

The roots and routes of Environmental and Sustainability Education policy research – an introduction to a virtual special issue

Jonas A. Lysgaard (Aarhus University)

Alan Reid (Monash University)

Katrien Van Poeck (Ghent University)

Why a VSI about Environmental and Sustainability Education policy research?

Linking particular concepts of environment and sustainability with key themes in educational policy remains a heavily contested practice. Whether it is carried out in relation to curriculum and pedagogy in schools or the public realm (Reid 2015), education on its own appears to create more than enough debate (Ozga 2007), while adding environmental perspectives and then the troublesome idea(1) of sustainability (as with the Sustainable Development Goals), has made for neither clear waters nor smooth sailing, particularly in policy circles.

Practitioners, policy actors and researchers working with and across diverse levels of decision-making, of course, continue to face various shifts and combinations of intention, practice and claims as to what counts as ‘useful knowledge’. Are they each to show awareness of research findings, for example? Or that they ‘accept’ them? Work out how they are locally applicable? Or expect that they are something they can act on, adopt or adhere to, for example? Keeping up, let alone knowing what to expect is on the horizon in policy, research and practice remains a perennial challenge (Nutley et al. 2007). So we might wonder, is there a way out of this, or even beyond, for all concerned? Must practitioners, policymakers and researchers, for example, remain locked in battle on these topics – be that through offensives, rear-guard actions, guerrilla tactics, and so on (Lingard 2013) – particularly given such a dynamic terrain for, and populace working in, Environmental and Sustainability Education (ESE) policy, practice and their research?

...

The broad purpose behind this Virtual Special Issue is to press these concerns well beyond any sense of existential angst let alone rhetorical flourish. Our aim in preparing it has been to consider how such challenges might be illustrated, addressed, problematized and possibly transcended, by considering examples drawn from the last two decades of ESE policy research found within *Environmental Education Research*.

First, the contributions to the VSI illustrate how researchers have understood and dealt with policy issues in relation to the field, both conceptually and empirically. These illustrate a range of possible stances of researchers to influencing public policy, such as those described by Nutley et al. (2007, pp.11-12), as the *consensual*, *contentious*, and *paradigm-challenging*. An important (and of course, debated) argument within ESE research illustrates these distinctions well. It concerns whether the systemic and holistic demands associated with key environment and sustainability systems concepts can, do or should (not) comprise an isolated field of concern, particularly when it comes to education, or is some other form, configuration or relation to the wider world required, if not avoided to address these matters well?

In practical terms, such as in schools, this translates to questions such as: should ESE be hidden in corners of existing curricula, if not dusted down for special events or celebrations, e.g. an Environment Day or Sustainability Festival, particularly so that it only ever amounts to the ‘greenwashing’ of education? Or, it is argued, mustn’t ESE become (if not remain) core throughout curricula in general - and an education more generously conceived - so that the ‘grand challenges’ of the world can actually be addressed by society and by those wider social movements seeking to shape the focus and sense of what education is, and what it means to be educated in these times (**Sund & Ohman 2014**)?

Second, and relatedly, any claims to bold and vital ideas hitched to associated priorities in policy-making and practice cannot be dealt with, or researched, from solely from inside one field alone. This is because any complex social problem always demands that those wider deliberative frames that create and position the notion of a field are engaged too, particularly if communities of research, policy and practice are to be able to pursue, test and refine the importance of the arguments advanced therein (Saunders 2007). With such a perspective, the *environmental* and *sustainability* and *education*, as well as their core concepts and contentions, can be seen to be not significantly different in importance to those of other fields made familiar through a shared labelling as ‘adjectival educations’. Here, education as a public good, and thus as a way of wanting something for others – e.g. health, justice, welfare, opportunity - demands explicit public policy and justification. It simply can’t rely on ‘policy fiat’ or ‘policy borrowing’ to have traction. Equally, in recognising that processes of contextualization, decontextualization and recontextualization are at work here too, to differing degrees, Lingard (2013, p.118), relaying the words of Orland (2009, p. 115), notes:

we can also see that research is and perhaps can only ever be one contributing factor for shaping education policy. ... “Even the most compelling and relevant research findings may fail to penetrate the policymaking process and, where research influences are manifest, their contributions are likely to be both indirect and incremental.”

