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The arts and humanities and the 'English Baccalaureate': STEAM not STEM

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There is something about a change of UK government that often seems to trigger a bout of reforming zeal on the part of new ministers to effect perceived 'improvements' in the English education system. Modification - radical or otherwise - seems to be endemic, perhaps because education always has been (and probably will continue to be) a contested concept. At present (2011), there are new initiatives to effect changes across all formal education sectors from early childhood through to higher education. Among these are two that have a particular impact on my own professional life in the worlds of music education and teacher education. namely the review of the National Curriculum (NC) and the introduction of a so-called 'English Baccalaureate'.

The first of these initiatives embraces a consultation earlier this year into a proposed revision of the NC for schools in England. The Department for Education (DfE; the rebadged education ministry, a change designed to signal that a new political team had taken over in 2010) invited views on the NC and, in particular, the nature of a 'slimmed down' NC content.

The remit for the review makes clear that English, mathematics, science and physical education will remain subjects within the National Curriculum at all four key stages in future... For all other subjects that are currently part of the National Curriculum – art and design, citizenship, design and technology, geography, history, information and communication technology (ICT), modern foreign languages and music - the review will consider whether or not they should remain National Curriculum subjects and if so at which key stages. (DfE, 2011 'National Curriculum Review – Call for Evidence Consultation Response Form': 10)

The implication is that the Education Reform Act's (1988) original conceptualisation of English school subjects into 'core' and – by implication – 'non-core' is now firmly embedded into the political consciousness. A

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few subject areas are seen as nonnegotiable in terms of their statutory inclusion, while a specific case needs to be made concerning the inclusion of any others. Nevertheless, such curricular bipolarity is in a context where two other recent independent reviews of the curriculum for Primaryaged children – The Cambridge Primary Review (Alexander 2009, 2010) and the Independent Review of the Primary Curriculum (Rose 2009) – argue for a more inclusive conceptualisation for what counts as 'core' knowledge.

For Rose (2009: 9), for example, 'the new curriculum must be underpinned by an understanding of the distinct but interlocking ways in which children learn and develop - physically, intellectually, emotionally, socially, culturally, morally and spiritually between the ages of 5 and 11'. In relation to selective content within the curriculum, 'subjects are essential but not sufficient' (p. 14), a point echoed in the Interim Report of the Cambridge Review (2009: 25): 'Subjects offer one way, though again not the only way, of translating what is to be learned and taught into a curriculum which is manageable on a day-to-day basis.' Both reviews offer an inclusive emphasis on culture and community as part of any systemised, school-based programme for the education of children.

Nevertheless, there has continued to be huge political pressure over the past decade to emphasise selective components of the school curriculum, in particular related to science, technology, engineering and mathematics (commonly abbreviated as STEM subjects). For example, the National STEM Centre's website argues that 'STEM subjects are integral to the UK's success' (http:// www.nationalstemcentre. org.uk/stemprogramme/what-is-stem retrieved 9 August 2011). A national programme of activities is coordinated from the National STEM Centre, based at the University of York, including support for teachers' professional development, access to resource materials, curriculum development and advocacy, as well as providing a forum to bring together business. industry, charities and professional bodies that share the centre's aims. The National Centre for Excellence in the Teaching of Mathematics (NCETM) has a similar portfolio and distinctive mission. as do the national network of Science Learning Centres. In contrast, subjects in the arts and humanities do not have such high-profile national support, although this does sometimes occur overseas, such as with the National Centre for History Education in Australia. While the arts and humanities have to rely on their subject associations to promote their distinctive educational agendas, these areas of knowledge have not been accorded the

same kind of official recognition, not even in English, despite a previous Ofsted HMCI, David Bell, calling in 2005 for such a centre to be set up to counterbalance the existing centres for mathematics and science.

Yet despite this apparent privileging of certain types of knowledge within the English educational system for schools, the Royal Society published an overview in February 2011 of implications for education and lifelong learning from the emerging discipline of neuroscience. The report's underlying moral stance was encapsulated in its opening sentences: 'Education is the wellspring of our health, wealth and happiness. It allows human beings to transcend the physical limits of biological evolution' (2011:11). Education is not seen as merely utilitarian, but as an opportunity to enrich and maximise our individual and collective human potential in all its diverse forms.

Such a value position would have been recognised and celebrated at the end of the sixth century in England when St Augustine established a foundation in Canterbury for the education of young male novices aged seven years and upwards to ensure a supply of new clergy and monks as part of his mission to bring Christianity from mainland Europe. From that moment to the present day, notwithstanding periods of political instability, war and economic crisis, music, the visual arts and religious education have been part of the education of children and young people in our country. The persistence of these areas of knowledge today is a testament to our ongoing recognition that the arts and humanities are fundamental to human expression, to what it means to be human, to understand ourselves and others.

