

Nuffield Review of 14-19 Education and Training
Aims, Learning and Curriculum Discussion Paper 6
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ORGANISING A RELEVANT CURRICULUM

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A response to the questions raised in the first working group meeting and Richard Pring's summary paper.

- What educational values should guide future 14-19 educational developments?
- What kinds of curriculum and learning experiences are needed in the 14-19 phase to meet the needs and aspirations of all young people and of the wider society?

This debate is both deep and wide ranging. I hope this paper, whilst starting with broader insights, will contribute to the debate in more specific ways and suggest some steps forward. By no means, however, will it contain all the answers. Perhaps this is good thing because the educational process, by its very nature, is boundless and continuous. Perhaps we should not be too obsessed by the wish, therefore, 'to get it all right'. Neither should we be content, however, with processes and systems which give our youngsters a disservice and lack of clarity, relevance and direction at a critical time in their lives.

Different educational perspectives

Educationists can view the purpose of education from very personal and individual perspectives. By this I mean the educational experiences we have had ourselves as children and young adults in our schools, colleges and universities, and, indeed, our family upbringing, are bound to have affected our opinions about and attitudes towards what we consider to be 'educationally worthwhile' for the children of today. The view of education as a lifelong learning process for individual fulfilment is a very different one to that of a process which leads to a specific qualification enabling the first step

towards career success and the employment market. Perhaps the 14-19 phase helps sharpen the focus.

Is the grander view of education as a lifelong process indeed too luxurious a view to champion? Isn't the process, at the end of the day, mainly to do with securing our children with realistic and fulfilling employment opportunities which match their talents and skills?

The educationist who is concerned about the lack of chemistry teachers in our schools leading to the consequent dearth of chemists in British industry is coming from a very different direction from the educationist who is seeking a totally individual centred approach to education relying on students' interests, aptitudes (and whim) to take themselves wherever they wish to go. Should we even be taking heed of a young person's enthusiasms if it is not in the interests of society or the economy? Or should educational institutions apply influence and provide direction? There are questions of freedom and constraint here. Notions of social engineering come to mind and conflict between individual and state.

The answer, as with most things, perhaps lies in a balance between the two motivating sources. One would hope that society gets its fair share of qualified scientists and engineers while at the same time schools and colleges provide a fulfilling and worthwhile education for the majority of students going through the system. But I suspect life is not as simple as this, as economists and demographers take on wider overviews of trends and movements, supply and demand.

The subject based curriculum

No more is the influence of educational background seen than in the subject a teacher chooses for qualification and specialism. School departments, as well as possibly university departments, can create an aura around their subject area which takes on a seemingly different culture, logic and language. There is nothing wrong with being passionate about one's subject if such teaching can motivate and spark that flame of curiosity and enquiry.

But there is surely an inherent danger in every subject specialist considering their subject to have most worth, or certainly equal worth to any other, and what's more,

teaching it for a living. There is the potential for subjects to become blinkered in their approach to learning which protects and closes rather than opens up lines of enquiry.

Can subjects and their teaching and assessment become too self-perpetuating and resistant to change? A comedy sketch by Michael Bentine once displayed the cultivation of a special plant which required artificial conditions in order to grow and survive, including a certain type of cover or mat to its tank. The only suitable material for the cover of the tank had to be made from the plant itself which became the sole purpose for its cultivation. Could teaching a subject be a bit like this?

Faculties or subject departments within schools certainly can be defensive and sometimes blind to potential connections and links between them. Somehow, the bigger picture can be lost. Children can easily fail to transfer a skill learnt in one area of the curriculum to another. Teachers may complain about the standard of English in the scripts they are marking in history or science, for example, and yet those same students might achieve high grades in their English language assessment. One explanation might be that these students fail to articulate across subject areas because they get locked into subject terminology and expectations. The natural flow of language and understanding can be stifled.

