

A vision for the future of A-Levels

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Thank you Peter, good morning to you all.

A-Levels are a quintessential feature of the English summer, rather like cricket and Pimm's and so on, so it seems a rather peculiar thing to be talking about them to an audience ravaged by the early winter, but anyway I shall see what I can do.

So I thought I would start with a quotation from Anthony Seldon – “in 2010 the British examination system is like the Austro-Hungarian empire 100 years ago, crumbling apart, incoherent and unfit for purpose”. Now I thought that would be a good place to start because Anthony Seldon is probably one of the more vocal of the critics of A-Levels and the general line is that they are dull exams, that they lead to dull teaching, that they are taught in exam factories and that they drive out learning and creativity and what I want to try and do this morning is actually stand up for A-Levels, rebut some of those criticisms, I want to talk a bit about the way A-Levels have evolved and developed, identify some of the weaknesses and some of the concerns that there are about them and then propose some, I think actually, relatively straightforward reforms that might deal with a lot of those issues.

So I think the first point to make is that the comparison with the Austro-Hungarian empire is rather fundamentally misplaced. The Austro-Hungarian empire lasted 51 years, A-Levels at the moment have survived 59 years and of course the reason they have been able to do that is that they, like any successful evolutionary organism, have managed to adapt, they have adapted to major changes in education and society, but most fundamentally, I think, their function has moved from being an exam that provided competitive ranking for the relatively small number of candidates going to university in those days, to what I would call a mass certification of specialist secondary education, as indeed the name of the exam, a General Certificate of Education suggests.

So let's just focus on what the main features of that changing environment have been.

Firstly I think there has been an enormous increase in the number of candidates taking A-Levels. In 1951 when A-Levels started, approximately 7% of the age cohort took A-Levels, that rose gradually to 15% in the 1960s, 20% in the 1980s and today it stands at over 40%, so the cohort taking A-Levels has changed and expanded very significantly and I don't think one would expect any qualification, or indeed anything that was supporting a group of people, where the group of people had grown and changed so radically, itself to remain unchanged.

The other big issue is in terms of what happens to the candidates taking A-Levels and again the standard route, I think it is fair to say, has been into higher education, although that is something that has very much developed towards the end of this period. In the 1960s there were approximately 30,000 places in higher education that A-Level candidates were competing for, and that now has grown to half a million places. Similarly school leavers with A-Levels going into HE in the 1980s was less than 50% and that has grown not to somewhere between 74 and 78%. So there have been huge changes in terms of the candidate base itself and of where that candidate base is going and those have very radically influenced the way that A-Levels have developed.

Also very important is the whole issue of subject coverage. In 1951 there were 32 subjects offered in A-Level and that had increased by 2001, the time of the introduction of Curriculum 2000 to 84 subjects. As long ago as 1951 the scientometrician, Derek de Solla Price, postulated the theory that the total number of scientific papers doubles every 10.4 years in fields of general science such as physics. In his book 'Little Science, Big Science' published in 1962 he pointed out that 80-90% of all scientific work achieved is carried out within living memory and I think what he was alluding to is the explosion of knowledge that has taken place in modern society, and A-Levels of course needs to reflect that, just as that is reflected in the different range of subjects studied and offered at HE, so it

needs to be reflected in what is offered at A-Level. So the changes in subject domains have also, as well as these other socioeconomic factors, been very important in terms of changing the way A-Level is designed and structured, and just to give a feel for that, some of the subjects that have come out since the 1950s: the British constitution; geometrical and machine drawing; woodwork; handicraft; and some of them that have come in: Chinese and Japanese; various community languages; computing; environmental science; music technology; sociology; and so on. I have just picked out a few really to give a flavour of the principle that A-Levels have adapted to the changes in subject domains that have taken place within society and within education generally.

The other big issue, I think, that I want to touch on is the whole question of attainment levels, because this again is something that features very regularly in the commentary every summer, and this is a diagram or a graph showing the changes in A-Level passes from A to E, from 1965 to the present and of course everybody is familiar with the fact that those figures have gone up and similarly the bottom line is the entries which did not pass and those have gone down, so quite a dramatic change in terms of the pattern and of course one of the main changes is shown, if I can work this pen, round about there where there was a shift from norm referencing to criterion referencing. Under norm referencing about 30% of the....well indeed it is actually 30% because it was done on a norm reference basis, of candidates failed each year because that was the allocated quota of fails and I think one of the reasons A-Level has adapted successfully actually is it is not an exam which has a design parameter requiring a large number of its candidates to fail each year, that's quite an important thing, I don't think it makes a less good or useful exam, but nonetheless that's I think, fairly well rehearsed anyway.

