Loughborough University

This item was submitted to Loughborough's Institutional Repository (https://dspace.lboro.ac.uk/) by the author and is made available under the following Creative Commons Licence conditions.

For the full text of this licence, please go to:
http://creativecommons.org/licenses/by-nc-nd/2.5/

Time to Move On?
Dr Eddie Norman, Loughborough University, UK

Designing design curricula is a wicked problem, just like any other design problem. Curricula are created to resolve the tensions and meet the aspirations of their time, but they cannot last forever. As the years go by, some of the concerns and issues that once seemed central lose some of their priority and other matters press. There can be no doubt, that current design and technology curricula are going to come under increasing pressure from the requirements of sustainability in a general sense – environmental, economic, and social dilemmas – and in the particular economic drive for a knowledge-based economy. This issue is essentially focussed on these pressures.

It is not generally a good idea to give away the end of a story, as it can discourage readers, but on this occasion it is intended to have the opposite effect. DATA recently published *Designerly Activity and Higher Degrees* by Professor Bruce Archer as part of its programme for supporting research by new lecturers on initial teacher education (ITE) programmes in design and technology. The second publication in this series of three, *Design and Democracy: speculations on the radical potential of design, design practice and design education* by Professor Ken Baynes, has now also been published. Like Bruce Archer, Ken Baynes was head of the Design Education Unit at the Royal College of Art. It was interesting to hear James Dyson in a speech at the recent DATA Awards drawing attention to this Design Education Unit's work in the 1970s and the key role it played in influencing the emergence of current thinking in relation to design and technology education. This editorial begins by quoting extensively from Ken Baynes's reflections on Design and Democracy. My selections are from the concluding pages, where these speculations are indicating aspects of the important future research agenda.

The role of school education: contrasting directions
School education in design is pulled in two strongly contrasting directions. Society requires it to achieve very different goals:

1 The preliminary specialist education of those who will become future designers – engineers, planners, architects, industrial and graphic designers, fashion designers and others. The professions demand that good quality young people are channelled into their fields of practice. There is in fact a marked element of competitiveness between the different areas of design. Each professional group lays claim to the high ground of national importance, demanding that resources are made available and that the curriculum responds to their particular sectional interests.

2 The general education of children and young people in the design area – including skills in understanding design, using designerly methods in the workplace and for personal satisfaction, and taking part in design decision-making as a consumer and citizen. Here again the professions take a view. Each profession claims that it is important for the young person to 'appreciate' the importance of their particular role. The state demands 'good citizens', pressure groups require children to become 'knowledgeable consumers'.

Conservative pressures on the curriculum
The effect of these pressures on the school curriculum has been very negative. They have tended to cancel one another out and in an apparently over-crowded school day have produced stalemate. It is ironic that the sum total of pressures for change has been conservative…

Learning through doing
Design education sought to identify the central core of design activity and to educate children by encouraging them to engage directly in these core activities. The move was a logical part of the wider interest in 'learning through doing' that characterised much educational thinking in the three decades after 1945. It was a radical approach because it assumed that the children would be engaged in steering their own education and that, as adults, they would be actively

Time to Move On?

involved in shaping the future of material culture through personal decision-making and citizenship.

It was thought, for example, that children should choose their own design projects and that they could appreciate the idea that a design has to serve human needs and improve a situation. Children were encouraged to offer a critique of existing products and places and to make proposals for improvement. They were expected to discover that people have conflicting views and requirements, that cost and value are important factors and may be in conflict, and that tools, materials and technology are the essential resources of design change and innovation. Most importantly, they were introduced to their own cognitive abilities to imagine, model and develop ideas for the future.

Children involved in the design of their own schools
It was unthinkable that children being educated in this way should not have at least some influence on the design and organisation of their own schools. Later they would demand a say in planning and other social design decisions. As consumers, they would use their buying power to reward good design and punish the manufacturers of shoddy and environmentally damaging goods. They would be well-educated in preparation for participation.

The radical vision has been lost
As things have turned out, this radical vision of design education has been lost. Current practice in schools is dominated by the National Curriculum where 'design' has largely vanished from Art and Design and where Design and Technology has become formulaic and normative. The pendulum has swung away from understanding and encouraging fundamental, reiterative processes – imagining, modelling, making – to teaching specific, often isolated, skills. Children gain more knowledge of contemporary material culture from the

media and shopping than they do from school and teaching. The result is that 'school-learning' is divorced from 'street-learning' while both school learning and street learning are steeped in the values of commodification and the consumer society.
                                        (Baynes, 2005: 55-56)

Ken Baynes's analysis of the environmental, economic and social pressures on current democracies leads to the seemingly inevitable conclusion that it is time for design and technology curricula to 'move on'. The quotation attributed to Albert Einstein that "You can't solve problems with the same thinking that created them" expresses the need for design and technology not to be formulaic. The next generation must be encouraged to think 'out of the box' because creating the material culture in the future needs to be approached differently.

