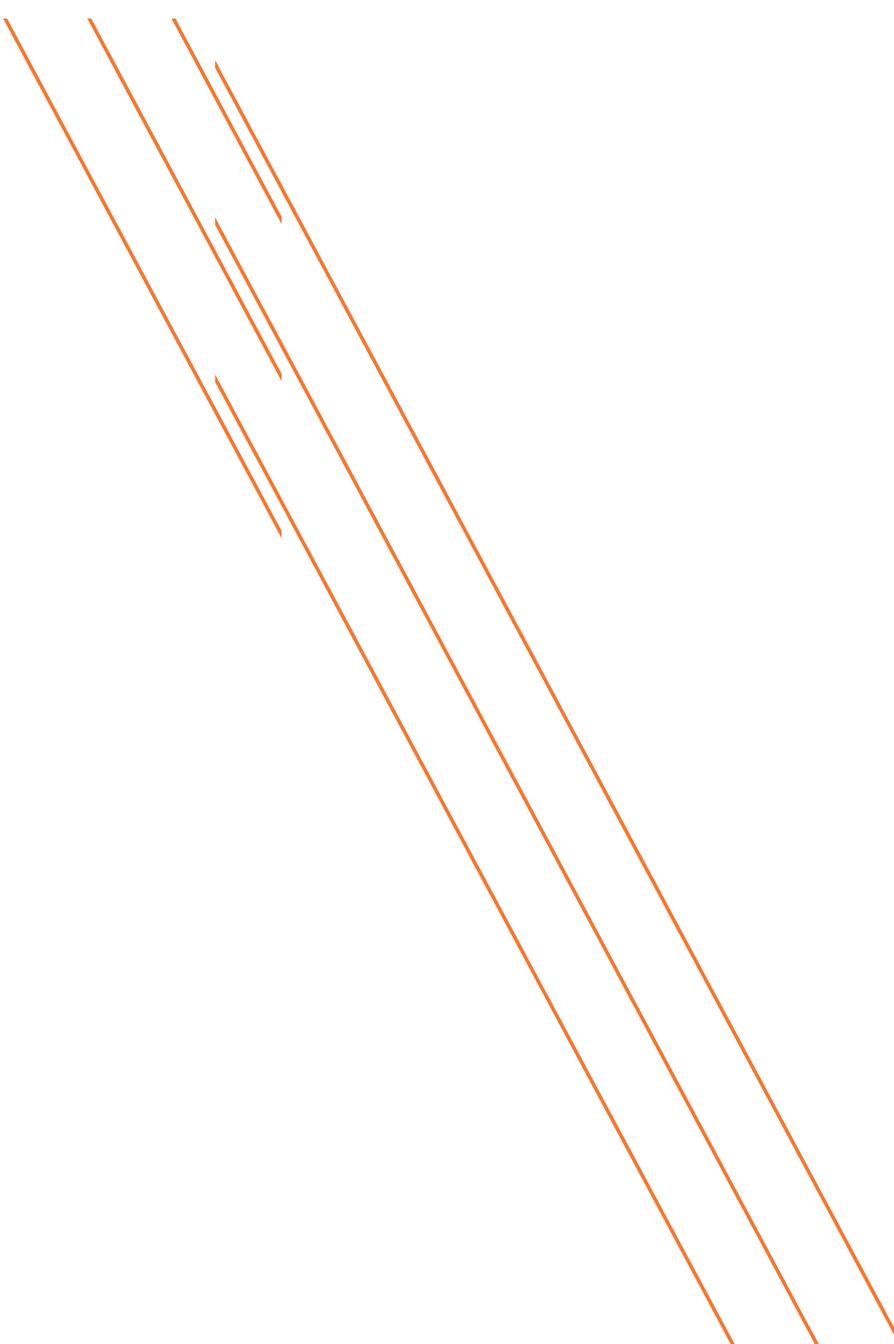


ESSAY

SUCCESS IN THE 21ST CENTURY

THE EDUCATION OF HEAD, HEART AND HAND



Peter Hyman

May 2017
© IPPR 2017

ABOUT IPPR

IPPR, the Institute for Public Policy Research, is the UK's leading progressive thinktank. We are an independent charitable organisation with more than 40 staff members, paid interns and visiting fellows. Our main office is in London, with IPPR North, IPPR's dedicated thinktank for the North of England, operating out of offices in Manchester and Newcastle, and IPPR Scotland, our dedicated thinktank for Scotland, based in Edinburgh.

Our purpose is to conduct and promote research into, and the education of the public in, the economic, social and political sciences, science and technology, the voluntary sector and social enterprise, public services, and industry and commerce.

