

What should we teach six formers?

The world of digital data and Artificial Intelligence poses interesting questions about what young people need to learn and how much they should be able to rely on their personal computers and phones.

Clearly everyone needs to be given a basic training in how computers work and how they are programmed, as so much of modern life requires use of these items. Using AI in teaching and preparing answers is going to happen, so pupils need to be trained to check sources, question what the AI answer says, and to develop an understanding independent of the computer. There will need to be more reliance on exams rather than coursework to check what young people know for themselves when the computer is turned off.

As an employer I have come to value enthusiasm for the job in hand, an interest in the issues and subject matter of the job, a sensibly critical approach to data and analysis and above all honesty about what the person is doing. A lack of knowledge or training can be remedied, but a lack of interest cannot. Ideally you find someone who has immersed themselves in what you are doing because it is their hobby as well as their future job. People who are really good at things do a lot of them. The more I practice the luckier I get.

Six formers do need to hone their language skills to communicate and to analyse problems. They need maths and statistics to handle data and resolve problems. Above that they can get started on more advanced study for whatever they wish to do as a degree or technical qualification.

I would not wish to stop young people studying a few subjects in greater depth as preparation for university, or specialising in technical qualifications to set them up for a good job at 18. The A and T levels have a role going forward. Equipping all better in maths and English can be achieved by doing more before 16 and changing the maths and English options for GCSE.

Learning at school

The Direct Grant school I attended with a free place by exam did offer us extra maths and English education beyond GCSE (then O level).

We did Maths and English O levels a year early, and then offered Additional Maths and Further English Studies at the end of the fifth form with public exams. This meant we did tackle calculus, trigonometry and more complex algebra and geometry. The average age of the class to take English and maths O level was a bit over 15. I took them around the date of my 14th birthday as I had jumped a year at primary school.

We took the French O level at the end of the first term in the fifth form and

had a two term course encouraging us to read French literature with no public exam at the end.

I took 5 more O levels as well as Add Maths and Further English Studies at the end of the fifth form.

In the sixth form we had to take a Use Of English exam which we were told some universities required , and I sat 3 A levels in Economics, History and English.

My experience of the fourth and fifth forms was of hard work with a lot of rote learning, but some good grounding in basics that were needed later on. We were taught from a text book or from a lesson plan designed by the teacher. I found latin particularly testing, exacerbated by not enjoying what you could read when you managed to understand a bit more of it. I was not interested in Caesar's Gallic wars or Vergil's Trojan wanderings. I disliked the Roman invasion of Britain and their slave based system.

My experience of the sixth form was transformational. My History teacher taught us a crucial lesson at the start of the A level course. He told us we needed to read widely and find out about the subject. He could not do the work for us. He was not going to tell us how to answer questions. I realised it was up to me to spend time reading. I needed to set myself high standards and form my own judgements about the questions and issues raised. I did not have to stay for the sixth form and teachers were not going to accept responsibility for my choice to stay and study their subject. I needed to be really interested in it myself.

The first two terms were very difficult. I was very self critical, aware of how little I knew and struggling to find a style of writing which did justice to my thoughts and knowledge as it grew. The English course provided part of the answer. The teacher told us to ignore the set texts of the A level syllabus for the first year and spend the time reading widely to get a sense of the span and range of English literary output. Best of all we were asked to write an essay about a different Shakespeare play each week. This enabled me to study the best writing and phrase making. If you want to write well, read well was a phrase I subsequently came across.

My A level experience was further changed by winning an open scholarship to Oxford by examination in the fourth term of the sixth form. Suddenly all I needed was two grade E passes at A level to qualify for a student grant. Oxford did not require A levels as they had examined me in four 3 hour exams already. I chose to continue with my 3 subjects but was even freer to study them as I saw fit. The School kindly arranged a readers ticket for me at the local University library to give me access to more material.

It meant when I arrived at Oxford I was well advanced in my studies . The College kindly procured a pass for me to attend seminars for research postgraduates to be closer to the cutting edge of the subject. I will draw some conclusions about what we can learn and how we can learn with help from a school from my experiences in a later blog.

I sketch this as it serves to remind us that schools can show flexibility if they wish, and more maths can be included before entry to the sixth form.

A Levels

I read that the Prime Minister is considering reforming A levels. It is not something I have ever urged and I would be interested in views from readers.

The case seems to revolve around the idea that everyone should do maths beyond GCSE level, and maybe continue with English. To accommodate this presumably the depth and range of other subjects at A levels would be reduced to allow more time for extra maths and English.

If someone wanted to retain the current range and depth of maths and English as A level subjects perhaps they could be retained as they would not need to study the general English and maths options for all other students. Or maybe the aim is to get all students taking more subjects in the sixth form so those wanting to specialise in maths and or English would still do the general courses and offer more other subjects.

The impact of these reforms would be people would have more range of knowledge but less depth of knowledge at the end of school, with a bigger gap to the degree level on arriving at university. All should have better skills in maths and English.

I will comment tomorrow on my own experiences at school.

My Intervention in the Tata Steel: Port Talbot Ministerial Statement

John Redwood (Wokingham) (Con):

Have the Government ascertained that there is enough old steel and metal around for the recycling facility? Do their wider plans for steel in the United Kingdom include retaining capacity to produce new steel?

Ms Nusrat Ghani, Minister for Investment Security:

My right hon. Friend is always absolutely hot on these topics. There is enough steel, because we export so much of it and we can now use it on the site. Considering the age of the current furnaces, the reality is that electric arc furnaces are, within the timescale, the best way for us to transition. There is of course a supply chain in place that enabled Tata to put the business plan forward, for it to commit a substantial amount of money, and for us to support its plan.

Comment Others took up this issue in the exchanges. There is a need for the UK to retain capacity to make new steel, and not to be limited to just producing remelted old steel. The UK needs to have the capacities to make new steel and to be able to transform that steel with alloys into the specialist products needed for advanced manufacturing.

Comment. In a subsequent exchange the Minister accepted the need to keep blast furnace capacity somewhere in England. Others pressed the point that we will need some new steel as well as recycled. There are still issues about the supply of domestic scrap to Port Talbot when the arc furnaces are operating.

[Answers to my Written Parliamentary Questions – jobs created by wind turbine installation](#)

Department for Energy Security and Net Zero provided the following answer to your written parliamentary question (198577):

Question:

To ask the Secretary of State for Energy Security and Net Zero, how many jobs have been created in the UK to manufacture wind turbine (a) motors and (b) blades in the last 12 months. (198577)

Tabled on: 11 September 2023

Answer:

Graham Stuart:

The Government does not hold this data.

The Office for National Statistics estimate that the offshore wind sector employed around 10,600 people across the UK in 2021.

The answer was submitted on 19 Sep 2023 at 11:38.

Comment. World data tells us China is the dominant supplier of wind turbines and solar panels. The much vaunted green jobs so far have largely been created in China.