(A relatively recent experience in teaching history to a Year 9 class on the North American Indians involved the department being completely oblivious to the fact that the same classes were creating models and sculptures of North American cultures of the same period in their art lessons. This only came to light through an art display in the school foyer. No teacher or pupil had mentioned or identified the connection in lessons. How would a primary school teacher have approached this topic I wonder?)

Similarly, I have come across students who have been confused about the different way statistical and graphical correlation has been taught in the subjects of maths, science and geography. Should not the technique be common to all?

Option time at 14 in a school can be a bewilderment to the able student who is good at most subjects. It can indeed become a lottery, particularly as the number of subjects increase and create further constraint. Popular subjects gain; less popular, possibly, but not necessarily, more traditional subjects, lose out. Although schools will vary according to the strength of departments and the personality of teachers (still a very influential factor) there is evidence to suggest a growth in popularity in PE, sport

sciences and media studies at the expense of history, geography and modern foreign languages at the GCSE level.

The question of balance again rears its head. We need to face the question as to what knowledge and skills we (as educationists, economists, politicians?) consider to be essential to know or learn in today's world. Have we got our understanding of the 'core' right? What can we afford to exclude, and not to exclude? Are we concentrating too much on the importance of subjects at the expense of skills?

The educationist with strong humanitarian values might want to argue a case for humanities subjects lying centrally within the 14-16 core. And yet they are not. Similarly goes the way of modern foreign languages and the expressive arts.

Is the application of the national curriculum at Key Stage 3 sufficient prior to the choice and disapplication allowed at Key Stages 4 and 5?

Should distinct areas of knowledge be recognised as compulsory and retained in Key Stage 4 curriculum programmes? The following seven areas (English, maths, science, humanities, modern foreign languages, design technology and expressive arts) would seem to cover a pretty comprehensive area of knowledge and skills but is it right only to include the first three in the 14-16 core?

This is not as simple as it first seems when you start to break down each of the above areas and find further subjects within them. For example, the study of statistics within maths, media and literature within English language, chemistry, physics, biology, health and social care (applied GCSEs included) within science, history, geography, RE, integrated humanities, economics, business studies, leisure and tourism within humanities, textiles, food and nutrition, resistant materials, graphics, electronics, manufacturing, engineering within technology, drama, music, dance, art and design within expressive arts and so on.

Suddenly, seven areas of knowledge quickly can expand into twenty-seven. And this is before the importance of ICT, personal/social/health education and citizenship become part of the equation.

Several questions need to be raised here:

- What do we mean by a 'subject' or 'area of knowledge'?

- Should citizenship, for example, be regarded as a subject with a discrete timetable slot or should it, along with ICT skills, be considered more generically across the curriculum?
- How should schools address the overcrowded curriculum at Key Stage 4?
- What advice should we be giving to students with so many subjects to choose from and how do we help them achieve relevance to future aspirations and balance?
- Who makes the decisions as to what is essential to study and what is not?
- Can we afford to leave out the learning of a modern foreign language at this level?

In many schools, the studying of a language is no longer compulsory and this is having an alarming effect on take up at Key Stage 4, resulting in an excess of able language teachers. Why, for example, might the learning of a modern foreign language be considered less important than the learning of mathematics when one looks at the usefulness and relevance of the two subjects in later life?

In terms of historical knowledge and events I have always thought an understanding of economic and political revolutions, together with the causes and consequences of world wars, were pretty important to grasp at some stage in the secondary school curriculum. But history remains a relative minority option subject 14-19 in most comprehensive schools today.

The choice a specialist school makes for its specialism can also influence curriculum choice and direction at 14. Schools are being allowed to work to their strengths, which is a good thing, but does this not have the potential for creating further imbalance?

Can indeed all the subjects listed above be taught effectively now in one school? Is there a need for collaboration between schools and a sharing of specialisms and facilities?

What does the future hold for video conferencing courses and online learning in the 14-19 phase?

