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Public Understanding of Sustainable Development: Some Implications for Education

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A number of recent surveys of public opinion claim that there is now widespread acceptance of the need for sustainable development, and that the general public, through its social and consumer activity is already successfully engaged. However, in all this, the focus has primarily been on individual and family behaviours such as recycling and reducing energy use. Such surveys do not focus on the increasingly common community-based and social movements which operate in more complex, intractable, and inevitably political, arenas where shifts in government policy and funding, and business values and practice, are the goal. It is not just consumer surveys that have these blind spots; much education practice exhibits it too. Formal and informal education have followed a similar pattern by focusing on individual actions rather than more strategic, and overtly political, developing a coherent social movement around sustainability. Pressure groups campaign for changes in the curriculum, but what is missing is a systematic engagement in the community by formal education, and by researchers. As society gradually 'learns its way forward', shifting its values, norms, beliefs, and strategies towards a more sustainable model of development, it offers an array of opportunities for learners of all ages to witness, critique, be inspired by and become a part of the changes taking place around them. If we are fully to understand the effectiveness of such community-based programmes and initiatives, and help these grow and develop, then educators and educational researchers need to be much more intimately involved than they currently are.

Keywords: education, learning, public opinion, social movements, sustainable development

INTRODUCTION

Sustainable Development – The Idea

In 1996, Dobson said that there were then over 300 definitions of sustainable development. This figure still gets quoted today as though it is still meaningful, and is usually cited, according to taste, either to illustrate a rich plurality of view, or the

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conceptual looseness of the idea. Despite its wide adoption at the global level as a policy goal, critics of the idea of sustainable development still abound, with its being described as an oxymoron or as a compound policy slogan. Clearly, it *is* a, compound policy slogan in the same way that *equal opportunities* is. Linguistically speaking, it is a multi-syllable concept comprising two abstract nouns that each have contested meanings and are already in everyday use in potentially unhelpful ways, and all this is illustrative of some of the difficulties there are in expecting the idea to be grasped by the general public.

Unesco (nd) talks about sustainable development in this way:

- *Sustainable development is the overarching paradigm of the United Nations. ... There are four intertwined dimensions: society, environment, culture and economy. Sustainability is a paradigm for thinking about the future in which environmental, societal and economic considerations are balanced in the pursuit of an improved quality of life. Sustainable development refers to the many processes and pathways to achieve a more sustainable world (e.g. sustainable agriculture and forestry, sustainable production and consumption, good government, ...)*

This language is difficult: far too many *paradigms* and *sustainables* to make easy reading or conceptual sense. The Brundtland Report (1987), which is popularly cited as the origin of the idea, is not much better. It says that sustainable development is:

...development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- *the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and*
- *the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."*

(WCED, 1987, Chapter 2, paragraph 1)

Unfortunately, it is usually only the first 20 words that are cited, omitting the rather important qualifying text that follows.

The key ideas within the concept of sustainable development might be summarised like this:

- *Humans are increasingly living on the Earth in ways that are over-taxing the biosphere's ability to support all life in terms of the goods and services it provides;*
- *The growing inequalities between people across the world in terms of access to resources and achieving well-being are both an affront to human dignity and a source of international and intercultural instability.*
- *Because of these, a different way of socio-economic development is now needed that will enable everyone to live well, and within the Earth's ability to support us – now and in the future, ...*
- *and hence the idea of sustainable development, with its on-going ethical commitment to the well-being of all humanity and the biosphere.*
- *All this implies working to find solutions that improve the quality of lives without storing up problems for the future, or impacting unfairly on other people.*

It is not difficult to illustrate some of the concrete issues involved; eg:

- *resource depletion, habitat destruction, species loss, pollution, over-fishing and over-grazing, population increase, ocean acidification, global warming and climate change, ...*

- *health inequalities, child mortality, low life expectancy, poverty, debt, social exclusion, lack of political freedoms …*

All of which we refer to as social, or socio-economic issues – as if they were completely separate, and separable, from the environmental. In English, we don't use the phrase *socio-environmental*. As ever, our habits of mind are captured in our language. This lacuna is evident in OECD definition of human capital: "the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being" (OECD, 2001). Unfortunately, this limited definition now informs the UK's proposed education indicator within its draft sustainable development indicator set. Where is *environmental well-being* in all this?

