

THE DISCUSSION :

'The test of a successful education is not the amount of knowledge that a pupil takes away from a school, but his appetite to know and his capacity to learn. If the school sends out children with the desire for knowledge and some idea of how to acquire and use it, it will have done its work. Too many leave school with the appetite killed and the mind loaded with undigested lumps of information.'

- The Future in Education, 1941 Sir Richard Livingstone

The new curriculum framework will need to be open-ended and multi-headed to allow for either traditional subject areas or for new subject bands – or both - as well as the increasingly diverse ways of delivering curriculum. Testing and exams of knowledge and skills will have their place in the future, but with new technologies available, notably the use of AI for assessment, resourcing and teaching, the emphasis will be on making best use of new technologies, creating ethical approaches to the idea of community, business and politics and the environment; and establishing new pathways at 6th form and tertiary level. There is an argument that we need to fix school structures first (one put forward again recently by Laura McInerney), and there is sense in that, but the two can, and probably should, go hand in hand in a review of the whole education paradigm.

Below is a discussion thread interspersed with commentary which covers a wide range of topical opinions from a number of leading educationists and a variety of different sources to try to tease out what should be considered in writing new curriculum. The quotations and extracts are loosely aligned in a narrative that drives the discussion.

'The word "curriculum" has no generally agreed meaning' Dylan Wiliam

- great place to start – looks like an open book then?

'Curriculum is a timetable; an aggregation of learning objectives (knowledge, skills and understanding); programme of planned activities'

- agreed, but already worried about the jargon creeping in. Perhaps we should produce the draft curriculum, then define it.

We can ask whether our curriculum should be a 'present' to our children in the form of nice package of prescribed knowledge and skills or merely the means for them to find them for themselves:

'We can't introduce children to the best that has been thought and said. We can, however, introduce them to the conversation in which they can join with others, living and dead, to decide what 'the best' might be. A good curriculum serves as an invitation into this conversation.' Martin Robinson

If we want a breakdown on how the curriculum could be discussed, how about Steve Chalk's four part definition:

Explicit Curriculum: Subjects that will be taught, the identified "mission" of the school and the knowledge and skills that the school expects successful students to acquire.

Implicit Curriculum: Lessons that arise from the culture of the school and the behaviour, attitudes and expectations that characterise their culture.

Null Curriculum: Topics or perspectives that are specifically excluded from the curriculum

Extra Curriculum: School-sponsored programmes that are intended to supplement the academic aspect of the school experience

Mind you we are starting with a national curriculum that is thirty years old and has been subject to endless tinkering and is now, for all intents and purposes, done for:

'So it is that, on its 30th birthday, the bloated corpse of the national curriculum came to be found at the bottom of a river of teacher sweat, questionable statistics, political counter-accusations, entrepreneurial snake oil and thinktank dark money. The river burst its banks and, weighted down by accountability, the curriculum was unable to swim to safety.'

Worse, as J L Dutaut warms to his task and is at pains to point out, what we have been left with is

'a Frankenstein curriculum of parts pilfered from high-performing systems according to Pisa (Programme for International Student Assessment) rankings, stapled together with teachers' self-purchased stationery supplies, and electrified by political rhetoric. A zombie curriculum. A monster.'

With that compelling denunciation of the National Curriculum, we can move on. The question now is what to put in its place. What are the rules for building a new curriculum – or is the argument that there should be no rules, no boundaries. But start replacing it we must, even if what is

produced is a loose confederation of ideas. As ever, it is important that reform starts from the bottom up and is not dictated from above. After all as Jill Berry points out

"The best qualification & curriculum reforms start at the level of those most directly affected: teachers in schools & colleges, working in tandem with exam boards; higher education and employers, shaping a vision for a new approach that is based on first-hand experience."

How to achieve this? There are plenty of suggestions out there to consider, some drawing on history

'We should start with a conversation, one which begins at the level of those most affected. Look at the really successful curriculum innovations and a pattern emerges: change begins from below, when a group coalesces around a new idea about the curriculum. This group will involve teachers, academics, employers; it will be open to input from students, too. Out of such a group grows a body of practitioners who share an educational vision. This group drives forward the innovation. The specification comes later, and later still, the qualification and assessment matrix. John Taylor

All sounds pretty straight forward, but perhaps our education vision needs to address the question of a whole new paradigm, not just innovations to the same curriculum we have been using for the past thirty years. Let's start looking at what we identify as needing change and some of the philosophical and practical reasons for it. Possibly, Helen Clark is getting close to what I believe should be a starting place:

'In designing a curriculum, start with human values + a common moral code. Stress the importance of ethics, empathy + dangers of self-interest. If we look at what's wrong with our society, it's in our failure to replace traditional codes of family / church with anything meaningful.'

