

CPAC – making your delivery even better

Catherine Witter, Senior advice manager, practical sciences January 2018

The first round of A-level science monitoring visits

- Ran from January 2016 May 2017.
- Centres allocated by JCQ.
- Visits were awarding body specific for each science.

- 2,857 visits to 2,651 centres.
- 2,486 first visits passed first time, needing no further action.
- 134 first visits passed first time, but extra evidence was requested in addition by email.
- 233 first visits did not pass first time, but passed on the second monitoring visit after support.
- 4 centres required three monitoring visits, with ongoing support throughout, before passing the visit requirements.
- A very small number of centres needed no visit due to consortium arrangements.



Joint council for qualifications (JCQ) provisional GCE A-level science endorsement results – June 2017 (all UK candidates).

Cumulative percentages achieved.

Subject	Gender	Number sat	Cumulative Pass
Biology	Male and female	53,946	98.9
Chemistry	Male and female	46,340	99.2
Physics	Male and female	33,065	98.8
All subjects	Male and female	133,351	99.0

Grade	Not classified %	Pass %	Total entry
A*	0.09	99.91	10,860
А	0.08	99.92	25,724
В	0.18	99.82	27,551
С	0.61	99.39	25,670
D	1.19	98.81	20,446
E	2.72	97.28	10,901
U	8.53	91.47	4,324
Total	0.91	99.09	125,476

gov.uk/government/news/guide-to-as-and-a-level-results-for-england-2017



Awarding organisation vision

- All awarding bodies feel very strongly that the new endorsement of practical work is by far the best way forward. Our collective vision is that, through this approach to practical work assessment, students develop a mastery of 'hands on, minds on' practical skills that prepares them better than ever before for undergraduate science courses, employment or further training.
- The assessment of practical skills through Common Practical Assessment Criteria (CPAC) now gives teachers the freedom to teach practical work in any way they wish as often as they wish, without the constraints of a mark scheme.



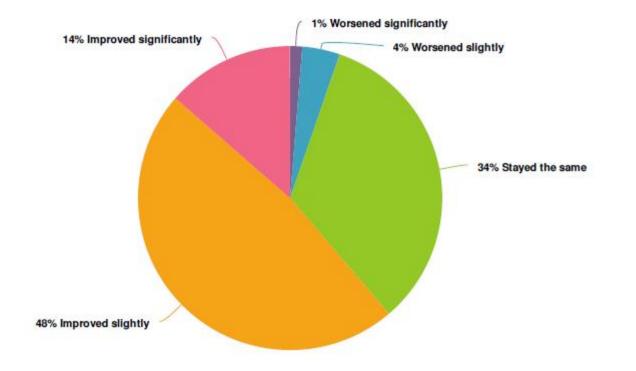
Our survey and direct experience was strongly suggesting that:

- direct teaching of practical skills will benefit student learning
- the new practical regime may promote student progression to HE and science careers (more motivated)
- cuts to school college budgets may further impact on the positive student experience (under-resourcing is potentially disadvantaging up to 40% of A-level science students)
- in the short-term, assessing student outcomes in practical-related exam questions and teacher perceptions of student preparation for these, should give an early indication of success
- the lasting impact will not be known for some years.



Feedback from 2017 practicals survey

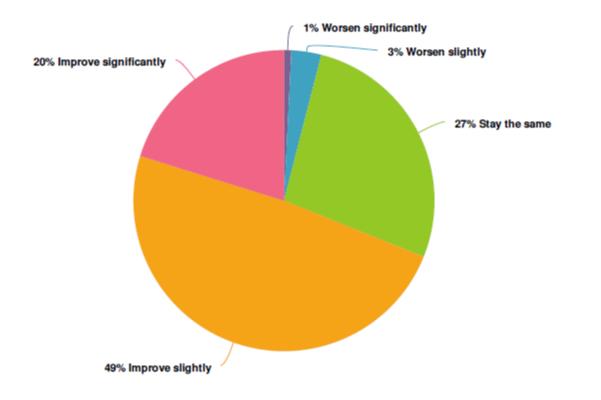
1. Since starting to teach the new specification, has the quality of teaching of practical skills in your school/college:





Feedback from 2017 practicals survey

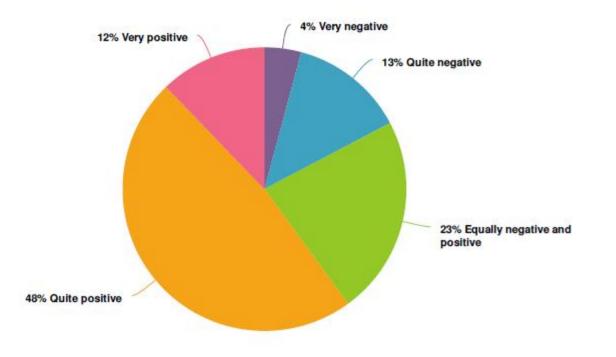
2. Over the next couple of years, is the quality of teaching of practical skills in your school/college likely to:





Feedback from 2017 practicals survey

3. So far, what is your view of the process for practical skills assessment in the new specification?





When asked "How has the new A-level science practical skills endorsement affected you, your team, or your school the most?" they said:

- "We have been able to buy more resources and the students take practical work more seriously. It's made our planning for practical work more rigorous."
- "It has enabled more continuity of teaching, delivering practical work parallel to the teaching of relevant theory. We always had to stop to deliver the ISA."
- "As a team it increased our workload initially but once we had set up all of our new ways of working it will be an easy system to run."
- "The competencies also feel like a true reflection of what lab work would be like if students choose to continue the subject at higher education or as a career."



Challenges highlighted in feedback

- "A lot of time has been spent trying to work out how to ensure all CPACs are covered throughout the practicals."
- "Although there is now no worry about marks being unfairly gained by other centres, the monitoring of our assessment judgements seems unnecessary, especially when the practical endorsement is not worth any marks".
- "The new endorsement is too much paperwork and there hasn't been enough support for teachers."
- "We have one group of 28 physics students, so we need more than one piece of equipment."
- "The guidance is far too vague on what should and should not constitute a skills being awarded."

Feedback summary: what went well

- High success rate of pass first time (approximately 90%).
- Strong teacher survey return rate (Spring 2016) and email correspondence with teachers, reflecting customer satisfaction of our approach.
- Increasing numbers of teachers wanting to take the adviser role, building advocacy.
- Direct evidence of student practical skills improving over time.



Feedback summary: areas to improve

- Engagement with our 'hard to reach' schools and colleges.
- Their improved understanding of the requirements and how our resources can be used to best effect as a result.
- SLT awareness of the support that science teachers need regards the delivery of practical work.
- Less schools requiring a second monitoring visit.
- To allow the percentage of students who have not had the greatest of experiences this series to reduce rapidly.



Task 1

Arrange the 16 cards according to how effective the activity might be to secure a Pass outcome for individual students in the practical endorsement

(10 minutes)

Task 2

Arrange the 16 cards according to 'Must or Should, Could or Won't' (MoSCoW)

(10 minutes)

What strategies will you take forward into your own teaching next series?



Published on e-AQA for teachers to refer to October 2017.



- Please rate this session on the **Sched Conference app**.
- Using the post-its provided, please write:
 - one thing you enjoyed about our session or will take away for your teaching
 - one thing you feel could be improved.
- Stick these on the feedback poster as you leave.

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Thank you