This is a more nuanced view of the idea of sustainable development that also sums up the communication problems involved in reaching mass audiences:

- *Sustainability refers to a broadly identifiable, but often poorly specified, set of social, environmental and economic values. Although the details are often ambiguous, contested and context-dependent, the functions concerned include the securing of particular standards of social equity, economic well-being or environmental quality. In this policy context, then, structures – such as particular laws, technologies, infrastructures or institutions – are not ends in themselves, but means to the ends of delivering on these broad normative aims.*

(Leech *et al*., 2010)

This, although it is silent on thelearningweshallallneedto do, doesgettotheheart of theissue. It is clearfromallthiswhysustainabledevelopment is difficulttothinkand talk about, andtobringintobeing. This is a problem as sustainabledevelopment is theglobalstrategytosolve global problems, witha framework of sustainable development goals (SDGs) and targets for the period 2015-2030, building on millennium development goals, set to be agreed by the United Nations in 2015.

What Do People Understand?

Although it is hard to get data on what people actually seems to understand by sustainable development, and to know much about its validity, some illumination can come – sometimes from unusual sources. In what follows, I look at four particular data sources, starting with the UK and finishing with a 14-country study.

These are the conclusions of a UK supermarket chain (ASDA, 2012) from regular monthly surveys of 6000 of its customers whom it terms 'green experts'

- *Sustainability isn't a bolt on or stand-alone element of people's lives – it's now a part of them; as normal as having a cup of tea.*
- *And it's not something that falls by the wayside when times are tough – it actually becomes more important than ever*
- *96% say they care about green issues, with over 70% claiming to care a lot – no matter what their gender, age, location or income level.*
- *Those on the lowest incomes say they care and act on sustainability as much as those on the most comfortable incomes.*

Primae facie, this suggests that there are few problems in people's understanding attitudes and activities. But how much of this should we believe? The sampling, of course, is not random, as respondents are likely to be people who are interested in the issues and committed enough to take part in regular surveys. However, allowing *some* validity in it, just what is it telling us? And what, if anything, does it have to do with sustainable development?

ASDA (*op. cit*.) concludes its report with this thought: "For public policy this means that less effort should be spent on convincing people to be green and more

expended on *helping* them to be green(er)." This is a challenging conclusion if your organization is in the *convincing* business. It is important to note, perhaps, that the ASDA text has shifted from *sustainability* to *green*, and so some skepticism is warranted as to what exactly is being discussed.

There is an echo of all this in a 2012 report from the UK's *Green Alliance* that draws on UK and international data (including the ASDA study cited).

These are some of its main points:

- *Most people want their lifestyles to be both green and affordable.*
- *Austerity has made saving energy and cutting waste more normal and important.*
- *Wanting to 'do the right thing' is the main reason for buying green products. 79% said this was their primary motivation, and this feel good factor is most powerful for lower income households (83%).*
- *Support for action on climate change remains strong.*
- *44% of respondents to a 2011 Eurobarometer survey said that climate change was the single biggest problem facing the world. 39% said it was the economic situation.*
- *A YouGov survey in the UK showed that 74% of adults think government should use more solar energy than at present, and 60% said government is right to subsidise wind energy.*

(Green Alliance: *What people really think about the environment)*

People said they wanted government leadership and direction to put individual actions in context, and to make progress coherent and fair. They said they wanted government to explain in clear and simple terms why a shift in energy use is needed, and to set out concrete goals and deadlines, – and to explain how government, businesses and individuals will *all* need to participate. So, are people ahead of governments in how they think, and what they'd like to happen – and are governments somehow fearful of acting on this?

But, again, how much of this can be believed? Then, even if you think this is an accurate reflection of social thinking, does it have anything to do with sustainable development, *per se*? More sharply, *what* does 'green' have to do with sustainable development?

Table 1 is taken from a UK government survey (Defra, 2011) based on 1,700 face to face interviews in England conducted in March 2011.

No definitions or explanations of the concepts were provided to respondents; nor was any guidance given about what 'lot' , 'fair', or 'little', etc meant. Neither was there any validity check on what people actually *did* understand. In all this, it seems to me that the 44% figure for understanding climate change 'a lot' or 'a fair amount' has to be delusional, and illustrates the problems implicit in such one-dimensional studies.