What is at stake, it would appear, in such contexts and spheres for policy-making and its practice implications, is how to shape, govern, direct, and critique activities and actions in a contested space for education, be that for ESE or other matters of concern. This is because such spaces are always (to a certain extent) limited, contingent and fragile, particularly because of being subjected to various political forces at play in the ‘(eco)culture wars’ of education – i.e. understood as referring to the *economic* and *ecological* (Connolly 2013). Thus

compelling critiques of the status quo about education, environment and sustainability also demand engagement with neighbouring, and often more powerful fields and demands on what should constitute educational priorities, and education itself (e.g. subjects, disciplines, fields of experience, and so forth). And in this, most crucially, a rich and critical research field is argued to be needed, to help develop, sustain, challenge and innovate it (see **McKenzie et al. 2015**). Why? Because it is simply naïve to believe that ESE research is to be used in a simple, linear and direct application, such that specific findings get channelled to a specific policy or practice, particularly when each component can act in parallel and interact dynamically, depending on the context and history of policy / innovation to hand.

So third, by way of a VSI, we use its contributions, introductions and editorial to trace how ESE researchers have actually dealt with trends, complexities and issues in the policy-practice-research nexus through specific examples drawn from the back catalogue and forthcoming contributions of the journal (e.g. **Aikens et al. 2016**). There is a classic distinction to be recognised here in such papers: between research *off for* policy (Gordon et al. 1977), and thus between the ends-in-view that contrast *enlightenment* with *engineering*.

While some have argued these are a continuum or can be combined, such as in the work of ‘policy entrepreneurs’ (see Kingdon, 1984, and Ball and Exley 2010 – on how individuals might advocate certain policy ideas or proposals and play a key role in bringing research to policy-making by championing a set of findings that support their position), we note there has been little traction with such notions in this research field until recently, looking as it does, to innovate what it researches, theoretically and empirically.

However, a strong case can be advanced that during the UN Decade of ESD, Professors Arjen Wals, John Fien, Chuck Hopkins and Daniella Tilbury, each dallied with such entrepreneurial roles and opportunities in their own ways. As a topic ripe for further inquiry then, we will return to this in the editorial when raising questions about the changing roles, responsibilities and careers of researchers, scholars, academics and ‘policy workers’ in this field. But before then, as Weiss (1999) has noted, interests, ideology, information, and institutions work as the key factors in shaping public policy and the use of research within this process. The policy actors here may include academics and researchers (as ‘policy entrepreneurs’ - as with the aforementioned professors in education), and from other fields. With the UN Decade, for example, information about the ‘state of the earth’ had been previously used to shape interests and ideologies about development at UN conferences in Stockholm, Rio and Johannesburg. It also appears in their agendas aimed at policy makers, with these being designed to change the practices and cultures of institutions, including those of education. Key policy mechanisms here included, Chapter 36 of Agenda 21, and establishing a UN Decade of ESD to continue efforts to re-orient teaching and teacher education towards sustainability, with an associated policy guidance, research and evaluation framework to support that.

Nutley et al. (2007, pp. 108-9) regard such instances as ripe for research, given they are typical of attempts by policy entrepreneurs (and particularly researchers) to ‘soften up’ the system to their own ideas and proposals, and to act as brokers, negotiating amongst key stakeholders, on their own terms, or as part of research organisation (e.g. university or

academic network), think tank, or peak body's research wing, e.g. an environmental education association or special interest group. These channels are manifold, direct or indirect and demonstrated in several of the papers put together in this VSI (e.g. **Læssøe et. al 2013, Blewitt 2005**). In this, researchers (sometimes acting as policy entrepreneurs) draw on personal contacts and interactions to shape perceptions and understandings of policy production and critique, using social media, conferences and campaigns to try to influence policy, practice or change (such as that allied to the 2015 World Environmental Education Congress). Or they might even dust off old studies to show their continued relevance to a contemporary problem or possible solution to a policy, political impasse or priority ...

Our expectation then, rather self-consciously, is that in providing examples and commentary on such matters, the VSI and its editorial inspires renewed interest into the (at times, fickle) relationship between environmental and sustainability education and the dual worlds of possibility and tension that take place both within, and surrounding, their fields of policy and research. We also trust that in what is presented here, cognizant of both the strengths and weaknesses of the articles, that further engagement is prompted on two fronts. First, by those inside the field(s) looking to reimagine and reinvigorate policy research on ESE; but also by those that we believe that ESE research needs most: namely, those standing at the brink and looking in, offering different perspectives, ideas and expertise, and believing that the field's complex terrain of ideas, policy and practice are ripe for cross-fertilisation.