And also again just to give a slightly more granular feel for it that's the pattern in a series of subjects chosen pretty much at random. I have got German political studies, French, Geography, Economics and Computing, there the base state is 2002, the introduction of Curriculum 2000, and again the point I am making is not really about any specific subject but just in terms of the general upward migration of attainment levels with A-Levels.

Now this is a slightly different graph and I think it is quite helpful to put what I have just been describing in A-Levels in context. This is the proportion of students getting first or upper second honours degrees and the point I am trying to make here is that you see exactly the same gradual upward migration in attainment levels, in other words what I have been identifying in A-Levels is not unique to A-Levels, it has also happened in the degree system and again another graph showing this, on the left hand side you have the first and third pass degrees and the first of the dark blue lines and the third and pass degrees are the light blue lines and then you have upper seconds and lower seconds on the other one. Again it just gives you a feel of the way that this pattern of rises in level and attainment has actually been common throughout the education system, it is not confined to the school system or to A-Levels.

What's actually driven this, what's behind it, how do we explain it? I think there have been a number of factors in the case of A-Levels. We had a conference earlier this year on the whole.....a standards debate organised by Cambridge Assessment and these are some of the sorts of issues we focused on. Firstly I think the emphasis on improved accessibility and transparency, I have talked about the huge increase in the cohort of people taking A-Levels, and inevitably A-Levels have adapted somewhat to support that much broader range of candidates and probably rather a broader range of abilities. Modularisation and retakes have been a very significant driver and the recent education White Paper singled out the whole issue of modularisation as something that it wanted Ofqual to focus on. I think it is very important to recognise that the....I don't think there should be a one size fits all solution to this, there are some subjects that lend themselves to modularisation, there are some subjects that are better taken in a linear format and again there are some candidates who prefer modularisation and there are some candidates who prefer a linear format, and at the moment we have quite a good system that provides multiple options. There are people who take modular A-Levels all at the end of 2 years, there are people who take non-modular exams such as the Cambridge Pre-U or the International Baccalaureate, there are also people who actually find the experience of modularisation quite useful as a way of trying to work out what they are good at, it

permits them to start specialising and also I think one shouldn't ignore the fact of many people doing retakes is a form, if you like, of high stakes trials, it's a good way of rehearsing for exams and that's not to be written off lightly.

I think also there has been a major shift from knowledge to skills based pedagogy and that has been accompanied by some atomisation of the syllabus and of assessment content and, of course, modularisation, in a sense, lends itself rather to that, that's not necessarily a desirable thing but I think it is also reflected, perhaps, in the fact that module is another standard way of doing university degrees, again this atomisation of modules, this huge expansion in the corpus of knowledge means that modularisation is a much more frequent feature of all courses of instruction.

I think there is the benefit of the doubt factor inasmuch as each year when A-Levels are being awarded when examiners are doing their work they tend to want to give candidates the benefit of the doubt if they are on an exam grade boundary and in effect you then get a compound interest effect as year after year you are getting benefit of the doubt, and it slightly ratchets itself up and I think that is probably one of the drivers behind this. But most of all, I think, there is the whole issue of the difficulty of internalising a standard during a period of rapid change. There have been so many changes in A-Levels, not merely Curriculum 2000s, but there is now talk of moving from modular to linear, there have been all sorts of changes in different subjects, the accreditation cycles run on a 5 year cycle, so you are dealing all the time with a constant set of changes and my suspicion is, if one compares, for example, what has happened with the IB and the claims that the IB has managed to maintain a standard, what has happened with A-Levels, I think this whole issue of rapid change is one of the things that makes it very difficult for all those involved in delivering the system, the examiners, the teachers, the educationists, the pupils, actually to internalise the standard because the goal posts are moving all the time and I think that actually makes the whole issue of trying to hold a standard that much more difficult.

And then finally, and again I think this is very significant, there is a whole issue of what I call climate of expectation, there has been an institutional assumption of continually rising standards which means that people in the Department of Education or whatever it is being called over the many years people in the regulator, people in schools, parents, everybody has been very ready to live with the idea that standards are going up all the time, they haven't been ready actually to say – does this really make sense, does this coincide with our experience of reality, do we actually believe it, and I think this whole issue of a climate of expectation is something that supports the sort of rise in levels of attainment I've talked about is very key, very critical, it's that essential social environment that has supported this.