IPPR

4th Floor

14 Buckingham Street

London WC2N 6DF

T: +44 (0)20 7470 6100

E: info@ippr.org

www.ippr.org

Registered charity no: 800065 (England and Wales), SC046557 (Scotland).

This paper was first published in May 2017. © 2017

The contents and opinions in this paper are the author's only.

NEW IDEAS
for CHANGE

ABOUT THE AUTHOR

Peter Hyman is headteacher and co-founder of School 21.

ABOUT THIS ESSAY

This essay will form part of an edited collection on the future of education, to be published by IPPR in late 2017.

Download

This document is available to download as a free PDF and in other formats at:

<http://www.ippr.org/publications/the-future-of-education>

Citation

If you are using this document in your own writing, our preferred citation is:

Hyman P (2017) 'Success in the 21st century: The education of head, heart and hand', IPPR.

<http://www.ippr.org/publications/the-future-of-education>

Permission to share

This document is published under a creative commons licence:

Attribution-NonCommercial-NoDerivs 2.0 UK

<http://creativecommons.org/licenses/by-nc-nd/2.0/uk/>

For commercial use, please contact info@ippr.org



SUCCESS IN THE 21ST CENTURY

THE EDUCATION OF HEAD, HEART AND HAND

THE WORLD OF OUR CHILDREN

- Politicians tap into disaffection with globalisation through increasingly extreme ‘post-truth’ politics. The internet is filled with reservoirs of eye-opening information but also with news that could be real or fake.
- *The 100-Year Life*, a new study by Lynda Gratton and Andrew Scott (2016), makes clear that, with people living so much longer, an education weighted to the start of life will not be sufficient: it will need to be topped up at regular intervals, changing the way we see learning.
- Human ingenuity and destruction screams at us from the media: ‘World’s first baby born with three parents’; ‘Most advanced AI robot admits it wants to destroy humans’; ‘230 million migrants worldwide’; ‘Disasters linked to climate change increase risk of war’.

We are living in an age of extraordinary new opportunities, an increasing number of perils, a bewildering amount of information and a series of troubling moral dilemmas.

While there is huge uncertainty about the future, the sorts of skills and attributes that are going to be in ever-greater demand are becoming clearer: communication and interpersonal skills, problem-solving and idea generation, collaboration and networking, analysis and synthesis, creativity and agility – all underpinned by the need for a strong moral compass in situations of greater complexity and ambiguity. It is also clear that a foundation of high levels of literacy and numeracy are essential, and expertise in science, maths, computing and design will be highly prized.

So how are education systems around the world preparing young people for this complex world? There are at least six different approaches driven by context and ideology.

1. **The challenge of universal education.** It is worth remembering that there are many parts of the globe where training enough teachers, building enough classrooms and getting enough children to attend regularly are Herculean tasks.
2. **Getting the basics right.** There are plenty of parts of the world, including the inner cities of developed countries, where a ‘behaviour and basics’ model is seen as the best solution to these fresh demands. This deficit model, often resulting in boot-camp style schools, is about teaching children strict boundaries and the benefits of hard work. The basics of literacy and numeracy fill most of the curriculum. Charter schools in the US have led the way and have often responded to generations of underachievement in an area. Regimentation works for a time. But when students have to operate in a new environment – in a workplace or college where they have

to use their initiative – they can't cope because they are so used to being told what to do.

3. **A broad, academic education.** In most developed countries there are hundreds of schools working hard to provide an education that is 'broad and balanced', touching on around 10–12 subjects that are all given small amounts of time in a weekly curriculum. A bit of geography is followed by a bit of science followed by a bit of maths. At these schools the academic is what is assessed and, ultimately, where the emphasis goes. As soon as high-stakes tests loom, the curriculum shrinks and the exam factory kicks in.
4. **Specialism.** The response of some schools is to focus on one aspect of the growing challenge and do it really well. There are excellent selective 'micro-schools' in the US and elsewhere for coding or design or science. Some schools in the Middle East are advocating a tri-lingual education: English, Arabic and coding. Specialism is becoming very attractive to those who know what they really want to do later in life.
5. **Real-world learning.** A number of schools in Canada, the US, Australia, Brazil, Denmark and Spain are making learning more 'real' by connecting with the outside world and giving students high quality work placements. Schools like High Tech High, New Tech Network, and Big Picture Schools in the US are all successful examples. By lifting the ceiling on what can be achieved, and giving students extended periods of time freed from a rigid timetable, students are producing work of real value while at school.
6. **The search for creativity in the Far East.** The systems that come top of the Programme for International Student Assessment (Pisa) tables (and who we seem to want to emulate) are in fact striving for creativity. At a recent conference in London of Asian countries, the government representatives from China and Singapore were both looking at ways they can inject creativity, agility and curiosity into systems they realise are effective on one level – powered by the work ethic so deeply ingrained in their cultures – but are sorely lacking if they are to be world leading economies in the 21st century.