Roots and routes of ESE policy research

Since the inaugural issue of *Environmental Education Research* in 1995, contrasting views on how to understand, engage and use policy have become a mainstay of debate within the journal. Early frustrations over differences in research methods, goals and discourse embedded within studies of policy and policy-making have not dissipated over the years. But as the contributions to this VSI show, they have been softened by new perspectives on how ESE research and practice are caught in an ongoing dance with all things 'policy', and relatedly, 'political' – a set of plural and unstable rather than singular and fixed concepts if ever we needed reminding.

As Ozga and colleagues (2006, p.10) put it:

Questions about what knowledge is produced and legitimized, how it can be mobilized and used, and whose resource it is (i.e., for which communities it can be a collective resource) are critical not just because they sit at the heart of education research steering but also because they are fundamental to the practical politics of education research.

Of course, no field of practice or its research enjoys an unproblematic or stable relationship with Policy and policies (nor their politics either), especially when we consider broader concerns raised by educational research about policy cycles, policy-making frameworks and communities, and policy actors (see, for example, seminal contributions on curriculum, such

as Ball and Bowe 1992). Moreover, whether the relationship of ESE research to the topic of education/environment/sustainability policy resembles a dance macabre, an intimate tango, a ballet rehearsal, or more of a mosh pit frenzy, seems to be very much a matter of perspective and experience. So in this VSI, we hope to shed light on some of these impressions as well as the clarifications required, by tracing the particular moves afoot, so to speak, in some of the central debates illustrated in this selection from the journal.

In fact, throughout its volumes, it remains clear that the field that the journal addresses is a highly contentious, shifting and politically sensitive field of scholarship (see **Law and Baker 1997, Ashley 2000, Sund and Öhman 2014**). Not only do diverse understandings and foci for policy and policy perspectives form a central part of ESE research, these differences and divergences also act as leverage points for researchers, policy-makers and practitioners with non-coinciding perspectives on how the field(s) (and publications on the topic in academic journals) should develop, let alone be ‘steered’.

Kingdon (1984) and Neilson (2001) trace this kind of situation to the separation or integration of three distinct streams running through the policy arena: a *problem stream*, a *policy stream*, and a *political stream*. When these aren’t operating in isolation but in concert, i.e. a ‘policy window’ briefly opens, solutions can be coupled to problems and political opportunities, such as having Education, as Goal 4, of the Sustainable Development Goals. Equally, a solution can be offered by specialists in the policy stream to which there is no problem *per se*, while special interest groups and social movements through to politicians of various stripes may not have the power to craft, let alone, imagine or enact public policy for education, given such vagaries as the policy climate, policy cycles, democratic process, and policy (in)activism.

Such ‘policy windows’ can also be understood, with inspiration from Hardt and Negri’s *Empire* (2000) as ‘windows of opportunity’. These open up in an otherwise quite impermeable fabric of society and policy and make it possible, even for a brief moment, to push for change. Windows do not, however, remain open. They have a tendency to close, but as this VSI demonstrates, new ones always appear and offer possibilities that we have yet to imagine, or research.

A case in point - which we have already illustrated in switching between singular and plural - is the discussion embedded within disputes about ESE policy nomenclature. This can be seen to centre on the pre-existing and potential clash between competing ideologies and perspectives on the *environmental* and *sustainability* and *educational*, and their various combinations and framings. Down the years, this has occasionally led to harsh criticism in certain communities, particularly of the most recent newcomer, and if it has been sponsored by international rather than local bodies. Other criticisms have included to argue that ‘sustainable development’ is ‘oxymoronic’ conceptually and as global policy, or that ‘ecological sustainability’ or simply ‘sustainability’ are preferred anchors for localised environmental values as much as for cultural and political reasons. Or simply that sustainable development offers not just a series of potentials but also dangers to education and educators, particularly from an ecopedagogical perspective (see **Stables and Scott 2002, Stevenson 2006, Ferreira 2009, Kopnina 2012**). Arguably, the concept has also become something of a

Trojan horse to instrumentalist, neo-liberal economic agendas (see **Hursh et al. 2015**, Connolly 2013). But at the same time, such attacks have also been rebuffed by academics with a different worldview, position and self-critical understanding of the long-term possibility of using the sustainability concept in education, as well as to transform it (see **Bengtsson and Östman 2015**). The policy work required, it is argued, for a ‘sustainable education system’ is quite different from that required of an ‘education system for sustainability’ or a ‘system of education for sustainability’, but this isn’t always transparent when ‘strawmen’ are the targets.

