

Paul Papin

Visualizing More Sustainable Futures

Contemporary education ignores the future but sustainability education requires it. Here's a compelling rationale and some activities that will help young people think more critically and creatively about the future.

By **David Hicks**

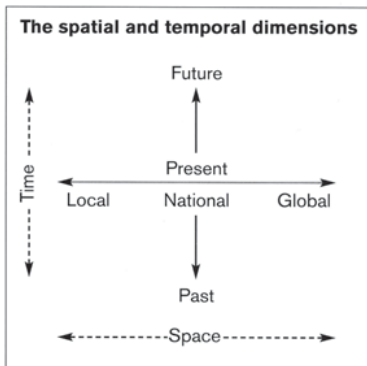
IT HAS ALWAYS SEEMED TO ME that when educators talk about education for sustainability it begs a basic question. If our students can't actually visualise a more sustainable future then how are we ever going to get there? Whilst education for sustainability is explicitly about the present it is also implicitly about the future. I believe that sustainability educators need to draw more overtly on the work of futures educators because they have developed various techniques for making the future more explicit for investigation.

This article thus emphasises four key abilities that teachers and students need in these times: A) the ability to *think* critically and creatively about the future; B) the ability to *visualise* different alternative futures; C) the ability to explore *inspirational* sustainable futures; and D) the ability to teach in a spirit of *optimism* and hope.

Thinking about the future

Prior to the Enlightenment the future was seen as something that belonged in the hands of God. With the subsequent Scientific and Industrial Revolutions, western views of the future began to change – the future was now synonymous with 'progress.' This view remained largely uncontested until the latter half of the 20th century. However when people asked me what I did in education and I spoke of the need to think more critically and creatively about the future, most inquirers thought I might be into astrology or betting on the horses. Until recently most popular books about 'the future' were a fanciful amalgam of technological wonders and wishful consumerist neoliberal thinking.¹

In introducing educators to the importance of clearer futures thinking I often begin with the matrix shown below, suggesting this is a different way of looking at the curriculum as having a spatial and a temporal dimension. I've always found it interesting to ask teachers which elements



of this matrix they feel some responsibility for. Taking the spatial dimension first most people will raise a hand to acknowledge some responsibility for helping pupils understand their local area, their country and the world. What happens with the temporal dimension is

more interesting. Historians quickly claim the past and all teachers feel some responsibility for helping pupils understand the present. There is a good show of hands – until one reaches the future. At this point only a few hesitant hands go up. Primary teachers ask whether this might mean personal and social education and secondary teachers whether it refers to careers. Fortunately someone else also says ‘But isn’t the future about more than that?’ What this bears witness to is the future as a missing element in most of education.²

I think that helping young people think more critically and creatively about the future needs to come before or at the same time as looking at issues of sustainability. The temporal dimension of the curriculum requires that we explore and explain the links between past, present and future and what we can learn from them. One of the things we learn from this process is that our unsustainable practices will lead to an even more unsustainable future – thus the need to explore the nature of more sustainable futures.

Why is it so important to help young people think critically and creatively about the future? Here are the most important reasons:

- **Student motivation:** Student expectation about the future can affect behaviour in the present, e.g. that something is, or is not, worth working for. Clear images of desired personal goals can help stimulate motivation and achievement.
- **Anticipating change:** Anticipatory skills and flexibility of mind are important in times of rapid change. Such skills enable students to deal more effectively with uncertainty and to initiate, rather than merely respond to, change.
- **Critical thinking:** In weighing up information, considering trends and imagining alternatives, students will need to exercise reflective and critical thinking. This is often triggered by realising the contradictions between how the world is now and how one would like it to be.
- **Clarifying values:** All images of the future are underpinned by differing value assumptions about human nature and society. In a democratic society students need to be able to begin to identify such value judgements before they can themselves make appropriate choices between alternatives.
- **Decision making:** Becoming more aware of trends and events which are likely to influence one’s future and investigating the possible consequences of one’s actions

on others in the future, leads to more thoughtful decision-making in the present.