SO, WHAT IS THE RESPONSE IN THE UK TO THESE SWIRLING FORCES?

Increased diversity, while not without its problems, has produced the potential (if not always the reality) for innovation, with a growing variety of specialist schools in particular.

However, the predominant feature of the UK system is that it is too rigid. We seem to believe as a nation that more exams with even higher stakes is the route to a better education system. Of course, it is merely the route to getting better at taking exams. All incentives, time and energy are skewed into playing the exam game. Recent changes have meant, in some cases, double the amount of content to get through in the same amount of time. The result is that there is only surface teaching, rather than in-depth wrestling with key ideas. Many exams, like the new English GCSE, now require the memorisation of large passages of text – memory skills being prioritised over analytical or creative skills. The new accountability measures mean that the curriculum is stuffed full of exam subjects with no room for non-examined parts of the curriculum like

music, art and drama. Ofsted, once useful in lifting the floor on school performance, is now the most overbearing education inspectorate in the world and is a constraining force on innovation.

In short, we have a one-dimensional education system in a multi-dimensional world.

THE EDUCATION OF HEAD, HEART AND HAND

The 21st century demands so much more in terms of agile thinking than the old tramlines of education, which will leave young people floundering.

We need a different course – an education for head, heart and hand.

An academic education (head) that gives people in-depth knowledge of key concepts and ways of thinking in science, maths and design, as well as history and culture. This knowledge should be empowering knowledge, knowledge that draws on ‘the best that has been thought and said’ from the past, as the cultural critic Matthew Arnold advocated, but importantly it should be shaped and applied to the needs of the present and future.

A character education (heart) that provides the experiences and situations from which young people can develop a set of ethical underpinnings, well-honed character traits of resilience, kindness and tolerance, and a subtle, open mind.

A can-do education (hand) that nurtures creativity and problem-solving, that gives young people the chance to respond to client briefs, to understand design thinking, to apply knowledge and conceptual understanding to new situations – to be able to make and do and produce work through craftsmanship that is of genuine value beyond the classroom.

To achieve this multi-dimensional education will require fundamental changes in the way schools are run. A revolution in curriculum planning, timetabling, the role of the teacher and, perhaps most of all, our attitude to young people.

These are some of the design principles, many of which we have begun to follow at School 21, a new school for students aged 4–18 in Stratford, East London, one of the poorest areas of the country.

THERE IS AN UNSHAKEABLE BELIEF THAT STUDENTS ARE CAPABLE OF PRODUCING WORK OF REAL VALUE WHILE AT SCHOOL

At School 21 we believe in young people. We do not see them as thugs to be civilised. We believe that respect, rather than compliance, is the glue that builds a strong learning community where young people can grow, explore, make mistakes and get stronger. Schools have to once more become places of joy and curiosity and wonder and possibility. Yes, we need routines and boundaries and clear expectations. But they must be for a bigger purpose: to liberate the potential of young people. In other words, school is not simply a grinding preparation for what comes later in life.

We believe that ‘today matters’: that each day at school pupils can do extraordinary things; that they don’t have to wait until later in life. We prize the idea of craftsmanship. You will see a child in reception doing a portrait of a king, starting with a rudimentary picture, often something very basic, and then through critique and multiple drafts producing a portrait that is stunningly good. Much of the work pupils do is planned to support a real purpose beyond the classroom and beyond the school: year 9 maths students using their maths knowledge to campaign to stop a concrete factory being located on the Olympics Games site; year 7 pupils with low literacy levels learning to write more effectively in a science project that provided fact-files and strategies for local residents to save the habitats of local wildlife.

THE CURRICULUM SHOULD DEVELOP A RICH BLEND OF KNOWLEDGE, SKILLS AND ATTRIBUTES

Variety, depth, scholarship and real-world learning are all important components of a 21st century education that balances head, heart and hand. There is a value in short mastery lessons on grammar. A value, too, in the scholarship of studying Shakespeare, Chaucer or medieval England in depth – not for their relevance but for their own sake. But there is also a growing case for connecting learning to the real world. Giving students real experiences and placements that develop the six attributes that, at School 21, we want every young person to have developed by the time they leave us: eloquence, grit, spark, professionalism, expertise, craftsmanship.