To illustrate further, the UN Decade for ESD arrived in 2005 and marked a key shift in priorities for policy-making, practice development and research, even if it was also later dismissed at its conclusion as little more than fostering ‘business as usual’ (Huckle and Wals 2015). Be that as it may, for ten years, ‘Education for Sustainable Development’ (or some variation thereof) was a concept that could neither be ignored nor circumvented in ESE, and in the company of the aforementioned professors, was developed with a clear intent to impact educational policy around the world, and the world itself. It also had the effect of making sustainability and education a commonplace combination in the pages of this and other journals recording research and practice development (see Reid and Scott 2006), in research and development programmes more broadly, and in this and related fields elsewhere (e.g. Network 30 at ECER on ESE research, and Network 8 on research on health education) - however temporary or convenient some of these ‘marriages’ may have proven to be.

Discussions related to the shifting focus of the ESE field have also found echoes in those on the very purpose of having a research endeavour and community that deals with these issues, even as a subfield of education or environment more broadly, or tied to what can be regarded as an adjectival education, or other combination thereof. In Wales, for example, Education for Sustainable Development has been coupled with Global Citizenship, rather than under the sole banner of ESE – perhaps too, that will change (by separation or divorce?), or for that matter, other ‘polyamorous’ combinations could be suggested, e.g. regarding climate change education as a key component of environmental and sustainability education, and vice versa.

A key point amid this rhetorical and conceptual play though, comes from recognising that the adjectival format often suggests an almost activist problem-solving orientation to socially-produced and socially-embedded issues (Cox 1996). Ongoing discussion in this field has considered whether ESE researchers should primarily adopt an activist stance too (see **Blewitt 2005**, **Rudsberg and Öhman 2010**, **Mogensen and Schnack 2010**, **Stables 1998**). As in other fields, such debate rages over how far ‘we/I/they/one’ should - or should not - take the level of instrumentalism that this position so easily harbours, even under the guise of a critical approach. Is there a special responsibility of education to push for a certain development shaped by ideals and/or policies? Likewise, must *education* research be *educational* research and *educative* research too – always, everywhere ... who by, how, why? The debate has been fierce, and continues, particularly in relation to configuring and possibly reconfiguring ‘education’s response’ to climate change (**Læssøe et al. 2013**). In fact, ESE and its policy research, it has been argued, deal with incredibly important questions: of how we as human beings understand and engage with the environment, climate, and all levels and relations in

between – even if it can fail to do so sufficiently and effectively (**Stables and Scott 2002, Ferreira 2009, Kopnina 2012**).

Some scholarly policy inquiries, with their various strategies, tactics and heuristics in this space though, might seem to suggest there are few barriers, even as they remain enmeshed in a political maelstrom. On the one hand, there are international environmental and sustainability-related summits that rarely deliver in practice; on the other, national policy struggles to boost and direct economic growth; and to create a multi-handed beast, yet more considerations, including sincere hopes that through lifelong learning policies and practice, children and adults might actually learn something valuable along the way about the/our/others' environment (and/or sustainability). In the midst of this we find some researchers questioning the purpose of their existence and practice, if not 'impact' personally, and of their work, if not that of their colleagues, in policy circles (see **Van Poeck et al. 2014**).

Returning to Lingard (2013, p.119), the possible and actual uses and abuses of research in education policy shouldn't be ignored here. These range from giving too much weight to one role over another in the policy-research-practice nexus: of research as rationale, justification, ammunition or legitimation of a particular policy direction, or for that matter, in offering a certain vocabulary, grammar and discourse for the ideas and words to be used in the policy domain. Elsewhere, Shulha and Cousins (1997) acknowledge the possibility of the 'justified non-use' of findings and outcomes, if not their 'mischievous use', alongside examples of 'misevaluation' in the first place owing to poor quality outcomes, and 'abuse' through the suppression of potentially useful and high-quality findings. Again, drawing on Orland (2009, p. 118), Lingard notes:

To the extent it is relied on at all, educational research is much more likely to be paid attention to by educational policy leaders when it buttresses arguments about particular policy directions or prescriptions *already* being advocated, thus furthering a particular political/policy position. It is research as ammunition not as knowledge discovery.