Table 1. English respondents' self-declaration of knowledge of climate change, ecosystem services and biodiversity

% Respondents' self-declared knowledge of …	Climate change	Ecosystem services	Biodiversity
A lot / a fair amount	44	18	18
Just a little	44	33	30
Nothing, have only heard of the name	8	18	18
Nothing, have never heard of it	2	28	31

What might we conclude from all this? The following is a tentative overview so far on what this literature is illustrating:

- *Most people have little idea about sustainable development, which, if it thought about at all, is taken to be a synonym for being green.*

- *People seem to think that being green is what they do already, and hence consider their lifestyles to be reasonably sustainable.*
- *And in their view sustainable development (ie, being green) is now normalized through activities such as recycling, not using plastic bags, insulating the loft, walking to the shops, more careful driving, etc.*
- *People understand sustainable development less than they think (and less than they are told they do)*
- *They think (because they're told) they're being really effective, but they're not*
- *No one, including government, really explains the issues to them, but this is needed,*
- *Mosteducatorsareremote from what is happening in society about sustainable development.*

What people do already are all the easy actions, with no acknowledgement of the scale of change that will likely be needed. However, there may well be a recognition of the seriousness of the issues, and a positive attitude towards the need for change. This tends to suggest that people think they understand the problems, and already feel part of the solutions – and are wrong. And it reveals the idea of *green behaviours* a conceptual morass.

Looking more broadly, a global survey of 18,000 people in 14 countries by Ipsos MORI (2012) examined public attitudes to behaviour change measures across four issues that included healthy eating and sustainable living. Some of its rather positive conclusions are set out here:

- *The public are much more supportive of policies directed at businesses than those directed at individuals.*
- *Around a third of people seem to endorse tougher action but also say that the state shouldn't get involved in people's specific choices around living sustainably.*
- *People generally want to be able to make specific choices for themselves, but are amenable to governments and trusted professionals making it more obvious and easier to choose the best option.*
- *The more prosperous a country is, the less likely its public are to support behaviour change interventions. Within countries, wealthier individuals tend to be more supportive of behavioural intervention than those with lower incomes.*

Note the dissonance in points 2 and 3 around wanting state intervention, but not, presumably for them: a nuance of the not in *my* back yard (NIMBY) phenomenon.

Support for outright bans of behaviours is particularly high in countries with authoritarian cultures and centralised governmental structures, but support for interventions decreases as the force of an intervention increases. For example, the provision of information or incentives is largely popular, but legislative approaches less so, especially when more freedoms are lost. The report concludes that people expect government and businesses to take a bigger role in moving them towards more sustainable living. They expect government to set out and explain a vision of a sustainable future that their policies will help to build, and to help citizens to play their part by making positive choices easier.

This was also a clear message from research for the Joseph Rowntree Foundation (Horton &Doron, 2011). This reported that a sense of fairness was a strong motivating factor for people who felt that if efforts were needed to change consumption patterns, then everyone should be required to do this through greater regulation or legislation.

The 2012 Ipsos MORI report suggests that, when considering the likely success of an intervention, a useful question to ask is how well prepared is the public for this?

Prepared in the sense of recognising the issues, understanding potential benefits, a belief in the effectiveness of what is proposed, and the acceptability of the action. The report says that, because of this need for preparedness, there needs to be a close understanding, not just of the issue itself, but also of its cultural context. It concludes that there are no single levers to pull that will result in a desired change in a specific behaviour, and that understanding what the public really thinks is vital for knowing what to do, and when to do it.

In addition to ideas like doing your bit, and wanting government to help, the following seem reasonable conclusions from a range of studies about engaging people.

- *People care most about issues near to them – hearth and home; family, friends and community; and jobs, the local economy, quality of life*
- *These are sources of fulfillment and stress – but not really seen in relation to sustainability*
- *Place is hugely significant – and is about people as much as context; atmosphere as much as facilities and objects.*
- *People like the idea of being engaged in decision making, especially on a local level*

The Policy Focus

One of the issues that all this exposes is the extent to which there has been an overemphasis in policy measures on personal agency, with a tendency to view people as individual actors who need to know what to do and what not to do, for example, in relation to saving energy, reducing waste, etc.