And, of course

"When educating the minds of our youths, we must not forget to educate their hearts"
Dhali Lama

-so easily dismissed, but the moral vacuum and disintegration of communities and families lies at the heart of the unease in our society. If only we could instill the third world hunger for education into our satiated first world schools.

Then there is the wider question of what education should include at a time when teachers have become primary care givers out of class and schools have taken on more and more responsibility for feeding and providing all-day care for children. It is a problem not so apparent in other European countries, as Professor Geraint Johnes points out:

"Here in the UK, if any difference is to be made to school performance, it is clear that social policy rather than educational policy needs the most attention."

We have got to measure education by ALL its outcomes, not just by grades, as Akala points out when he states that

'24% of all people in the UK prisons were in care as children. 47% were expelled from schools'

These statistics reflect our education system as much as do examination grades with our schools are the frontline where such battles have to be fought and won. The American economist, Bryan Caplan goes one step further in his book 'The Case against Education', asking

' . . . why we need to stop wasting public funds on education. Despite being immensely popular--and immensely lucrative - education is grossly overrated. . . . The primary function of education is not to enhance students' skill but to certify their intelligence, work ethic, and conformity-in other words, to signal the qualities of a good employee.'

Surely there's more point to it than that – help! Perhaps an English educationalist can extol the real value of education?

"What is education for?" My honest answer: 'storage for children' with a follow up answer 'and while they are there we may as well give them a bunch of experiences that we hope will be helpful for them now and in the future'" Laura McInerney

Wow! Education is a time filler! But how do we ascertain what are the best experiences?

'Coherent curriculum defines "standards and curricula as coherent if they are articulated as a sequence of topics and performances that are logical and reflect the sequential or hierarchical nature of the content' Professor Bill Schmidt in *A Coherent Curriculum*, 2002

- I think I'm heading towards a largely incoherent model

'Curriculum matters for without common educational objectives, there is no measure of educational outcomes, no educational research, no pooling of resources to address provision at the systematic level.'

- sensible enough except I wonder if commonality is going to be one of the casualties of change? Thirty years on, are we going to just accept the national curriculum is immutable, too big to tangle with except in a piecemeal fashion. Not if JL Dutaut has anything to do with it:

*'Imagine the education system giving birth to fraternal twins. One we will name after their departed sibling: national curriculum. The other, we will name community curriculum. We will raise them both in a loving, caring environment, and give them both the same opportunity to flourish according to their own distinct personalities. And we will raise them with faith in each other, in the spirit of all "Great Debates" (and all great marriages) – preferring consensus over a sense of victory, legacy over immediacy, and empowerment over accountability. It's a beautiful dream, isn't it?
JL Dutaut*

The trouble with it – you've spotted it? - is that it's a dream. Dreams aren't much good where we are going. Education has to have relevance to children, but also to parents and communities and the idea of having a community curriculum may be the adoption of common values, aspirations and a sense of being on an educational journey together. At the same time we are beset with difficulties staffing our schools and are off exporting from countries with similar shortages and much greater need. But meanwhile we neither value our teacher properly, in status, support or in monetary terms, nor properly recognise the influence of a teacher. We should listen to Henry Adams who wrote

'A teacher affects eternity; he can never tell where his influence stops'

Or Terry Pratchett?

‘They looked like tinkers, but there wasn’t one amongst them who could mend a kettle. What they did was sell invisible things. And after they sold what they had, they still had it. They sold what everyone needed, but didn’t often want. They sold the key to the universe to people who didn’t know it was locked.’ Terry Patchett’s description of teachers

- but Terry, we’ve been told if we can’t measure it, it has no worth, that it has to be tangible. And how long will they allow us to peddle things they don’t want if they don’t understand their value? But I’m with you!

‘Someday, in the distant future, our grandchildren’s grandchildren will develop a new equivalent of our classrooms. They will spend many hours in front of boxes with fires glowing within. May they have the wisdom to know the difference between light and knowledge.’ Plato

-Prophetic – I recognise my apple mac as a box with a fire glowing within. Will it know the difference?

‘Our education system is cracked and broken. We need to let some light in’ (anon)

- who said this?

‘There is a crack in everything / that’s how the light gets in’ Leonard Cohen

-ah, the muse!