A sense of this uneasy friction between research and policy can be found at the very core of many of the articles brought together in this VSI (e.g. **Rudsberg and Öhman 2010, Bengtsson and Östman 2015, Stevenson 2006, Sund and Öhman 2014**). Yet we also anticipate that a rich research field of ESE will never overcome this apparent friction, as it also proves a most productive of grist for activity and further research. As Nutley et al. (2007) put it, there are a number of barriers and enablers to the use of research in policy that can be clustered into four groups (see Box 1).

In general, these highlight the need for reflexive research communities, including their members and critical friends, to give careful attention to:

- the nature of the research;
- the personal characteristics of the researchers and potential research users;
- the links between research and its users;
- the context for the use of research.

History as the new New?

These considerations, of course, are another way of saying that an overly rosy view of the nexus isn't actually that desirable. For a start, it risks being ahistorical, apolitical and uncritical of key features of policy activity, such as the workings of policy communities, advocacy coalitions, epistemic communities, and issues networks in shaping policy and research (Nutley et al. 2007, pp. 106-8). In fact, a critical sense of a field's history is often the first (of many a) victim in the busy life of a researcher. As we have found with our own struggles to hang onto a credible sense of a research field, producing new work and even gaining a workable understanding of some of the many neighbouring fields (while also dealing with the more mundane aspects of meeting up with real world human researchers and having an informed and informative discussion) - these simply remain arduous tasks. Who really wants to sit down and thump through the back catalogue of a research journal?

A recurrent critique though that can be discovered in doing so with *Environmental Education Research*, is that within the ESE field, it is dangerous to predict the Future based on what the Past - and even worse, what the Now - seem to insist on, particularly if this is interpreted as suggesting the only possibility for policy development. Our first of many cautions arising from such efforts on our own part, is: one should not race towards a particular future, while staring into a particular past, particularly given the blinkers of one's own past as a policy researcher. However, as individual and collaborating researchers, we also risk being barred access to both the past and the future if we do not spend time (and with others) discovering as well as re-discovering the history of any research field, and perspectives on that and its complexities, certainties and ambiguities, whatever their fluidity too.

For example, looking into the archives, the trend of producing (mono-disciplinary) research that tells us nothing (much) new about transdisciplinary problems and polyvocal debates, whilst at the same time, resembling (though its logic, methods and conclusions), work done 15-20 years ago, hasn't seriously abated. It remains, however, an important task of any research community to challenge such trends, while also developing a better and shared understanding of a field's past and priorities, as these remain effective tools that enable its furtherance (Reid and Payne 2013).

This is also because the history of any academic field of study is neither static nor stable, and in order to navigate diverse perspectives on what we can learn from its past and its history, we will need to maintain familiarity with the important work and workers that have been published within a field and in a range of outlets over time. In this, re-interpretation is more appropriate than translation, suggest Lauen and Tyson (2009) for policy research, especially when we engage with new projects and ideas *about* and *for* policy, building upon, and challenging, the socially embedded intelligence that a field's collective memory represents.

We do not, however, need to discover everything (new) ourselves, particularly if the time frame for policy (and knowledge to inform and shape that) is 'time sensitive'. We can enjoy the benefits of the hard work of past and new generations of researchers, particularly through their meta-analysis and synthesis work (e.g. **Aikens et al. 2016**, Rickinson and Reid 2015),

even as we remain mindful of another caution, well illustrated in the work of **Læssøe et al. (2013)**, and expressed concisely by Nutley et al. (2007, p. 37):

The same body of research may be seen and used very differently by different policy actors within the policy environment; and different groups may manage and fund research in order to use it for their own ends.

So it would be a pity not to find ways, such as through VSIs, to remain open to a carefully conceived possibility of cross-fertilisation – of new research processes and approaches drawing on critical perspectives both *from* and *upon* the work already present within the ESE research field. Indeed, it is impossible to truly move forward without an acute sense of history and how contributions to that act as its ‘veins’, if not its ‘lifeblood’. In fact, the ambition of any researcher within any field, we might argue, should be to go beyond producing the predictable ‘new’, beating the poor old horse of well-proven methods and conclusions. Rather: aim higher! Aim for the new New! Novel and potentially influential path-breaking ideas are always in vogue. As Alvesson and Sandberg (2014) suggest, a powerful route to these is through reflexive and collective examination of the field: unpacking and challenging the basic assumptions that underpin existing research programmes, and in this case, also with policy processes and their literatures in mind. And with the papers in this VSI, this should offer a good platform to begin or continue this activity on ESE policy research?