- **Creative imagination:** One faculty that can contribute to, and which is particularly enhanced by, designing possible futures is that of the creative imagination. Both this and critical thinking are needed to envision a range of preferable futures from the personal to the global.
- **A better world:** It is important in a democratic society that students develop their sense of vision particularly in relation to more just and sustainable futures. Such forward-looking thinking is an essential ingredient in both the preserving and improving of society.
- **Responsible citizenship:** Critical participation in democratic life leads to the development of political skills and thus more active and responsible citizenship. Future generations are then more likely to benefit, rather than lose, from decisions made today.

If these are the educational reasons for seeing futures thinking as a vital part of every child’s learning, exactly what might the outcomes be? The main outcome is for young people to develop a futures perspective as part of their personal, social and later professional lives. (See sidebar entitled “Developing a futures perspective”.)

There are, of course, all sorts of social and economic forces at work that make it more difficult to acquire the skills described in the sidebar. In the same way that teachers need to know what stereotypes of other places students may have, they also need to know what their default images of the

Developing a futures perspective

Anticipating the future

- Understanding the value of hindsight
- Understanding also the need for foresight
- In a rapidly changing local/global community

Accepting the consequences

- Of one’s actions on self/others/environment
- In the present and in this place
- In the future and in other places

Envisioning alternatives

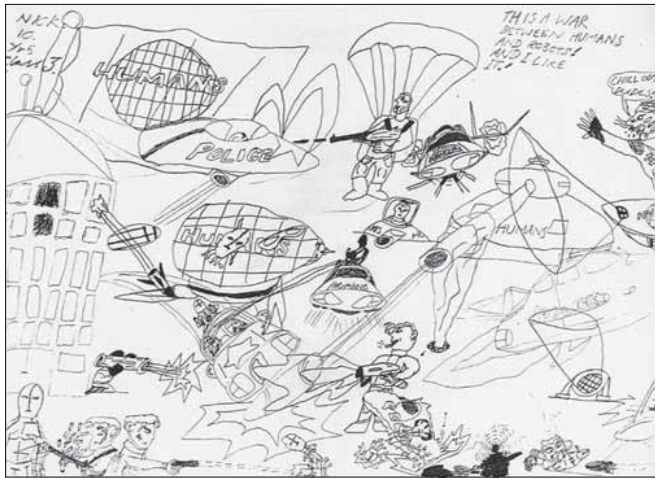
- Considering a range of future scenarios
- At personal, local, national and global levels
- Identifying one’s preferable futures at different levels

Making wiser choices

- Being able to choose from alternatives
- After weighing up both the benefits and disbenefits
- In order to make considered choices in the present

Taking responsible action

- Applying these skills in one’s personal life
- As a member of one’s local/national community
- And as a global citizen



Nick (aged 10)

future are. In western society the future is often thought of in terms of technological development, rising standards of living for all or, increasingly, as a place to be concerned about. Consider the dystopian images of the future conveyed by popular movies over the last thirty years, for example, *Mad Max*, *Judge Dredd*, *Blade Runner*, *The Day After Tomorrow* and *The Road*. Many of these and others will have been seen by older students. But what about younger pupils? Here are two scenes by 8-10 year olds after they were asked to draw whatever came to mind when they thought about the future.

Children's future images

For Nick (aged 10) it's all about a future war between humans and robots, an exciting militaristic fantasy with plenty of fast action, death and destruction. Boys often seem to be fascinated by violence and war, but when younger they often fear that the fighting they see on the news may also occur in their own home area.

For Claire (aged 8) the future is about peace, quiet and nature. The sun is shining, birds fly overhead and pets are present. Everyone is dressed in their best clothes for a special occasion perhaps, or a party. A picnic has been laid out and it looks as if a good time is being had by all. In this future there is the beauty of nature, friendship, the good things of life and conviviality. It should be noted that these are both very gendered futures, with the men at war and the women looking after things back home. Children's notions of the future are a reflection of the present they live in and what they have learnt, or not learnt, from comics and computer games. They are unlikely to find many positive images of the future in the teaching materials they are exposed to. In short their views of the future are likely to uncritical, gendered, consumerist and unsustainable.

Visualising the future

One of the key goals of education should be to help young people and teachers think more critically and creatively about the future. They should understand, for example, that the future is contested territory. Why do some people see the future as leading to the triumph of technology over nature whilst others see the future as living ecologically with nature and learning from the biosphere itself? Is our teaching of the



Claire (aged 8)

'light green' variety, which comfortably just scratches the surface of things, or is it 'deep' green which digs much deeper and questions the unsustainable nature of a free-market economy and the damage it causes to both people and planet?