A skills based curriculum

One initiative which seems to have had more impact than any other in the last three years in our school has been the Key Stage 3 Strategy. As a pilot school the effect on

pupil progress of the three part lesson with its starters and plenaries has been quite dramatic. It has focused attention not only on what makes for a good lesson but on the different ways children think and learn. New strategies for learning are now continuously being sought and tested with considerable success, be it still within the confines of subject boundaries. It has encouraged teachers to share good practice and lesson plans particularly when combined with new classroom technology. Such practice can change the learning culture of a school and help turn it around. Indeed many schools are now exemplifying such progress and results, notably in more deprived areas. The 'It's cool to learn' culture is making a considerable difference in schools where teachers and pupils are working enthusiastically on new approaches to learning and involving ICT.

Specialist schools deserve credit here in providing the momentum, encouraging change and innovation, raising expectations and encouraging learning networks.

Following Key Stage 3 initiatives there is a strong case for continuing these strategies into the 14-19 phase, so concentrating on deeper and more meaningful learning experiences at the external examination level. There is possibly a consequence here in terms of reducing the time for absorbing content and knowledge, while increasing the time for thinking and reflection. (While the value of the CASE programme has been recognised by science teachers at Key Stage 3 because of the thinking skills encouraged, there is still concern expressed by these same teachers over the content the science curriculum has to cover at Key Stage 4. This appears somewhat contradictory.)

Is there is a message here for the examining boards who set the syllabuses of work and frame the assessments?

Some schools are now experimenting with 'learning to learn' lessons and reducing the weight of the taught subject curriculum. There seems sense in this. The idea, under Tomlinson, to reduce the range and number of assessments seems right. It could encourage schools to identify common skills which require developing rather than a plethora of knowledge which has to be covered and taught.

The idea of the extended study is a good one if it allows students to develop common skills of investigation and enquiry, including hypothesis testing and statistical analysis. For too long have different subjects duplicated these areas of study and overloaded the

Key Stage 4 curriculum for students as a result. On the other hand, it is not a good idea if it encourages whole sections of work to be lifted from the internet or for overly descriptive and long projects to be produced.

The vocational, or more aptly termed, 'applied' GCSE courses have the potential to be more relevant and meaningful to work-related learning as they evolve and develop. It is important to integrate work experience programmes within them and to give higher status and credibility to the resulting qualification.

It is important that these courses challenge students across the ability range and provide viable and recognised routes through to further, higher education and successful careers. Our school is presently trialling an option programme which expects all students at 14 to choose at least one applied GCSE. We will evaluate this with care, gauging student interest and response. ICT skills have an important part to play within these courses.

Finding the teachers to teach these courses as they expand into the post-16 phase is another issue. Some retraining and rethinking about subject allegiance and qualification is becoming a necessity as, so too, may be shared teaching with neighbouring schools and colleges.

One area still to examine is possibly the argument that some skills can only be learnt through the medium of specific subjects. Is mathematical enquiry, for example, very different to scientific enquiry? Do historians learn to analyse and reflect (think) in a different way to the English literature student or modern foreign linguist? The subject specialist may argue such a case. Does the conceptual learning within subjects contain its own disciplinary line of enquiry? And are these different disciplines good for us?

But here is the possible stumbling block to the academic 14-19 curriculum. We are not all academic high fliers! Some students find some subjects more difficult than others. Some subjects are extremely challenging to 14-19 year-olds as the concepts and problems advance into AS and A Levels. Physics and maths at A Level are clearly quite challenging and specialised subjects. The writing of a cogent, well-reasoned, argument in history at A Level takes a degree of maturity which not all students possess at the age of 16 or 17.

Indeed, a common problem identified by schools now is that transition between GCSEs and AS Levels, particularly connected with essay writing and the skill of articulating

explanations. There is a growing concern over the number of 16 year-olds staying on into the sixth form only to leave at 17 following demotivation due to poor AS results. The choice of relatively new A Level subjects such as psychology and sociology also fall into this bracket of low retention rates. Are we giving students the best service here by encouraging such a pathway?