Jumping the fences of research fields

Finally for this introduction, and in relation to the role of educational research in particular, we turn to Jill Blackmore’s comments, and an attempt to resist an inevitable fate ascribed to particular approaches within a performative context for research. Jill Blackmore (2003, p. 1) has asked somewhat rhetorically and largely in relation to feminist approaches, is their role to be that of ‘policy service, policy critique, technical expert or public intellectual?’ Such questions can avoid receiving either-or responses by advancing one that seeks to combine them, that is, in ways that are always already sensitive to the particular policy question or priority or problem in mind. Then it is possible to see ESE policy research as not just a generalised body of activity responding to abstracted questions, but rather as having a range of direct and indirect, immediate and delayed effects on policies, policy-making and policy actors – some of whom, of course, may be researchers, practitioners or members of policy networks and communities.

However, as floated above and in our other introduction to this VSI for the ECER conference, ESE policy researchers may have an acute lack of will to limit the scope and reach of their work, for a variety of reasons. No area of the social and more-than-social seems to scare off the most intrepid ESE researcher with global(ised) convictions and impact so apparently in reach. Such a situation not only makes for a dynamic and intriguing research field, it also leads to a plethora of different methodologies, theories, epistemologies and ontologies being sucked in to its activities, often in the name of interdisciplinary or transdisciplinary activity. The borders of the field remain fuzzy, with researchers happily moving between and across

this and other fields, roles, positions and logics – normative, pluralistic and otherwise. This tendency can be applauded to some extent, even as the risk of any emerging vampiric analogy which might also be quickly dispatched. The field of ESE remains strong and vibrant, but is its strength that of insisting on or resisting, an unbridled ‘lust’ or ‘promiscuity’ of idea(l)s?

Contributions to this VSI recognise the reality of this tricky possibility: of an ‘endarkenment’ as much as ‘enlightenment’ of public policy, so to speak (Weiss 1979). It also offers an open and active invitation to researchers from other fields who might find the perspectives within ESE and its research alluring, if not hard to resist. But can that be to not simply ‘perform’ or ‘colonise’ without interaction and enlivening on both sides? In fact, by focusing on policy research and the quarrels it brings about in relation to ESE, some might hope that a VSI both lures and frightens researchers in neighbouring fields with its ongoing struggles, no matter what the particular educational policy terrain to hand.

Citation analysis is one way of exploring this, as for some years now, it has been clear that researchers of ESE have imported ideas, concepts and methodologies quite widely from other researchers, research fields and research programmes, usually carefully, but sometimes imprudently. The deep tool boxes of philosophy, sociology, psychology, and anthropology, for example – including how these relate to notions of knowledge quality, transfer and mobilization – have been raided over and over again by bands of education researchers wanting to apply the latest or most fashionable ideas to the most pressing questions, conceptually and empirically, linked to environment, sustainability and education. Critique often follows shortly thereafter. Hence our interest in organising the contributing papers for this VSI into groupings that reflect this introduction’s key themes, as follows:

- A contentious and politically sensitive field of scholarship
- What’s in a name? Questioning the purposes of ESE in policy and practice
- ESE as problem solver? Solution-oriented research, policy and practice
- At the crossroads of research, policymaking and practice: changing roles and positions of ESE policy researchers.

Continuing to witness through the pages of a research journal how such themes relate to general perspectives on education, society, and politics, if not how we deal with this planet, suggests to us that the time has also come for ESE researchers to be more willing to share their own treasure chest and actively engage with the fields that they borrow from. This returns us to questions of policy and education and transition once more, that we deal with further in the editorial. But also to those aforementioned foundational disciplines where insights from the ESE field seem to be more in demand, particularly as issues such as climate change, environmental crisis and regimes of neo-liberal education, continue to draw increasing attention in research and policy communities.

Just imagine what a follow-up VSI could look like in a decade or so ...