The typical behaviours encouraged by governments are those carried out by individuals and families. But this ensures an emphasis on things that are relatively easy to do by individuals, as opposed to actions that people are not able to do on their own – such as addressing system-level problems or community-based issues – for example, getting an organisation to change its procurement policy and practice, and so reduce carbon and waste at source, or getting government to be serious about taking carbon out of the electricity supply chain. This, individualised view neglects the picture of people as social and public actors engaged in the messy business of democratic citizenship that is so central to the received view of a more sustainable society, and to getting things done – for example, through interaction with social institutions about their practice to make a real difference to people's lives, and to community well-being. It can, of course, be somewhat political in nature, but, then, that is the point.

I have argued before (Scott, 2011) that an education focused around sustainable development will likely have a stronger impact if it is actioned in citizenship terms. That is, as an inter-play between practical and citizenly understanding, knowledge, values, and skills, in an open-minded, social engagement with the key issues of the day, particularly if it is the view of citizenship as set out by Westheimer & Kahne (2004). Here, the core assumption is that, in order to solve social problems and improve society, citizens must question and change established systems and structures when they reproduce patterns of injustice over time. For example, they …

- *critically assess social, political, and economic structures*
- *explore strategies for change that address root causes of problems*
- *know about social movements and how to effect systemic change*
- *seek out and address areas of injustice*
- *explore why people are hungry and act to solve root causes*

This seems increasingly important as the historic tension across developed economies between stability and change – and between certainty and speculation –

is now in high relief. There is an obligation to maintain socio-economic structures, but, also to challenge them. So, there are questions here about focus, and allied ones about purpose and agency, and coherence. The following is a slight paraphrase from a 2012 New Economics Foundation (NEF) report titled *The Wisdom of Prevention*:

"Sustainable development means building an economy that serves the interests of people and the planet, by promoting well-being and sustainable social justice for all, and so we have to understand why things go wrong, and tackle the underlying causes of harm – for example:

- *cutting greenhouse gas emissions, safeguarding natural resources, enhancing biodiversity and stopping pollution of air, land and water."*

This is core environmental education (EE) and education for sustainable development (ESD) fare. But, to be comprehensive, we need to add, as NEF does, the following …

- *"tackling the underlying causes of poverty, unemployment, ill-health, illiteracy and homelessness, reducing crime and social conflict, insecurity and distrust.*
- *regulating financial institutions to prevent reckless speculation, investing in good jobs and renewable energy, taxing polluters and discouraging carbon-intensive production."*

Not all of the points made in the last bullet are core EE / ESD ideas, but NEF would say all such ideas are ultimately indivisible and that all that we are interested in is found in economics and politics. In that sense, the only tenable position is that we cannot address one without at least *thinking* about the others, which is a view that has the merit of coherence.

NEF also says that these underlying causes of harm can be mutually reinforcing, and so adopting a preventative approach can bring multiple benefits. Its report contrasts different levels of action, which can be illustrated as:

- *upstream prevention – interventions to address the underlying causes of problems, usually at whole population / system levels.*
- *downstream remedial – measures to deal with the consequences of harm, to mitigate its effects and / or stop things getting worse.*

The report talks in terms of real-world problems themselves, and the causes of the problems. The difference here is between making a difference at the margins, or easing systemic change, although these are not necessarily mutually exclusive. Table 2 shows the examples that NEF provides at a government level:

The report argues for prevention, and says that bottom-up prevention is best, with people and organisations becoming more resilient: building up their own immune systems, both literally and metaphorically, so that they become less susceptible to harm, changing attitudes and capabilities so that they are better able to take positive actions themselves.

People who want to do good in the world are committed to helping those who are already needy, and to solving current problems. They may see preventative measures as a diversion, and to tackle this problem we must change professional cultures, build up skills, knowledge and experience, and challenge the ethics of failing to prevent harm. NEF says that the logic of prevention seems to contradict the 'rescue principle' that defines much philanthropy, charity and most health care. Rescue and cure tend to have immediate, tangible and measurable results, while preventative measures are more long-term, complex and harder to measure. NEF says this creates a political bias against shifting the balance of investment from problems to causes at the very moment when we most need to do this, for the ideas that shape our economy and politics are still pulling strongly in the opposite (that is, the wrong) direction. That is, less emphasis on fixing problems, and more on preventing them, for example, by taking carbon out of electricity production. This is an interesting example because families can do something about this at the margins

by setting up a solar PV system, as can communities similarly through shared ownership of assets, for example a wind turbine. And all this is fine, but doesn't focus on the macro change that only government can bring about through policy shifts, regulatory change, economic levers, and investment activity, for example.

