficulty.

Tracey reflects on the fact that the newest intake of students at the college are noticeably different in their confident use of communication and numbers. This is because Functional Skills Maths and English classes are being introduced at Key Stage 4 and below in schools – not because this attracts school performance points that count towards league tables, not because the government has prescribed it in the curriculum, but because teachers, parents and pupils all value it, sometimes more so than the GCSEs. Even the universities are beginning to ask for Functional Skills instead of GCSE Maths and English.

Meanwhile, the latest Secretary of State for Education is enjoying a warm reception at a teaching conference. She is asked why the revised Functional Skills Maths and English qualifications have proven so popular. She lists the main factors: a careful, well-managed roll out; a period of testing and piloting with a willingness to make the necessary tweaks; the rigorous use of research; a recognition that Functional Skills must be different – very different – to GCSEs in both content and pedagogy; an avoidance of the 'parity of esteem' debate; a decent funding regime, leaving it to the professionals; and, she concedes, with a smile, a great deal of optimism.

[Email your comments to agenda@ocr.org.uk](mailto:agenda@ocr.org.uk)

JOIN OCR AT THESE EXHIBITIONS AND CONFERENCES SPRING/SUMMER 2018

APRIL

3 – 6

British Congress of Mathematics Education (BCME)

University of Warwick

We are delighted to sponsor the largest maths education conference in the UK. Come and visit our stand to speak to our subject advisors about our wide portfolio of maths qualifications. www.bcme.org.uk

5 – 7

Geographical Association Annual Conference

Sheffield Hallam University

We are pleased to return as sponsors of the GA Annual Conference which is a major CPD event in the geography calendar. OCR's knowledgeable team will be available to answer your questions on our geography qualifications and will be offering two workshop sessions. One is on effective preparation for 2018 exams, the other by explorer Fearghal O'Nuallain. www.geography.org.uk

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Westminster Education Forum Post- 16 Maths seminar

Central London

OCR maths subject advisor, Will Hornby, will be joining a panel of speakers at this keynote seminar on improving uptake, quantitative skills and teacher development in post-16 mathematics. www.westminsterforumprojects.co.uk

MAY

18

Historical Association Annual Conference

Crowne Plaza, Stratford-upon-Avon

We are delighted to support this conference for all who love and have an interest in history. It's an opportunity to explore new ideas in history and history teaching and enjoy a full programme of talks and workshops. Meet our history team on the OCR exhibition stand and sign up for the OCR session to hear more from our experts. www.history.org.uk

JUNE

22 – 24

National Association for the Teaching of English (NATE) Annual Conference

Conference Aston, Birmingham

Our English subject advisors look forward to meeting you at the 55th NATE Annual Conference and Exhibition. The theme for this year is 'So Many Voices, So Many Worlds'. With a variety of speakers and workshops covering teaching English in primary, secondary and beyond, this will be an unmissable event for those involved in the teaching of English. www.nate.org.uk

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JustMaths Conference

Alton Towers Conference Centre, Staffordshire

For the second year running, we are delighted to join the JustMaths Conference as headline sponsor. The popular one day conference will focus on GCSE and will include an exhibition, CPD sessions and presentations. Come and visit OCR's stand to speak to our subject advisors about our maths qualifications and sign up for our keynote address. <https://justmaths.co.uk/conference>

To join OCR at these events, visit www.ocr.org.uk/events to find out more

To find out about the wide range of online and face to face CPD events we are providing in 2018 to support the teaching of OCR's qualifications, take a look at www.cpdhub.ocr.org.uk.



PETER HINETT, IT COURSE LEADER
Halesowen College

'OCR's approach to
assessment is refreshing
- it works so well for
our students'

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