So what's the impact of all this been? First of all there is obviously much less information available to employers, but more particularly to HE to discriminate between candidates and that's a serious loss and it has also happened at a time when they have had much less money and much less resource to invest in the whole process of managing admissions. Also there have been many complaints about lack of student readiness for higher study and employment, particularly focusing, I think, on writing skills and skills of argumentation on certain softer social skills, which you wouldn't necessarily expect to be a direct consequence of the learning that people do for A-Levels, but you would expect to be associated with it, but more generally I think there has been a loss of confidence in the system as a whole that we need to try and tackle.

There have been some other issues which I think it's important to focus on. One of them is the risk averse focus on exam results. We have moved in to what I call the high stakes society, the ability to get into higher education, to get a degree is something that critically affects peoples' life chances and as a result people are much less ready to take risks with exams, so they think that they can be reasonably sure of getting the "right results" with A-Levels, 3 A's, 2 A's and a B or whatever, they are much less likely to be amenable to experimenting, to trying new things, to doing different things and when Dr. Seldon talks about the glory days of the 1970s, and I happen to remember them well because I am about the same vintage as him, it was a much less formal system, it was much less

high stakes, there were many more second chances. Those don't exist now and I think that has changed the nature of the game in a very significant way.

Also another criticism often made is that of the burden of assessment and lack of curriculum space, and again it is the same argument, there is not enough time to look at your subject in rather lateral ways, to wander off the beaten path and so on. Perfectly valid criticisms, but I think one has got to remember, actually, that the burden of assessment to which this is normally ascribed, is not really very different to that in other systems that are highly rated. The IB I think has 22 hours prescribed, whereas A-Levels only have 21 hours prescribed and the Finnish system, in fact, has 24 hours prescribed, and the thing that actually increases the burden of assessment is the number of retakes that people do, the whole process of modularisation and how they approach and manage it, so it's a management issue and it is a matter of the way schools approach the task, it is not actually fundamental to the nature of A-Levels themselves.

I think also very critically there is the whole issue of the lack of advice and clarity about the needs and requirements of HE and employers. One of the things I hear quite frequently – and is rather distressing – is that you get young people who take inappropriate A-Levels because of a lack of clarity sometimes about what universities expect and require. For example, if they want to go and study physics at university, doing media studies and law is not actually going to help them. There is a real issue here that universities and employers need to address.

Right, well I think time to look at a few positive features. I said I wanted to stick up for A-Levels and rebut Dr. Seldon's criticism. Whilst we've identified some of the weaknesses, we also need to recognise and protect the positive features of A-levels. Firstly, they are very flexible; our researchers identified about 22,000 different combinations, the most popular - maths, physics and chemistry - being taken only by 4%. This both enables a very wide group of students to be catered for - and flexibility must be useful in a rapidly changing world.

Secondly, there was a lot of talk about having 4 year undergraduate degrees because people weren't properly prepared by these qualifications. I don't think that, as a country, particularly now that students are paying ever higher fees, we want to drift into 4 year courses. That's not a luxury we have. In fact A-Levels do offer deep specialisation for the high intensity, short duration, HE system of 3 years and I believe we need to support that. Thirdly, of course, the A-Level was originally designed to allow a wide range of curriculums to be delivered through a broad range of school and college types, unlike other pre-packaged, as it were, qualifications designed for a certain type of student, a specific school ethos and a defined curriculum approach. Finally, perhaps the qualification's most powerful strength lies in its ability to predict, with quite high accuracy, whether a student will be able to take advantage of a course in Higher Education – what our researchers call predictive validity and what they spend much of their time on looking into.

But there are challenges – so how do we deal with them? Certainly the White Paper talked about a greater role for HE in A-Levels; in syllabus ownership and design. That is undoubtedly very important, and we would support that.

HE used to require certain qualifications in order to study there – called matriculation requirements in the past. That doesn't happen any more but I think HE can be very explicit about saying what skills and what knowledge they want people coming to study certain subjects in their institution to have. They have been inhibited about that because of concerns about access and an access agenda. However, even taking that into consideration, I believe HE has a role – and a duty, actually – to be much more specific about this if we are to deal with some of these issues. That kind of clarity would lead to something we might perhaps call 'soft matriculation'.