‘Education is not the filling of a pail, but the lighting of a fire’ W B Yeats (attrib)

-I bet Yeats wished he’d said it because it makes sense even if it has been hi-jacked by educationalists who do the opposite

‘Give us a light, buddy’ (anon)

-A bridge too far? Well, it’s clear that what we have isn’t working. On this subject, two of my former students wrote the following, describing the secondary school experience as a world removed from what they had experienced:

‘I have vivid memories of beginning secondary school; I was shocked at how my new peers did not seem to have the same independence as me, both inside and outside the classroom. Not only did I ask more questions than them, but if I were to respond to a teacher’s

request or statement asking “why?” I was perceived to be both troublesome and a disturbance to the class. This continued until the end of my time at secondary school.’

‘I did not get on with the British Education system. It’s focus on memorization, ticking boxes and ironing out children’s idiosyncracies has left me deeply frustrated and concerned. (A student / Cambridge)*

(nb this followed her primary years which she described as ‘the brightest example of how I believe learning should be. It was the happiest experience I had whilst in school, allowing me to develop both creatively and academically in a pressure-free environment.’

Pretty damning, albeit from a rather small sample. But it is clear that too much front-loading of information without space for discussion just doesn’t work anymore than does shutting out the light of enquiry and investigation.

Worse, there are long-term dangers in all of this that we often see in some very well-educated people whose learning has actually stunted them.

‘Your mind, my dear Mansfield,’ he told her once, ‘is uncluttered. There’s not the usual lumber – religious, political, social.’ They were having lunch together in a restaurant not far from the British Museum.

‘This is the nicest possible way of telling me I’m empty-headed.’

‘I would say unspoiled.’

‘An empty vessel into which you can pour’

‘No. A rational creature, to whom I can offer’

‘Well’ She smiled her gratitude for a compliment gracefully delivered. ‘I’m not sure it’s true, but if it is, it’s because I’m a citizen of nowhere. I learned very little in New Zealand; but because that’s where I began, what I’m taught here I don’t always accept or believe. Nothing ever seems gospel, you know?’

‘The social imprint is thin.’ His eyes were bright, eager. ‘People of my sort – Ottoline, Brett, Huxley – we have a lot to unlearn. Too much was laid on us too early. We grow up fettered.’

(Katherine Mansfield and Bertrand Russell in conversation from C K Stead’s novel, ‘Mansfield.’)

- My underlining. I firmly believe this, that you can learn too much and grow up fettered and lose the ability to think for yourself. It takes a writer of fiction to deliver the truth.

'What content we teach (& how we teach it) in forward-thinking schools is radically changing, but human kindness & empathy are subjects that will stand the test of time as we look to the curriculum of the future.' Tara Kinsey

-Agree with this, but hard to teach and harder to measure – this is why we need to teach morals and ethics (NB Get rid of measurement as the measure of everything) -

'How can we condone a system that focuses on only two types of intelligence and then tells 40% of our kids (mostly from disadvantaged backgrounds) that after eleven years of study that they are the ones that failed?' Angela Abraham

- un-condonable! A neologism delivered with force!

'The "model" of individual teachers doing a million different things all sub-optimally & with systemic inefficiency is a 19th century "cottage industry" approach to a mass product (school education). How many hours are wasted on unnecessary duplication of lessons, worksheets, etc.' Crispin Weston

- the role of teachers has changed, but in the wrong way, taking them away from children, instead of in the other direction. They need to get back to having more time with children and less time doing bookwork and administration

'The top three skills needed in 2020 are complex problem solving, critical thinking and creativity' Carl Robert TES IBCP in an article from the Education Policy Institute (EPI) 'Educating the Economic Future' The World Economic Forum

-And all should be an implicit (nb not explicit) part of any curriculum

'New technologies seem to be moving towards a smaller proportion of very well paid jobs, and a long tail of less well-paid and precarious jobs.'

- This is a societal problem, but one that has to be considered in any new curriculum

'Technology will provide the essential tools of the trade that will support teachers, allow them to manage logistical challenges of (inter alia) personalisation at scale & enhance their professional status.' Crispin Weston

- This I need to know more about. Clearly with quantum computers mechanical learning and AI will increase the pace of change.

“There will be as many changes between 2016 and 2022 due to exponential technology growth as between 1900 and 2000.” Peter Diamandis

-how education reacts to this (or chooses not to) is an issue in forward-planning

We don't live in the age of standardization, we live in the age of customization.”
Guatam Khetrapai

-and we have to counter this

Nor must we throw out the baby with the bath water – so much of what we do, in our schools and curriculum, is there because it works. Hard work and high (realistic) expectations should be encouraged.