Table 2. Examples of different levels (upstream & downstream) and types (prevention & remedial) of government action

Upstream Prevention	Removing carbon from the electricity supply chain.
Downstream Remedial	Carbon capture and storage for emissions from coal-fired power stations
Upstream Prevention	Changing building regulations to move to zero-carbon housing.
Downstream Remedial	Retro-fitting the building stock to improve insulation levels etc.

It is a similar story with biodiversity. While families, communities and wildlife NGOs can act to enhance biodiversity through garden and communal planting and cultivation, and make a small difference, it is farmers and large land-owners who have much greater influence, and government regulators who pull the strings.

This upstream / downstream idea can apply to communities as well as government. But the NEF report says action at this level needs strong support to tackle the political, economic and cultural factors that have helped to cause the problems in the first place. People need information, education, advocacy and strong leadership if they are to understand, and to act. These, NEF says, are formidable barriers.Well, up to a point they are, but don't we see such action around us already, and might NEF have looked more widely for its examples? Although the report mentions the Occupy Movement (Hawken, 2007), and talks in terms of the "Great Transition" that will be needed, there is no mention of the actual transition movement (Hopkins, 2008), for example, that now operates on the ground within a number of UK towns to try to ease their becoming less unsustainable, or to experimental communities such as Findhorn, or to the many villages and towns that are seeking transition through energy (such as Chewton Mendip) and other means of, cooperation.

Thus, might it be that there is much more going on than the public is generally aware of in a social (as opposed to an individual) sense? Might it also be that EE and ESD researchers, as well as supermarkets, are rather neglectful of such developments, and are focusing too much on individuals and families?

Burns (2012) argues that, not only is a societal paradigm shift taking place and giving rise to changes in our socially-shared cognitive-normative frameworks in terms of values, norms, beliefs, and strategies, but also that these are giving rise to principles and modes of social organization on multiple levels:

- *a moral-cognitive level;*
- *a level of action and the establishment of new practices on the part of individuals, groups, and organizations; and*
- *an institutional level as green institutional arrangements and policies are promoted, often cautiously, but sometimes boldly—with varying degrees of success*

These developments are not, and need not be, coherent or complete; indeed, how could they be? We are all part of this, one way or another, and Burns wonders whether they will happen fast enough to save us.

Burns coins a new term, *sustainalisation*. He argues that we're witnessing the early stages of a new *societal revolution* comparable in scale and import to the industrial revolution, and that implies a new type of society, or family of societies, which, he says is being forged, piece by piece, organically, as he terms it, where many sustainability designs, plans, and initiatives at different levels have been

developed as people try to forge new systems and modes of working and living, rather like that which occurred during industrialisation. Burns says that we can find the following:

- *the increasing articulation and development of new values, norms, standards, of a green normative perspective.*
- *an ever-growing generalized judgment that green patterns of action and developments are socially good.*
- *increasing narratives about green ideas, values, and standards, which circulate in widening circles.*
- *institutionalization of green standards in decision and policymaking settings in government agencies, corporations, and associations.*
- *green technological developments; design and production of new green technologies, development of green / greener policies and systems.*
- *the growing role of green thinking, conceptions, standards and practices in many areas of social life;*
- *the greening of consumption.*
- *increasing stakeholder involvement in economic and policymaking power.*
- *a new readiness to experiment or innovate with green ideas, designs, technologies and practices in business, NGOs, government agencies, etc.*
- *new regulatory mechanisms supporting and promoting green innovations and developments.*
- *the growing role of "green" entrepreneurs and a belief in a green economy.*
- *new practices, for instance new accounting conceptions and standards such as triple bottom line.*

