



OFQUAL Consu

- Third, instead

- permits UK universities to accurately identify the level of attainment of Learners.”

The current level of entries in Mathematics and Further Mathematics has been achieved only after two serious declines. The first, after 1990, was recouped slowly through the 90s – only to be more than wiped out as a result of the ill-considered changes imposed by Curriculum 2000. The resulting collapse in 2002/3 has now been numerically corrected – but only by adopting a structure which appears to be incompatible with the current proposals (including

- options which can be taken within Mathematics A level either as part of AS or as part of A2, and
- options which can be taken either as part of Mathematics A level or as part of Further Mathematics).

If Mathematics and Further Mathematics

“will not be able to meet these conditions” (para 75),

then it is hard to avoid the conclusion that the conditions have probably not been thought through.

These concerns are especially disturbing in a consultation which was launched on 20 June, with a response date of 11 September – dates which guarantee that the academic co48 0 TD(s)Tj35 0 T1(u)Tj48 0 TD(n)Tj48

Detailed comments on the consultation document (*italic quotes from the consultation document*)

Page 3: "Like all qualifications ... to make sure they continue to meet the needs of their users."

We are aware of no existing effective mechanisms whereby this can be achieved. As long as Awarding Bodies (ABs) reflected their historical roots (the Oxford, Cambridge and London Boards in the obvious way; in NUJMB in Northern Universities; SUJMB, WJEC, etc. similarly), any blatant failure to meet the needs of users was likely to be noted. From around 1990, A levels came to be seen as a 'school leaving certificate' rather than 'university matriculation', their perceived focus, design and operation shifted to addressing the perceived needs of students and teachers – and the old university links were steadily eroded, and now no longer exist.

The subsequent expansion of universities meant that A levels became once again largely 'university matriculation' exams. But the old links cannot be simply revived (if only because BIS and UUK have taken a view of universities which is incompatible with such routine involvement in school syllabus design and examining).

"the responsibility for developing core A level content ... will need to sit elsewhere in future."

This is true – but your response is hard to understand. We know of no effective system that does not have a central curriculum agency, with responsibility for cultivating cumulative expertise in such matters.

"These studies have helped to inform the proposals that we set out"; also para 38:

We feel distinctly uneasy about a national agency which lacks the necessary in-house expertise and so has to depend on externally "commissioned studies" to formulate national policy. Even were such a study to do as good a job as it could be expected to do, it could never achieve the level of insight needed to guide a national system without overlooking key constraints.

Page 5: "I would encourage you to take the time to respond"

The words are welcome. But they are incompatible with

- (i) the failure to recognise that there is as yet no viable mechanism for HE involvement, and
- (ii) the timing (20 June – 11 September) of the consultation.

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para 2: We suggest that Ofqual should not have proceeded to draft "proposals" and to carry out a "consultation", until it knew that the essential preliminary decisions and actions, which fell outside its remit, were being effectively addressed. We do not expect some form of public protest from a national agency. But it is unacceptable for this central responsibility to be off-loaded onto awarding organisations in the hope that their ad hoc arrangements may suffice instead (see second bullet point on page 1 above).

para 4: "system in which the HE sector is meaningfu

para 12; para 37: "A levels perform well against their international equivalents"

We have already expressed our misgivings about inferences based

The reference to these elusive notions as “skills” too easily slides into the suggestion that they can be taught and tested separately. We would welcome a clear statement that, insofar as these “skills” exist,

they arise as a natural part of standard content, and need to be cultivated and assessed as such, not in some disembodied way. (See comment on para 63.)

para 39: “for universities to determine”

This is not as simple as you assume. It is unclear what would be meant were one to claim – much more modestly – that a single “university” had expressed a certain preference. (Does this refer to the view of a single consulted mathematician or an engineer? Or is it the consensus view of concerned academics throughout that university?) In the absence of any plausible mechanism for involving “universities” in a natural, reliable and accountable way, the collective attribution

“for universities to determine”

is no more than word-play.

para 40: “consistency”

This completely ignores the fact that the clientele at age 16-18 is now exceedingly broad.

The problem is not that there may have to be “exceptions to the conditions”: one cannot treat 50% of a group as an “exception”!

Nor does the problem arise solely because of “the particular needs of specific subjects”. Mathematics A level entries have risen from 52 000 in 2002/3 to 86 000 – in (large?) part due to the flexibility of the current modular arrangements (this modularity is part of the course design, and is in no way in conflict with end-of-course ‘linear’ assessment).

This suggests both

- that it makes sense to think in terms of a potential number of entries of over 100 000, and
- that the number who may be comfortable with a wholly linear structure may only be around half this figure.

Any organisation that cares about encouraging improved participation in mathematics should hesitate to impose restrictions that put “consistency” above participation.

(We note that some responses have stressed this as an “equality issue”. It is in fact more basic. We need to consider how one might make courses with linear assessment a prerequisite for seriously numerate degree programmes, while possibly offering differently assessed courses with a very similar syllabus for those with less ambitious goals – leaving candidates to “upgrade” if they need to. That is, we may need to abandon a rigid notion of “level 3 programmes” and to accept that some 16-18 courses are more demanding than others.)

para 41: “However, ... to recognise achievement”

This change occurred somewhere in the late 80s, when many of those in the “new sixth form” (who may have stayed on because ‘benefits’ were no longer available to 16 year old school leavers) signed up for A level courses without intending to go to university.

The recent expansion of universities means that almost all (80%?) of those taking A levels are now aiming to go to university – so the original function of A levels as ‘university matriculation exams’ has been largely restored.

para 43: “ensure that students have acquired any specific skills and knowledge that they need”

We would not wish to speak for other subjects, but in Mathematics this means that

Ofqual have to face the need for a core and for subject criteria.

This is further underlined by para 44/Condition 1.

(The recent SCORE and Nuffield reports – on the mathematics required in other A level subjects – revealed serious shortcomings in the way mathematics is currently required and assessed at A level in the sciences, computing and the social sciences; but the inference was of a clear need for stricter central specification of the mathematics to be required and assessed.)

paras 48-55: There is so much confusion here that it is difficult to comment intelligently. Option 1 has presumably been included as an Aunt Sally – so most will choose between Options 2 and 3.

- 149 000 students took AS Mathematics this summer. 66% of these achieved a grade C or better – most of whom probably intend to complete A2 next summer.
- This suggests that around 60 000 of these 149 000 students currently stop after completing AS Mathematics in Year 12 with a flimsy grasp of the material.

For some reason you ignore “Option 4”, which would reflect the original inten

para 74, Condition 8: This is an attempt to devise an alternative to the (missing) prerequisite mechanism for ensuring that the involvement of HE is reliable, accountable and representative.

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The London Mathematical Society (LMS), founded in 1865, is the UK's learned society for mathematics. The Society's main activities include publishing journals and books, providing grants to support mathematics and organising scientific meetings and lectures. The Society is also involved in policy and strategic work to support mathematics and the mathematics research community. This work includes engaging with government and policymakers on mathematics education and research, participating in international mathematical initiatives and promoting the discipline.