Notwithstanding the political imperative for STEM education and a NC emphasis on a 'core curriculum' since 1988, it still came as a surprise to discover that a new bundling (bungling?) of academic subjects into an 'English Baccalaureate' should omit many of the subjects that history (a subject included in the 'English Baccalaureate') suggests have been part of the fabric of our formal educational system for fifteen hundred years. Indeed, of the 4.9 million GCSE qualifications passed last summer (2010), 1.4 million were in subjects not represented in an 'English Baccalaureate', with its formal omission of, for example, music, the visual arts and design-related subjects. This new DfE 'English Baccalaureate' policy announced in November 2010 suggested an instant rethinking of our educational history to enact and reinforce a two-tier hierarchy of knowledge where certain subjects (English, mathematics, history or geography, the sciences and a language) are regarded as part of 'a properly rounded academic education' from January 2011, while others are more marginal and somehow less 'core', less important. Whether intended or not, early reports suggest that the consequences of this first version of an 'English Baccalaureate' are that schools across the country are already taking decisions, based on their perceptions of the way that the Government will rank their academic profiles, to remove (or severely limit) the arts and (several) humanities subjects from GCSE subject choices from September 2011. The Government's underlying message to schools is that only some areas of knowledge have value in contemporary UK society.

This is in a context where: (i) evidence published by the DCMS (2010) suggests that the creative industries contribute almost £60 billion to the economy each year; (ii) other countries are seeking to extend and strengthen their inclusion of the arts in education because of their intrinsic and extrinsic values (eg China, Brazil, Costa Rica, Italy, Australia, South Africa, Singapore); (iii) empirical research evidence suggests that engaging in musical performance can promote children and young people's social inclusion, while improving their physical health and psychological wellbeing; (iv) Ofsted (2010) reports that adolescents are more likely to

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demonstrate negative attitudes towards cultural diversity in our schools where religious education is inadequate; and (v) neuroscientific research demonstrates that a core design feature of our multiple intelligences is our ability to make sense of the world through the processing of visual and sonic, as well as linguistic, symbols. It should be no surprise, therefore, that the editors of Scientific American pronounced in a recent editorial (November 2010) that 'music is not just an "extra"', but 'produces profound and lasting changes in the brain' that 'enhance the general ability to learn'.

In a similar vein, Lord Puttnam wrote to the Secretary of State for Education, Michael Gove, in March 2011 on behalf of the Cultural Learning Alliance, originally formed in 2009, to remind him of their work in developing a national strategy 'to ensure that all children and young people have meaningful access to culture', including learning through and about culture to inspire civic engagement and to help neighbourhoods to make positive changes through collective ownership of culture. At a time when the news media are dominated by images of inner city areas on fire (August 2011) and broadcasters talk about disaffection and disengagement among particular groups of young people, we need to remember that education in the arts and humanities embraces values, tastes, culture, ethics, collaboration, partnerships, aesthetics and self-expression, while fostering critical thinking, perceptual and cognitive abilities, creativity and diverse forms of literacy. An 'English Baccalaureate' conceptualisation that ignores such curricular qualities flies in the face of history and does our younger generations a disservice. Indeed, an emphasis on STEM education is unlikely to be the solution to our economic and civic regeneration if this means that the arts are neglected. As a minimum, we need to insert the arts into STEM (= STEAM) if we are to ensure that our school curricula are best matched for the realisation of the multifaceted potential of all our children and young people.

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Over the past decade, the general trends outlined in the 2011 text have continued. Politicians tinkered again with the content of the NC in 2005 - the fifth iteration since its inception in 1989. In addition, schools are now measured on how many Secondary school pupils take the EBacc, and on the grades that they achieve (DFE, 2019). The EBacc accounted for 38.4% of the examination entry at the end of Key Stage 4 in 2018 (DFE, 2020), a proportion that rose to 40% in 2019 (DFE, 2021). The ambition is 90% by 2025 (DFE, 2019). Consequently, far from the Government recognising the value of the arts, these are still absent in the EBacc configuration, with examination entries for many arts subjects declining markedly at GCSE and A level in recent years (Johnes, 2017; Thomson, 2019).

Meanwhile, paradoxically, international multi-disciplinary recognition continues to grow concerning the value of the arts in contributing to other areas of human intellectual, social and emotional development (cf Guhn et al, 2019; Welch et al, 2020; Williams et al, 2015). Furthermore, engaging in the arts can make a positive difference to individual and collective health across the lifespan, from early childhood through to senescence (Fancourt & Finn, 2019; MacDonald et al, 2013). As an example,

in our contemporary world where mental health and emotional well-being are of a national and global concern (e.g., BERA, 2021; The Prince's Trust, 2021), successful engagement in the arts is seen offering particular benefits to mental health (Camlin et al, 2020; McCrary et al, 2021), especially (but not only) during the current pandemic (Granot et al, 2021). Lastly, from an economic perspective, 'the arts and culture industry (including both market and non-market elements) supported £48bn in turnover, £23bn in GVA [Gross Value Added], 363,713 jobs and £13.4bn in employee compensation in 2016' (Cebr, 2019; 8).

'Although we may view adult artists as being particularly creative and recreative, the evidence from our observations of young children suggests that we are all born with creativity as a core feature of our design, of how we deal with and make sense of the world. It is a weakness of many of our education systems that this basic creative propensity is not nurtured and sustained through childhood into adolescence and beyond for everyone, but becomes filtered and badged as a minority characteristic, viewing artistic behaviour as special, or as a human pyramid of excellence in which the many look up to the few.' (Welch, 2021: 247).

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