A good way into futures thinking is the exploration of current trends and events to consider what impact they are having on our lives now and may have in the future. Any trend may diminish and peter out, stay the same, or increase. Whether this is good or bad and for whom will depend on the trend in question. I've found the series *Vital Signs: The trends that are shaping our future*³ to be a valuable resource, with its succinct updates, tables and graphs on key issues. For example:

- Global wind power 3x greater than 2006
- Sales soar for the world auto industry
- Meat production and consumption grows
- World forest areas shrinking each year
- Marine fish stocks continue to decline

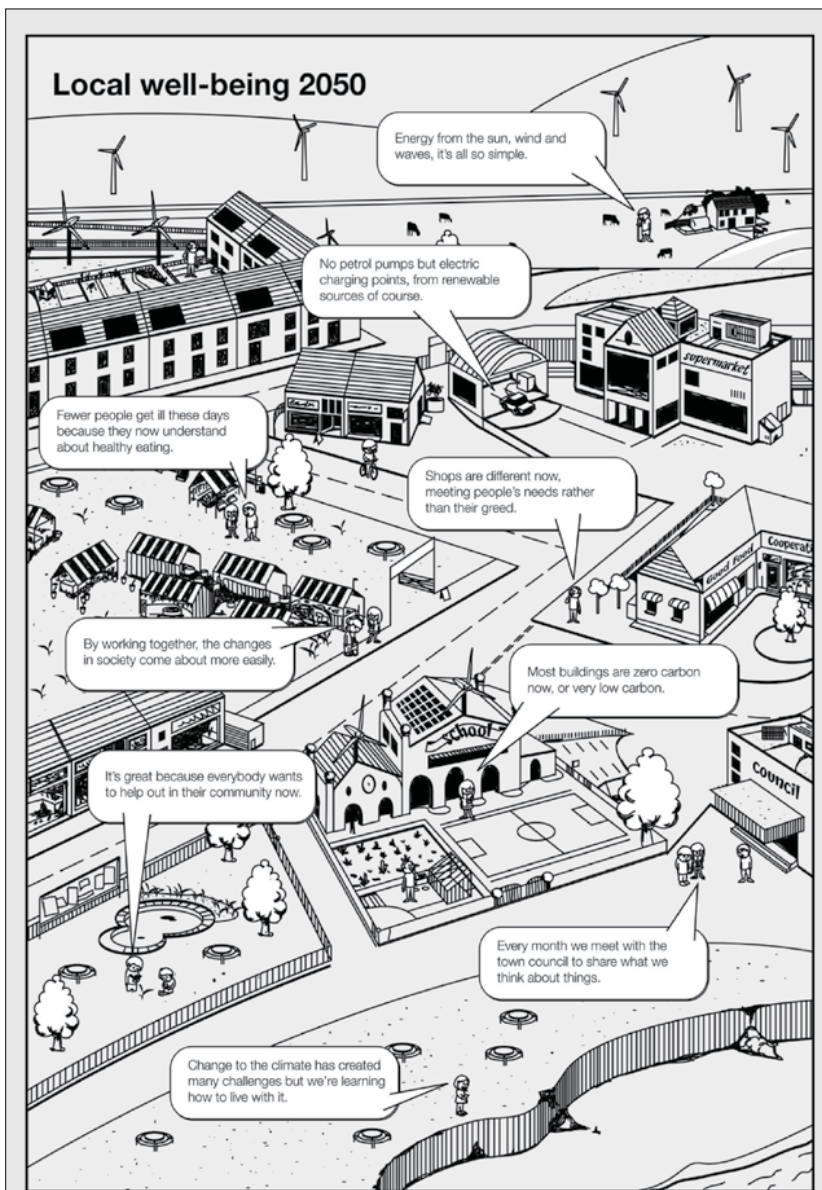
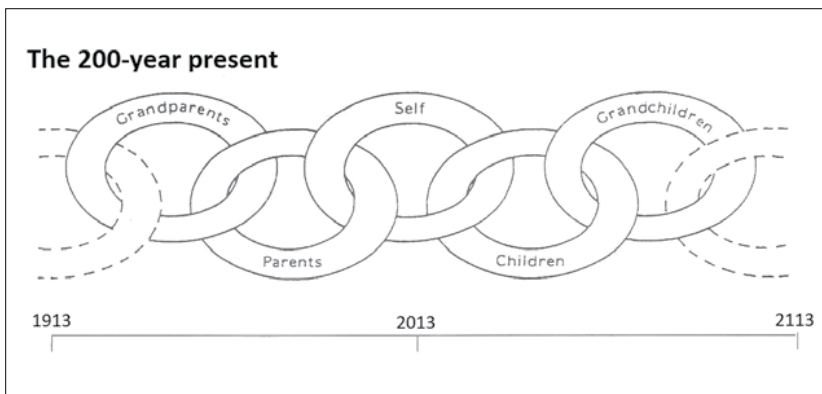
One could take one or more trends to examine in detail. What might be some of the reasons for the increase or decline of this trend? What appear to be some of the drivers for change? If this trend continues to rise/fall what could be some of the implications for your local area/country/globally? Examining selected trends can help answer the questions: Where have we come from? Where are we now? Where do we want to get to? Immersing oneself in a particular trend, whether global warming or the growing use of renewable energy sources, helps to bring it alive which helps learners to more clearly visualise its possible impact on the future. If the extremes of weather we are now experiencing become more common, how can we adapt our homes, schools and communities to deal with this? What would this look like? What is already being done? We need to extend our horizons and learn how to become more aware of our interrelationships in space and time.