SPEAKING SHOULD BE GIVEN THE SAME STATUS AS READING AND WRITING

Pupils should develop the confidence and tools to articulate their ideas and critique others. We have worked closely with Cambridge University on a framework for oracy that involves the development of our strands: **cognitive** (being able to make an argument); **linguistic** (the ability to use language and idiom); **social/emotional** (an ability to listen and to read an audience); and **physical** (presence and body language). From age four upwards, we design the school to maximise opportunities for talk in a range of settings. Our assemblies are all in the round, and based on discussing and responding to key topics. We are developing ‘dialogic classrooms’ in which ‘rich talk’ aids thinking and understanding. We are giving pupils the chance to perform speeches, make presentations to expert audiences, act as tour guides, and even lead parents’ evenings, so they are not sitting passively but instead present their term’s work for critique. In all these ways students become more confident, reflective and dynamic – ready to make a difference to the world.

SCHOOLS SHOULD BUILD THE CHARACTER AND WELLBEING OF CHILDREN

At School 21 we believe in developing a strong sense of wellbeing, an inner strength and a self-control, the ability to bounce back from setbacks and transcend often fragile and complicated lives. We do this through coaching, through studying rich literature and through giving pupils a range of experiences that help shape their characters and personalities.

For example, at School 21 year eight pupils spent an entire term doing a science and drama project on genetics. This topic allowed pupils to go deeper and learn scientific knowledge about genetics but also understand and debate thorny ethical issues. By interviewing scientists and people with genetic disorders, they built up a picture, which they then turned into a verbatim play with the title: *Is it ever right to play God?* Curiosity, not compliance.

THE ASSESSMENT REGIME SHOULD REFLECT THE GROWTH OF THE WHOLE CHILD

I haven't found a single person in education who defends an exam system that tests so narrow a set of skills. It is not right or fair or useful to judge a young person after 14 years of education on the basis of two-hour written exams. Employers are unsurprisingly beginning to discount these exams because they don't measure the things they want measured, such as problem-solving, communication skills, and agility of mind. We can do better. Drawing on the best assessments for architecture, music and languages, teachers in many countries are thinking of ways in which we can assess three things:

- high-level competence in the basics (literacy and numeracy)
- high-level knowledge acquisition and application in key subject disciplines such as science
- a portfolio of work assessed on a range of skills and attributes, from oracy to problem solving to 'grit'.

Like driving a car, pupils should take these exams when they are ready, not all in one go. Lower stakes and broader criteria for success gives a more rounded picture of achievement.

A NEW VISION OF A 21ST CENTURY TEACHER

None of the above is possible unless we think again about what it is to be a teacher in the 21st century. A head, heart and hand education requires a different kind of teacher. Instead of teachers being increasingly reduced to workers on the production line of the exam factory, we need a vision of teaching as the intellectual, layered, complex and varied profession that we know it can and should be.

We don't ask surgeons to carry out exactly the same operation on every patient, even if the diagnosis is different. We don't ask hairdressers to perform the same haircut on everyone's head. But in the current debate, some are urging us to teach in the same way, no matter the subject matter, situation or group of children. This is the fastest way to de-skill a profession. The key attribute for a teacher is repertoire: to have a toolkit of approaches, from lectures to Harkness discussion around an oval table, from philosophy for children (P4C) sessions in the round to forensic grammar instruction.

Teachers are leaving the profession in droves, their creativity having been sapped, their professionalism questioned, with little time and space to research, collaborate and delve deeper into their practice. We need to create the structures for collaboration and reflection, where teachers grow because of the constant, supportive feedback on their practice from their peers.

In his book *Homo Deus: A brief history of tomorrow* (2015), Yuval Noah Harari describes a fascinating, chilling, account of a 21st century in which artificial intelligence may produce inorganic beings more powerful than humans, and where our ability to manipulate genes will transform our existence. This is a world that requires generations of young people to have a strong ethical grounding, be able to engage, analyse, empathise, and evaluate these developments. It calls for an education system that requires both more and different skills from the educator; in which schools are set up to be centres of learning not churning, and crippling accountability becomes lighter and smarter; and that lifts the ceiling on what young people can achieve. Only then will the young people of today be prepared for the uncertainties of tomorrow.

REFERENCES

- Gratton L and Scott A (2016) *The 100-Year Life: Living and working in an age of longevity*, Bloomsbury
- Harari Y N (2015) *Homo Deus: A brief history of tomorrow*, Harvill Secker