References

- Aikens, K., McKenzie, M. and Vaughter, P.** (2016) Environmental and sustainability education policy research: A review of geographic and thematic trends over time, *Environmental Education Research*, in press.
- Alvesson, M. and Sandberg, J. (2014) Problematization meets mystery creation: generating new ideas and findings through assumption challenging research. In: E. Jeanes and T. Huzzard (eds.), *Critical Management Research: Reflections from the field* (pp. 23-41). London: Sage.
- Ashley, M.** (2000) Science: An unreliable friend to environmental education?, *Environmental Education Research*, 6:3, 269-280.
- Ball, S. and Bowe, R. (1992) Subject departments and the 'implementation' of National Curriculum policy: an overview of the issues, *Journal of Curriculum Studies*, 24:2, 97-115.
- Ball, S. and Exley, S. (2010) Making policy with 'good ideas': policy networks and the 'intellectuals' of New Labour, *Journal of Education Policy*, 25:2, 151-169.
- Bengtsson, S. and Östman, L.** (2015) Globalisation and education for sustainable development: exploring the global in motion, *Environmental Education Research*, online first. DOI: 10.1080/13504622.2014.989960
- Biesta, G. (2012) Becoming world-wise: an educational perspective on the rhetorical curriculum, *Journal of Curriculum Studies*, 44:6, 815-826.
- Blackmore, J. (2003). Tracking the nomadic life of the educational researcher: What future for feminist public intellectuals and the performative university? *Australian Educational Researcher*, 30:3, 1-24.
- Blewitt, J.** (2005) Education for sustainable development, governmentality and Learning to Last, *Environmental Education Research*, 11:2, 173-185.
- Connolly, W. (2013) *The Fragility of Things: Self-organizing processes, neoliberal fantasies, and democratic activism*. Durham: Duke University Press.
- Cox, R. (1996) *Approaches to World Order*. Cambridge: Cambridge University Press.
- Ferreira, J.** (2009) Unsettling orthodoxies: education for the environment/for sustainability, *Environmental Education Research*, 15:5, 607-620.
- Gordon, I., Lewis, J. and Young, R. (1977) Perspectives on policy analysis. *Public Administration Bulletin*, 25, 26-35.
- Hardt, M. and Negri, A. (2000) *Empire*. Cambridge: Harvard University Press.
- Hawkey, K. (2014) A new look at big history. *Journal of Curriculum Studies*, 46:2, 163-179.
- Hursh, D., Henderson, J. and Greenwood, D.** (eds.) (2015) Environmental Education in a neoliberal climate, *Environmental Education Research*, 21:3. Special Issue.
- Kingdon, J. (1984) *Agendas, Alternatives and Public Policy*. Boston: Little Brown.

- Kopnina, H.** (2012) Education for sustainable development (ESD): the turn away from 'environment' in environmental education?, *Environmental Education Research*, 18:5, 699-717.
- Læssøe, J., Feinstein, N. and Blum, N.** (2013) Environmental education policy research – challenges and ways research might cope with them, *Environmental Education Research*, 19:2, 231-242.
- Lauen, D.L. and Tyson, K. (2009). Perspectives from the disciplines: Sociological contributions to educational policy research and debates. In: G. Sykes, B. Schneider and D.N. Plank (eds.), *Handbook of Education Policy Research* (pp. 71-82). New York: Routledge.
- Law, B. and Baker, R.** (1997) A Case Study of Dilemmas and Tensions: the writing and consultation process involved in developing a national guideline document for environmental education, *Environmental Education Research*, 3:2, 225-232.
- Lingard, B. (2013) The impact of research on education policy in an era of evidence-based policy, *Critical Studies in Education*, 54:2, 113-131.
- McKenzie, M., Bieler, A. and McNeil, R.** (2015) Education policy mobility: reimagining sustainability in neoliberal times, *Environmental Education Research*, 21:3, 319-337.
- Mogensen, F. and Schnack, K.** (2010) The action competence approach and the 'new' discourses of education for sustainable development, competence and quality criteria, *Environmental Education Research*, 16:1, 59-74.
- Neilson, S. (2001) *IDRC supported research and its influence on public policy: knowledge utilization and public policy processes: a literature review*. Ottawa: International Development Research Centre.
- Nutley, S., Walter, I. and Davies, H.T.O. (2007) *Using evidence: How research can inform public service*. Bristol: The Policy Press.
- Orland, M. (2009). Separate orbits: The distinctive worlds of educational research and policymaking. In: G. Sykes, B. Schneider, D. Plank and T. Ford (eds.), *Handbook of Education Policy Research* (pp. 113-128). New York: Routledge.
- Ozga, J. (2007) Knowledge and policy: research and knowledge transfer, *Critical Studies in Education*, 48:1, 63-78.
- Ozga, J., Popkewitz, T. and Seddon, T. (eds.) (2006) *Education Research and Policy: Steering the knowledge-based economy*. London: RoutledgeFalmer.
- Reid, A. (ed.) (2015) Curriculum Challenges for and from Environmental Education, *Journal of Curriculum Studies*, VSI. <http://explore.tandfonline.com/content/ed/jcs-vsi-2015>
- Reid, A. and Payne, P. (2013) Handbooks of environmental education research: For further reading and writing. In: R.B. Stevenson, M. Brody, J. Dillon and A.E.J. Wals, (eds.), *International Handbook of Research on Environmental Education* (pp. 529-541). New York: Routledge.