It was Elise Boulding who came up with the idea of the '200-year present.' There are people in your community who were born a hundred years ago. Through their lives and their voices you can reach out in time to a hundred years ago. Similarly there will be babies born today some of whom will

live to be a hundred. You can also therefore reach out a hundred years into the future. This is illustrated below in relation to the family and its generations. Our parents and grandparents take us two generations back into the past, our children and grandchildren take us two further generations into the future.

One teacher introduced this notion to her class by asking what things they could think of that might be passed along the generations. Silence followed until one girl tentatively put up her hand and said 'My grandma gave a special ring to my mother ... who said she would give it to me when I'm grown up ... I suppose if I were to become a mum and have a daughter ... I might give it to her ... and if she had a daughter she might pass it on too!' A boy then put his hand up and said 'My mum says I've got my granddad's ears.' A flood of wondrous, but also sometimes painful, connections across the years then emerged. Such discussion can lead to the rights and needs of future generations. What would we wish for them, what might we do now to show that we cared for them? Writing letters to descendants in the future, and from descendants back to the present makes these links feel even more real.

One of the most useful notions in helping to visualise the future is the vital distinction between possible, probable and preferable futures. We talk about futures in the plural because at any one time any number of different futures could come about. *Possible* futures are all those that could conceivably occur, some may be more likely than others, some may be imaginary as explored in science fiction. What interests most people are *probable* futures – that is, those that seem most likely to come about. This is the territory of planners, civil servants, futurists, and indeed most of us. What's most likely to happen next in my life and what do I need to do in order to prepare for that? But, most important, are *preferable* futures, all those which we would most devoutly wish to come about because of our most deeply held beliefs. We thus make plans for ourselves, our children, our communities and work to bring such futures about. This does not necessarily mean they will come about, but they act as a guiding star in our personal and social lives. All those who wish to change society for the better are driven by a notion of what they need to say 'no' to and what they wish to say 'yes' to. For an increasing number of people across the world today that relates specifically to the crisis of unsustainability and the need to work towards more sustainable futures. Being able to think critically and creatively about the future and to visualise a range of probable and preferable futures is essential to this work. Faced with climate change, peak oil and the limits to growth, it becomes even more urgent.⁴



An example of a visual scenario from the *Sustainable Schools, Sustainable Futures*. Look carefully at the scenario of what a more sustainable future might look like. Imagine that you are visiting this future with a group of friends to gather information about it. You can look around to see how things are different and also listen to what people are saying about life in this future.