The problem with the more traditional or 'academic' route through a comprehensive school to 19 is that it has the potential to fail quite a number of students along the way. Out of an average cohort of 240 in our school approximately 80 will stay on into the sixth form and, depending upon the strength and talents of the year group, only a small percentage will gain A Level grades of C and above. The majority, if not all, manage to get where they want to go in higher education but the point is that the numbers make up so small a proportion of the original cohort.

Our concern is clearly not only to help the able students achieve their potential but for **all** students within the cohort to find appropriate levels of success and achievement. If a wider 14-19 curriculum involving vocational courses, work-related skills, the Duke of Edinburgh Award Scheme, Pathfinder courses and young apprenticeship schemes etc help students to learn in more meaningful and purposeful ways at their level of understanding then it surely must be a good thing.

With the intention to increase the number of students entering higher education (to 50%?) university courses must also address the issue of the appropriate skill levels required for appropriate courses.

The grammar school system, built upon success at 11+ (which we must not forget still exists in many parts of the country), still influenced strongly comprehensive school styles through the 70s, 80s and 90s, whereby the only successful route to higher education was via good O Levels, GCSEs and A Level success. Setting and banding tended to identify the 'grammar school stream' within the comprehensive (if it had not already been creamed off elsewhere) with the consequence of low expectations for the rest.

Schools are still challenged with finding an appropriate curriculum for their total populations (their comprehensive intake).

While there is strong and encouraging evidence to suggest that standards are improving, displayed by the proportion of students now achieving 5 A*-C grades,

together with value added data on prior attainment, schools still have to address the kind of education they need to provide for **all** their students, including those with special educational needs. There will still be students who will have made considerable progress by achieving GCSE grades E to G. One could ask what is in it for them. Have they failed? The heavy emphasis given to the A*-C benchmark might suggest that they have unless value added tables are scrutinised with care.

It is interesting how many adults still talk about the stigma of failing the 11+. Many are indeed doubly proud of their later achievements in life. Colleges of further education will have many stories to tell about students they take on with poor self-esteem due to a failed route or experience through secondary school.

Values, attitudes, emotional and social intelligence

When asked about values in education, many headteachers would say, first and foremost, that they would wish their students to possess such qualities as honesty, courtesy, kindness, curiosity, integrity, humility, confidence and resilience. The terms 'mutual respect' and 'positive relationships' would loom large in any educational vision.

These values, therefore, must also guide the 14-19 curriculum agenda and experiences must be sought in schools, families and communities in order to provide our youngsters with opportunities to develop such qualities.

The term 'personalised learning' in this technological age does not just mean sitting in front of a computer all day long either at home or at school, and working independently, anywhere, anytime. I would rather interpret the term as a way of providing 'personal attention' to the learner, so allowing individual and appropriate educational pathways to be explored. The good school is one that is marked by the personal attention and care it gives to its stakeholders. Perhaps personalised learning is best looked at in the terms of 'one size no longer fits all' as quoted by David Miliband. While the laptop and online learning clearly has a very important place, we should be wary of creating socially isolated learners.

The challenge for schools, governments, Learning and Skills Councils, and Local Education Authorities is to create the means (timetable, staffing, facilities, college links, work placements, transport, etc.) for such tailored pathways to work effectively. This can only be achieved through successful

collaboration and partnership. It will not be achieved through competition or by one school succeeding at the expense of its neighbours.

When considering designing and building schools for the future the importance of 'sense of community' should not be lost. Within the school community itself the assembly hall is still an important meeting place, where achievements can be celebrated, concerts performed, laughter heard and emotions expressed. The involvement of the wider community and for pupils to have a sense of being part of a global community are also important elements of all phases of education, including 14-19.

So, where from here?