There is clearly something in this analysis, and each category could be exemplified with practice, though probably with counter examples too. Burns says that all this is being facilitated by diffusion and collective learning of new values, ideas, and practices through associations, communities, business, and political networks. Through these, not only are values and beliefs shifting with some limited reordering of priorities, but governance reforms and innovations, and changes in many daily practices are also emerging. Burns says that this process results, on an aggregate level, in adaptations and shifts in the institutional and cultural arrangements that are organic with different agents at different levels driven by diverse motives and interests. He says that a range of key factors explains why the sustainability revolution is likely to continue and even to accelerate:

- *continuing environmental crises (that will not go away)*
- *continual outpouring of critical analyses and prognoses about the current failings and hazards*
- *normative ethos and collective pressures*
- *sustained creative challenge; the excitement of innovating, experiencing the new, its opportunities as well as exhilarating risks and uncertainties*
- *the paradigm shift itself entails new ways to frame, think, judge, and act that are challenges to be mastered and developed*
- *diffusion and imitation mechanisms through diverse social networks*

Burns says all this sustainalisation is likely to proceed much more rapidly than industrialization because of:

- *industry itself, and the resources and capabilities of modern science and technology*
- *more rapid and widespread advanced communications*
- *large numbers of people, groups and institutions already mobilized and acting to drive sustainability improvements and transformations.*

Burns is not alone in identifying what are sometimes termed "green shoots" of a different sort of practice. In his *Afterword* in a recent book (Wals & Corcoran, 2012), Sterling (2012) writes:

- *"Years ago, I thought that the multifaceted and critical nature of global crises … would in themselves generate awareness and critical reflection sufficient to exert some braking and change of direction. To an extent, they have, and there is far more discussion and practice of sustainability orientated activities of all kinds than there was … ."*

He goes on to quote Atkinson (2011: 21)

- *"... the good news is that this is a transformation already underway. The bad news comes in the form of a challenge: How fast can we make ... beneficial changes happen?"*

Though people obviously are involved in these developments, what Burns calls *sustainalisation*, the bulk of the public seems only dimly, or un-aware of such shifts, and the surveys drawn on earlier in this paper do not help remedy this deficiency because of their consumer, as opposed to social change, focus. It seems axiomatic that such movements would be both more vibrant and successful were more people to become involved in what they do.

And What of Education and Research?

Given all this, where should educators focus? Is it in relation to problems, or to the causes of problems, and should *interventions* be addressed to individuals and families, or to social groups? The point here is that the choice implies a different way of thinking about outcomes, a different approach to pedagogy, and different modes of evaluation. It certainly seems the case that, if we focus on prevention, then we need a strategy that takes sustainability and society (economics and environment) into account – as NEF argues. And the more we work with individuals on remedial matters, the less we need to think about this wider picture, and the less the focus will be on sustainability. This is a problem which the developers of action competence approaches (Jensen & Schnack, 1997) were fully aware of.

There is nothing very much in what Burns says about environmental education or ESD, and education is not identified as a driver of change. However, we can see what takes place in educational institutions as providing examples of both the change Burns talks about, and the barriers he acknowledges.

This perspective throws the consumer research data presented earlier into sharp relief, and calls for much more and better communication of socio-sustainable developments to the public, which is something that sustainability-focused education researchers are well placed to be a part of, and it seems important that EE and ESD research should focus on such transformation processes and the leanings they give rise to. To do so, however, will entail abandoning the conceit that it is formal education that is in the vanguard of the emerging change.

To be able to do so, we shall need more empirical studies of the organic socio-economic transformation processes that are now around us, and of the learning through practice that these represent. These may involve, so-called, grassroots activities, but are not exclusively so, as some of our largest corporations and institutions are involved with each other, with governments, and with social enterprises large and small. There are many examples of this. In these organic systems, typically, a number of groups and actors are involved, each working on the change in their own contexts, being connected through networks, and direction can emerge, even though it is not intended. Such continuing uncertainties are to be expected; indeed, there would be a problem were there not such contestation, given that sustainable development and sustainability are political ideas rather than

precise ones amenable to easy agreement. None of this will be smooth; values and self-interests are at stake, and will be defended. We are still arguing, for example, over preferred forms of democracy.