As a corollary to giving those clearer signals to students, there is a role for HE on quality assurance of, and subject input into, the A-level qualification itself. As the principal organisations using the majority of A-levels for the purposes of placing students on the most appropriate higher level courses,

HE should play a major role in defining course content. And, just as naturally, HE will have thoughts and preferences about course design and its assessment – which should carry much more weight than they do now.

But, and I think it is a big ‘but’, such engagement has got to be supported by some sort of incentive for HE to do this, there has got to be some sort of process of institutional engagement, beyond a mere consultation process. One can go far with consultation, of course. Our UK exam board OCR has recently formalised its arrangements with Higher Education by creating an HE Consultative Forum, together with a number of HE subject forums. A while before that, the Cambridge Pre-U from our overseas exam board CIE, was designed with interested parties from Higher Education actually being part of the design committees. Nevertheless, we - by which I mean Higher Education, exam boards and government – need to explore a variety of mechanisms. Perhaps small amounts of funding from HEFCE might enable staff to be released for engagement with exam boards, the Research Excellence Framework could recognise such engagement possibly through its impact criteria, or the Quality Assurance Agency Code of Practice on Programme Design could be adjusted.

So far as standards are concerned, we need a move from state regulation to setting up what I call communities of practice. Again, I think one of the reasons the IB and Cambridge Pre-U have been so successful is that they have got a community of practice of the users of exams, by which I mean HE, learned societies and subject communities; and setters of the exams. They are not subject to change all the time, they are not subject to Government pressures. I am certain that we can create that with A-Levels by enlisting HE, by using the awarding bodies and by working closely with schools. And because these groups will work together, continually improving their understanding, they will own the standard and protect it in on a day to day basis against the vagaries of pedagogical or political fashion.

One of the main things that’s distorted what we do has been a search for inter-subject comparability and that means that subjects have had to be forced into regulatory templates in order to achieve that in a way that I think is not very helpful. Should all subjects look the same, with the same shape and structure? There has got to be much less emphasis on this kind of comparability. And I understand that the Secretary of State is less interested in this aspect of qualifications than previous job-holders – which can only be helpful. We need to move away from such templates back to the main purpose of the qualification – the provision of information to HE about the candidate. So to finish, one of the ways one would deal with this would be through what I call more informative certification.

The idea behind this is that if you have more granular information available, people can make their own minds up about how suitable candidates are for certain forms of study, and how well they have done in that particular subject. By making that information available there’s less pressure for these rather artificial and mechanical comparability regimes, which don’t take into account important questions that need to be considered. If you look at this example I’m putting up now, you have something like this – which is the distribution curve for your particular subject. This is A-Level Chemistry and you’re the candidate represented by the red dot, with a border line AB, 475 UMS marks. Anybody looking at that knows straight away how well you did in relation to the cohort as a whole, to all the other people taking chemistry. You can compare it to this slide which is an A-Level in Applied ICT, a candidate with 450 marks in this case, slightly fewer marks, a firm B, but as you can see completely different distribution curve. The difference probably is because chemistry is something that people have to take if they are going to do medicine, so it is very competitive, hence the skew is slightly towards the upper end in chemistry in a way that it isn’t in this. The distribution curve and the place of the candidate on it enables a faculty to take a much more accurate view on whether that candidate is suitable in that subject for that particular HE course. So the whole issue of inter-subject comparability becomes less important when you have got this sort of information available.

And we also have the opportunity to summarise candidates’ achievements. On this slide you have got a candidate who has done English A-Level, History A-Level and Russian A-Level and the curve here is the spread of all the A-Level candidates for that year, so it gives you a rough idea where they have

performed in relation to the whole cohort. More importantly, it gives you the fine grained information on the left in UMS scores and on the right, broad information in terms of grades. In addition, it shows where the candidate stands, by deciles, in relation to other candidates taking the same subject as well as an indication of the candidate's overall performance. My point here is that this actually forces you to start thinking about who the candidates are and how they're performing on a larger scale. The challenge for HE is then – how do you rationalise a student's performance – and by doing so you are not focusing on inter-subject comparability to quite the same degree.

I won't go into this because I am about to stop anyway. But I will finish with that picture of the last Austro-Hungarian emperor, at his coronation, only two years to go, I would venture to suggest A-Level has much longer than that.