‘328 studies over 50 years show that direct instruction (structured guidance for teachers, teaching discrete skills before application, daily checks on learning, regular testing for mastery) has consistent, large positive effects on student achievement’

- Dylan Wiliam quoting Jean Stockard, Timothy W. Wood, Cristy Coughlin et al *The Effectiveness of Direct Instruction Curricula: A Meta-Analysis of a Half Century of Research*

And

“...in 2018, there is still a fundamental duty to teach students content: concepts, facts and principles. Taught by teachers trained as experts in that content, with all the status and resources and professional development that we would demand in any other expert occupation.” Alan Finkel Australia's Chief Scientist

But we mustn't flog students whose lives are already overfilled. In this I would disagree with Barnaby lenon, Chairman of ISC who advised students studying for GCSE and A Levels to

“Plan to work seven hours a day most of the Easter break”.

That why we call it a break, right? Whatever we do, don't give students time to think or relax! And let's keep focus on the subjects that are going

to provide employment because that's what education is about – so they say.

"We don't read and write poetry because it's cute. We read and write poetry because we are members of the human race. And the human race is filled with passion. And medicine, law, business, engineering, these are noble pursuits and necessary to sustain life. But poetry, beauty, romance, love, these are what we stay alive for." John Keating (Robin Williams) "Dead Poets Society", 1989

-Twee, but a reminder of the importance of the humanities, of music and art that should sit at the heart of education. Yet beware the liberal progressive who has wrought such damage and still holds sway over large tracts of the UK education industry:

"The saddest thing about the progressive movement is that it hurts the very people it wants to help," Katharine Birbalsingh

But we should not be afraid of change – it just needs to be measured and pertinent. For we must always look forward:

'We're worried that many young learners are being educated for the past instead of the future. We must not risk them being failed by obsolete education systems, leaving them dependent and poor.'

Dr Mmantsetsa Marope, director of UNESCO's International Bureau of Education

One of the prompts from above – so we need to take it seriously!

'Timely and continuous learning will determine who wins and who loses from the 21st century's industrial revolution.'

Dr Mmantsetsa Marope

-Don't say we weren't warned!

'We must develop people who know how to learn. That's the most important competency, underpinning a person's ability and agility to adapt to fast changing contexts of the 21st century.' Dr Mmantsetsa Marope, director of UNESCO's International Bureau of Education

-Learning is no longer the preserve of schools and universities. It has to become a life-long habit and we have to teach that habit

'Change will be mainly fuelled by human innovation and ingenuity.' Dr Mmantsetsa Marope, director of UNESCO's International Bureau of Education

- is our system allowing for the identification and nurturing of innovation and ingenuity? Or does this happen outside of / despite the curriculum?

'Start designing your own education you can courses from the best universities in the world for free. Start educating yourself. Find your tribe. Deep immersion. Connect with people like us.' Guatam Khetrapai

- This is now; blended education is already making inroads into traditional schooling and changing the role and function of teachers.

'It is only when you have determined your objectives (curriculum) that one can start to establish what is the most effective means of achieving them (pedagogy).' Crispin Weston

- Sensible – we do need to know where we want to end up and prepare for a journey not some destination (to counter that A Levels, degree, now we've arrived! But where are we and why can't we even light a fire?)

'Maybe part of our formal education should be training in empathy. Imagine how different the world would be if, in fact, that were reading writing, arithmetic, empathy.' Neil deGrasse Tyson

- I think empathy, attitude, purpose, values should underpin any new curriculum, but should be implicit in good teaching, not bespoke

'We need a different kind of education, one that combines deep thinking (head); growth, character and dialogue (heart); and an ability to solve problems, generate ideas and engage in the world (hand). School should be, above all else, a place of learning in all its expansive complexity: learning how to think, learning how to live, learning how to create.' Peter Hyman School21 RSA

- and this was some years ago and still resonates. As a rule we should not jettison anything until we are sure we can improve on it and must hold on to aspects of 'traditional' teaching, especially process and procedure that are still relevant and work. For all the talk of new schools there are some who disagree:

"In all my meetings with people actually hiring graduates, no-one has ever said to me: "gosh, we don't have enough people who know how to collaborate".

No, what they say to me is: we don't have enough specialists in software engineering. We can't find graduates who are fluent in maths. We have meetings where three quarters of the people in the room can't critique a set of numbers without pulling out a calculator and slowing us down."