FINAL COMMENT

To return to the title, and the problems of researching, learning and sustainable development, it seems we know, as a field, that we're not yet sufficiently part of these on the ground developments.We know that we are not working in these concrete contexts as change takes place, and that we should be.

In other words, education has focused on the campus (green, individual, behaviors such as recycling and reducing energy use), while pressure groups have campaigned for changes in the curriculum, but what's really missing is a systematic engagement in the community by formal education. As society gradually 'learns its way forward', shifting its values, norms, beliefs, and strategies towards a more sustainable model of development, it offers an array of opportunities for learners of all ages to witness, critique, be inspired by and become a part of the changes taking place around them.

This is true of formal (institution-based) education, while informal education (e.g. public awareness campaigns) has followed a similar pattern by focusing on individual actions and sharing scientific data rather than more strategic, and overtly political, messages about the possibility of growing a coherent movement around the sustainability revolution. If we are fully to understand the effectiveness of community-based programmes and initiatives, and help these grow and develop, then educators and educational researchers need to be much more intimately involved than they are at present.

REFERENCES

ASDA. (2012). *Green is Normal*. Leeds: ASDA. Retrieved October 29, 2014, from http://your.asda.com/system/dragonfly/production/2011/12/15/16_13_37_444_Green_is_Normal_ASDA_SustainabilityStudy.pdf

Burns, T. R. (2012). The Sustainability Revolution: A Societal Paradigm Shift. *Sustainability,* 4,1118-1134.

Defra. (2011). *Attitudes and Knowledge relating to Biodiversity and the Natural Environment (2007 – 2011);* London: Department for the Environment and Rural Affairs. Retrieved October 29, 2014, from http://webarchive.nationalarchives.gov.uk/20130123162956/http://www.defra.gov.uk/statistics/files/Statistical-Release-13-April-2011-biodiversity1.pdf /

Dobson, A. (1996). Environment Sustainabilities: An analysis and a typology. *Environmental Politics, 5*, 401-428.

Green Alliance. (2012). *What people really think about the environment: an analysis of public opinion*. London: Green Alliance. Retrieved October 29, 2014, from http://www.green-alliance.org.uk/resources/What%20people%20really%20think.pdf

Hawken, P. (2007). *Blessed Unrest: how the largest movement in the world came into being and why no one saw it coming.*New York:Viking Press / Penguin.

Hopkins, R. (2008). *The Transition Handbook: from oil dependency to local resilience*. Totness, UK: Green Books.

Horton, T. & Doron, N. (2011).*Climate Change and Sustainable Consumption: What do the public think is fair?* London: Joseph Rowntree Foundation. Retrieved October 29, 2014, from http://www.jrf.org.uk/sites/files/jrf/sustainability-attitudes-fairness-full.pdf

Ipsos-MORI. (2012). *Acceptable behaviour: public opinion on behaviour change policy*. London: Ipsos-MORI Social Research Institute. Retrieved October 29, 2014, from http://www.neweconomics.org/publications/the-wisdom-of-prevention

Jensen, B. B. &Schnack, K. (1997).The action competence approach in environmental education.*Environmental Education Research, 3(2),* 163-78.

Leach. M., Charles, A., Stirling, C., &Scoones, I. (2010).*Dynamic Sustainabilities: Technology, Environment, Social Justice*. London: Earthscan.

NEF. (2012). *The Wisdom of Prevention: long-term planning, upstream investment and early action to prevent harm*. London: New Economics Foundation. Retrieved October 29, 2014, from http://www.neweconomics.org/publications/the-wisdom-of-prevention

OECD. (2001). *The Well-being of Nations: the role of human and social capital*. Paris: OECD.Retrieved October 29, 2014, from http://www.oecd.org/site/worldforum/33703702.pdf

Scott, W.A.H. (2011). Sustainable Schools and the Exercising of Responsible Citizenship – a review essay. *Environmental Education Research,* 17(3), 409–423.

UNESCO. (nd). Sustainable Development. Retrieved October 29, 2014, from http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-sustainable-development/sustainable-development/

WCED.(1987). *Our Common Future;* World Commission on Environment and Development. Oxford: Oxford University Press.

Westheimer, J. &Kahne, J. (2004). What kind of citizen? The politics of educating for democracy.*American Educational Research Journal,41(2),* 237-269.