Emergence of the 'consumer/designer'
Throughout this agenda what emerges is in fact a move away from the idea of the passive consumer. The new model is something far closer to what Morris and Lethaby had in mind but reconceptualised for the 21st Century. What we have is the consumer/designer, responsible for the design of his or her own lifestyle (and that of society) and aware of the wider implications of taking these decisions. This is truly radical and in tune with the profoundest traditions of radicalism, left and right.

For professional designers, such a development should be welcome. Here would be the emergence of the understanding and knowledgeable public that has been sought since industrialisation. However, the change might also be far-reaching and painful. The design professions would have to be prepared to give up something of their exclusivity and to share knowledge with people in general. History teaches that such broadening of access has usually been resisted.

Time to Move On?

And for education? It seems that education has an indispensable role to play. It is up to teachers to take a lead in preparing the consumer/designer citizens of the future. But again, they must be prepared for radical changes in their own area. Children and young people will need to participate more fully in the consumer/designer decisions about their own schools. Schools will need to become more environmentally benign places, representing in practice the values that they teach in theory. Educationalists will need to be more aware both of the extraordinary educational potential of the media and its powerful voice in disseminating the values of consumerism to the young.

(Baynes, 2005: 61)

Design and Democracy by Professor Ken Baynes is available to order through the DATA website.

The pressure on the UK design and technology curriculum has been building for some years, essentially since the publication of *All our Futures in 1999* by the National Advisory Committee on Creative and Cultural Education. This report highlighted the need for creativity within schools and the workforce in order to safeguard our future. Inevitably, then design and technology will be a major part of that debate, as one of the school subjects intended to foster creativity. (It's worth noting that around 70% of the environmental impacts of our society can be traced to design decisions, so along with the demands for creativity must go environmental responsibility.) The invited research paper in this issue by David Spendlove, looks closely at what creativity means in the context of design and technology education and reviews associated literature.

These pressures are put in a European context by Wendy Dow and John Dakers in describing a review of the state of technology education as seen by the European Commission. These two papers provide a clear view of the current position. The paper by Dr. Tom Balchin reports part of doctoral research programme which sought to pursue aspects of this creativity research agenda in the classroom, and describes the development of a 'creativity feedback package' to assist both teachers and students at Key Stage 3 (11-14 year old students in the UK). Progress by this age range has been the focus of particular concern in recent years. The final paper by Ian Storer, Kevin Badni, Tracy Bhamra and Simon Farmer et al looks at the role that posters (visual communication) can play in the communication of important messages concerning sustainable design. It is one thing to recognise the importance of taking sustainability issues into account when designing, but quite another to actually do it. The Sustainable Design Awards (SDA) developed by Intermediate Technology Development Group (ITDG, but now Practical Action), have been established to support 16+ students learning to design sustainably. It is widely believed, although rigorous research evidence is largely lacking, that designers assimilate information presented through visual images more easily than when it is presented in other formats. The 'sustainable design' posters discussed in this paper were developed partly to explore this possibility with 16+ students in support of the development of the SDA.

Design and technology is essentially about the creation of our material culture. Hence, it is not surprising that everyone looks towards design and technology when the cracks are showing and new strategies need to be found. However, just because design and technology is concerned with creativity, consumerism and sustainability – environmental, social and economic – does not mean these matters are within its locus of control. Design and technology education is undoubtedly both part of the current problems, and an aspect of potential solutions. It is also important not to see the answer to society's current problems, as an 'education' problem: on that line of thinking it's always up to the next generation and nothing ever gets done. One of the weakest aspects of recent analyses concerning creativity and sustainability issues has been a tendency to see the problems and solutions as lying within today's classrooms.

Time to Move On?

The problems actually lie within today's material culture and those who are playing a part in creating it. It is up to current professional designers, managers and consumers to set about solving them, albeit with the expectation that the next generation will play its part and perhaps surpass their efforts. Design and technology educators will certainly do all they can to ensure that this is the case.

E.W.Norman@lboro.ac.uk

References
Baynes K (2005) *Design and Democracy; Speculations on the radical potential of design, design practice and design education,* DATA, Wellesbourne, UK