A journey of hope

Climate change, peak oil and the limits to growth will ensure a very different and turbulent future from today, and a society that will take generations to build, argues David Orr⁵. This is currently described using terms such as low carbon, zero carbon or post-carbon society and is explored in detail in *The Post Carbon Reader*.⁶ The choices we face are between doing very little to prepare for this, which will lead to even more turbulence and difficult times, or doing all that we can to prepare ourselves and society for such changes. In writing about what can be expected in the next forty years, Jorgen Randers⁷ [one of the authors of the original limits to growth report] argues that the crucial choice we have to face is that between 'collapse' and a 'managed decline'.

What is essential here is that we teach in a spirit of optimism and hope. By this I mean that we need to think carefully about how we approach these issues, whether with adults or young people. All too often these matters are presented as dire problems that we quickly need to sort out or there will be trouble ahead. Whilst this may be true, it is not the best way to go about things educationally. Learners should not feel overwhelmed by issues, they should not feel guilty about things, be over worried or feel unable to share how they feel about these things⁸. Our task as educators is not to disempower, but rather to empower learners for the future. Yes, climate change is a 'wicked' problem, one with no easy solution, and potentially pretty scary. However as Paulo Freire⁹ points out "One of the tasks of the progressive educator ... [is] to unveil opportunities for hope, no matter what the obstacles may be." That is the *central* educational issue that we now have to struggle with.

Yes, the climate is changing as a result of human activity. No, of course most people in the twentieth century didn't realise this was what would happen. So what are some of the exciting things in your community and around the world that adults are doing to deal with these changes? What are some of the things that young people are doing now, and can do in

the future? We need to collect examples of success stories for every aspect of sustainability. A lot can be learnt from such stories. They point us in the directions we need to go. They show us the best ways of doing things. What a great intergenerational task to be involved in.

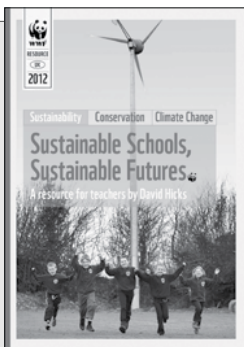
David Hicks is a Visiting professor at Bath Spa University, in Bath, England. He's also a freelance educator with particular interest in climate change, peak oil, limits to growth and the need for a post-carbon curriculum. Details of his work can be found at: www.teaching4abetterworld.co.uk. His book *Sustainable Schools, Sustainable Futures: A resource for teachers* can be downloaded free at www.teaching4abetterworld.co.uk/docs/download18.pdf

References

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Notes

1. More thoughtful popular work about the future is now available, such as Barnatt's *25 Things You Need to Know About the Future* (2012), which includes discussion of key dilemmas such as climate change, peak oil, food shortages and resource depletion.
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6. Heinberg, R. & Lerch, D. (eds) *The Post Carbon Reader*, Healdsburg, CA: Watershed Media
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8. Kelsey, E. & Armstrong, C. (2012) Finding hope in a world of environmental catastrophe, chapter 11 in: A. Wals & P. Corcoran (eds) *Learning for Sustainability in Times of Accelerating Change*, Netherlands: Wageningen Publishers. (See review in this issue.)
9. Freire, P. (1994) *Pedagogy of Hope*, London: Continuum



***Sustainable Schools, Sustainable Futures* book**

Having been involved in global education, futures education and sustainability education for some years, I have drawn these different threads together in a book for WWF-UK called *Sustainable Schools, Sustainable Futures*⁹. I was prompted to write this book after attending a conference for primary school head teachers on education for sustainability. At the conference, two school eco-teams each spoke for a few minutes. They spoke simply and clearly about what they were doing in their schools: organic growing, energy conservation, reducing car use, and their involvement in the local community. I was impressed by their grasp, theoretical and practical, of a wide range of sustainability issues, and their ability to share this with others. I knew that such a generation had the knowledge, insight and skills that would be needed to deal with the many changes ahead.

Eight chapters of the book contain visual scenarios for 2050 setting out what some of the features of a more sustainable future could look like. Speech bubbles show what people are thinking and feeling about living in that future. The idea came from the use of geography fieldwork to visit a site of interest. These scenarios can be used for what one might call 'futures fieldwork'.

Each scenario is prefaced by the same brief explanation and the following set of questions.

1. What are the first three things that you notice about this future?
2. In what ways is this future different from today?
3. What are people doing and saying that is different?
4. What are the advantages of living in this future?
5. What questions do you have about this future?