- Alan Finkel Australia's Chief Scientist

Of all the significant issues facing us all, the subject of sustainability of resources, species, habitats, is at the front of the queue for inclusion in a new curriculum. From the start of informal learning, we need to underpin our curriculum in line with Rockstrom's Planetary boundaries (and Kate Raworth's doughnut of social and planetary boundaries) the world having having moved on from Rostow's Stages of Economic Growth model used to describe and measure the stages of economic growth. No longer should we teach subjects like Economics and Geography in isolation without consideration of their global impact. So far, we are not doing very well:

"Environmental education has failed because it is not keeping pace with environmental degradation." Charles Saylan, Marine Conservationist

- an awareness of environmental and conservation is crucial from a very young age and must be central to any curriculum.

The question of ethics pervades every part of our life from when venture capitalists get going finding new projects to maximise profits for shareholders to politicians abusing expenses. After all,

'Selling our waste to Thailand and arms to the Middle east, investing as a country in dodgy political and environmental areas and promoting a programme of importing doctors, teachers and nurses, often from 3rd world countries that can ill-afford to lose them, is just not right.'

The most important messages we need to embed in the young is an understanding of what is ethical behaviour, of the concept of cause and consequence, of being part of a global community, of looking outwards

'Self-absorption kills empathy, let alone compassion. When we focus on ourselves, our world contracts as our problems & preoccupations loom large. But when we focus on

others, our world expands.'

Dr Michelle Borba

-completely agree. Children need encouragement, to be taught, to think out of themselves, less narcissistic and self-absorbed and develop the idea of community, charity etc. On that, I agree with Theodore Dalrymple's distinction between self-esteem which can lead to narcissism and self-respect.

The question of who owns your education is key. It certainly works better when the child is the primary stakeholder:

'Something really great about my upbringing was that my parents were very much of the attitude that you can learn anything better than anyone can teach it to you. In other words, any curriculum that you design is going to be ten times better than what someone will design for you. You don't have to do that rote, prescriptive thing.'

-Tara Westover, who never attended school until 17 years old now with a PhD from Cambridge

- I love the quote that you can learn anything better on your own than anyone can teach it to you (whether that is always true) It is at the heart of learning, the love of learning, the desire to learn.

Of course in changing the paradigm of education we need to look at how the workings of the adolescent brain and the changes that are happening and the way technology is changing social interaction

'Today's students are more social and like to learn in a more unstructured way'
Simon Noakes

At the same time we need to look at assessment critically and see how it impedes, as well as drives, learning

'Schools could have more opportunity to focus on useful assessment if there were fewer formal assessment points.' Daisy Christodoulou

Hear, hear to that, although there will still be too many for most. Of course, Artificial Intelligence might just deal to us all. Jess Staufenberg tells us that

'AI will soon beat pupils taught knowledge-based curriculum'

and Ruth Luckin, Professor of Learner-Centred Design at UCL warns proponents of a knowledge rich curriculum, (and there are plenty) that

'Pupils will be unable to compete with advanced artificial intelligence systems if they are taught a knowledge-based curriculum.'

While summing up the fuss about examinations with the categorical statement that

'AI will be the death of exams'

After all, despite being told that AI will never capture the child as well as our obsession with test data, we are already past that point:

A wide range of AI-driven teaching technologies are already in schools. These include various 'autonomous interactive robots' developed across East Asia. Elsewhere, millions of students now interact with 'pedagogical agents' – software designed to provide bespoke advice, support and guidance about an individual's learning. Also popular are 'recommender' platforms, intelligent tutoring systems and other AI-driven adaptive tutoring – all designed to provide students with personalised planning, tracking, feedback and 'nudges'. Capturing over one million data-points per user, vendors of the Knewton 'adaptive learning system' can claim to know more about any student's learning than their 'real-life' teacher ever could.

And a warning from Professor Neil Selwyn of Monash University that

Despite the obvious sense in preparing for an increasingly automated future, education continues to be one of the least future-focussed sectors there is

Clearly, we need to take apart everything we do and ask 'why' and accept that with new and more intrusive algorithms, assessment and measurement will change. In turn, education – schools – will need to become more flexible and work out ways to engage students rather than turning education into an endurance test with no worthwhile outcomes

“The problem with a one size fits all school model from a very early age it effectively tells people they are worthless if they cannot conform or do things in a very specific way.”

After all,

“Nobody doesn’t want to learn. They just don’t necessarily want to learn what you want to teach.” Will Shone

Debatable I can hear some teachers muttering, but an admirable sentiment. So where have we got to so far. What little nutmeg of inspiration, what polished crystal of enlightenment can sum up just what a new paradigm might represent and what its primary goal might be

‘Helping other people or a sense of purpose – those are the only things I have personally found that can give me any kind of sustenance’ Russell Brand to John Bishop

- yes, it takes Russell Brand to get to the very point of existence