- With three further sessions through the year should we devote at least one to the question of the core curriculum? What do we consider to be the essential elements of the 14-19 phase in terms of subjects and skills? Is the present system too prescriptive or too ad hoc, too overcrowded, too limiting, etc? Are we providing a disservice to our students? If so, in what way? What are the good aspects about the 14-19 phase we should not lose? In what ways do examination boards hinder/restrict progress? Can we influence their direction?
- Can we learn from innovating schools, colleges and consortiums? What new processes and strategies towards learning are working well? Many specialist schools and colleges have success stories to tell. Networks of schools are sharing good practice across the country. Could students themselves provide some of this evidence? One point made recently has been that movement at the grass roots level is perhaps faster than at the government decision making level.
- Finally, although the Nuffield Review is independent from the Tomlinson recommendations should we not look more specifically at the latter, now it is in the public domain, in order to focus upon certain issues and consequences? What is the report saying exactly about vocational routes? The extended study, etc?

Practice in my own school could exemplify the following if considered to be useful:

- the impact of the KS3 strategy on learning and teaching;
- intervention strategies being used to improve learning and performance;

- the approach to vocational education and personalised learning 14-19;
- developments within the Mansfield consortium of schools in Nottinghamshire re 14-19 education, common timetables, common courses, collaborative approaches.

One final thought concerns the employer's view. What do they expect of an educated 19 year-old, or even university graduate, in terms of character, qualities and skills? Not all careers are so specialised in the skills or 'subject knowledge' they demand. They are looking for good presentation skills, listening, speaking and writing skills, ICT literacy, confidence and pro-activeness with ideas, good PR skills, emotional intelligence, flexibility and adaptability. Perhaps we should concentrate on servicing these needs first and foremost in our overcrowded 14-19 curriculum.

Additional point

One additional point I wish I had made to my original paper concerns the definition of the word 'vocational'.

It is possible to associate this word too closely to the 'world of work' when John Dewey interpreted it in the wider sense of 'learning through doing', 'learning through experience'.

In other words, Dewey believed greater understanding, meaning and relevance to learning came from applying concepts to the real world and to real life situations. Conceptual learning in the abstract was more difficult to grasp than in present day practical situations.

This idea has the consequence of looking at learning and the study of subjects not necessarily from a work experience context but from learning which can be applied to actual day to day situations. Perhaps the term 'experiential learning' is preferable to vocational studies and the notion of working from what is known to what is unknown.

One example which comes to mind concerns a colleague who was mystified why his 19 year-old daughter, about to start a university education, did not know where Blackpool was on the map of Great Britain. The familiar cries of 'What are children being taught in geography lessons today?' came through.

Interestingly, the geography teacher's response to this might well be to try to teach formally by a 'capes and bay' approach the place name map of Britain, followed up by an assessment.

But would, even then, the learner retain such knowledge? What holds the interest or relevance here for the learner? I personally have retained since the age of 14 the valuable knowledge that Wick and Thurso are two Scottish fishing ports on the northern most coastline of Scotland. But I have yet to use such knowledge to any advantage whatsoever.

I was all the more impressed, therefore, with an assignment in an assessment for leisure and tourism (applied GCSE) which challenged the students to plan, with the aid of the internet, three British tours for a Japanese party visiting Britain over a period of three weeks at high, medium and low cost levels. Where would they take them? Where would the tourists stay? How would they travel? Plan their itinerary. Perhaps, if indeed Blackpool was included in such a tour, the student would get to know and remember the resort's location in a more meaningful and relevant way.

People, of course, including children, also get to know and remember place names because of personal travel and experience.

The point being made here is that there is a need in 14-19 education for such problem solving activity and experiential learning to come to the fore at the expense of material which has to be absorbed and learnt for its own sake, as if in a vacuum.

The Schools Council GCE A Level study courses in geography which started to use actual real situational planning issues in their questions, asking learners to compile enquiry based reports with all the environmental, social and economic data at their finger tips, was an enlightening improvement on more traditional syllabuses.

Perhaps 'vocational study' should be used, therefore, in a wider context when looking at 14-19 educational change. It should not be separated from 'academic' learning in a simplistic way. The bigger picture or question to answer is how can educationists make the learning more effective, meaningful, relevant **and useful**, so that it aids understanding and growth. The notion of 'deep' learning is appropriate here.