- Reid, A. and Scott, W. (2006) Researching education and the environment: retrospect and prospect, *Environmental Education Research*, 12:3-4, 571-587.
- Rickinson, M. and Reid, A. (2015) Synthesis of research in higher education for sustainable development. In M. Barth, G. Michelsen, M. Rieckmann and I.G. Thomas (eds.) *Routledge Handbook of Higher Education for Sustainable Development* (pp. 142-160). London: Routledge.
- Rudsberg, K. and Öhman, J.** (2010) Pluralism in practice – experiences from Swedish evaluation, school development and research, *Environmental Education Research*, 16:1, 95-111.
- Saunders, L. (ed.) (2007) *Educational Research and Policy Making: Exploring the border country between research and policy*. London: Routledge.
- Shulha, L. and Cousins, J. (1997) Evaluation use: theory, research and practice since 1986, *Evaluation Practice*, 18:3, 195-208.
- Stables, A.** (1998) Environmental Literacy: functional, cultural, critical. The case of the SCAA guidelines, *Environmental Education Research*, 4:2, 155-164.
- Stables, A. and Scott, W.** (2002) The Quest for Holism in Education for Sustainable Development, *Environmental Education Research*, 8:1, 53-60.
- Stevenson, R.B.** (2006) Tensions and transitions in policy discourse: recontextualizing a decontextualized EE/ESD debate, *Environmental Education Research*, 12:3-4, 277-290.
- Sund, J. and Öhman, J.** (2014) On the need to repoliticise environmental and sustainability education: rethinking the postpolitical consensus, *Environmental Education Research*, 20:5, 639-659.
- Van Poeck, K., Vandenabeele, J. and Bruyninckx, H.** (2014) Taking stock of the UN Decade of education for sustainable development: the policy-making process in Flanders, *Environmental Education Research*, 20:5, 695-717.
- Weiss, C. (1979) The many meanings of research utilization, *Public Administration Review*, 39:5, 426-31.
- Weiss, C. (1999) The interface between evaluation and public policy, *Evaluation*, 5:4, 468-86.

Box 1 - Barriers and enablers to the use of research (Extended quote adapted from Nutley et al. 2007, pp.81-3)

The nature of the research

Research is more likely to be used that:

- is high quality and comes from a credible source;
- provides clear and uncontested findings;
- has been commissioned, or carries high-level political support;
- is aligned with local priorities, needs and contexts;
- is timely and relevant to policy makers' and practitioners' requirements;
- is presented in a 'user-friendly' way – concise, jargon-free and visually appealing.

The personal characteristics of researchers and potential research users

- Policy makers and practitioners with higher levels of education or some experience of research are more likely to be research users.
- Lack of skills to interpret and appraise research can inhibit research use.
- Some individuals may be hostile towards the use of research, or to research more generally.
- Researchers may lack the knowledge and skills to engage effectively in dissemination and research use activities.

The links between research and its users

- Research use may be inhibited where policy makers and practitioners have limited access to research.
- Knowledge brokers – both individuals and agencies – can play an effective 'bridging' role between research and its potential users.
- Direct links between researchers and policy makers or practitioners also support research use. Face-to-face interactions and two-way exchanges of information are most likely to encourage the use of research.

The context for the use of research

Context plays a key role in shaping the uptake of research.

- In policy contexts, research is more likely to be used where:
 - *it is aligned with current ideology and individual and agency interests;*
 - *its findings fit with existing ways of thinking or acting or with other information within the policy environment;*
 - *open political systems exist;*
 - *institutions and structures bring researchers and policy makers into contact;*
 - *at a local level, an organisational culture exists that is broadly supportive of evidence use.*
- In practice contexts, local organisational, structural and cultural issues may limit the use of research, for example:
 - *lack of time to read research;*
 - *lack of autonomy to implement the findings from research;*
 - *lack of support – financial, administrative and personal – to develop research-based practice change;*
 - *local cultural resistance to research and its use.*
- In research contexts, a number of barriers inhibit the flow of findings to policy makers and practitioners:
 - *lack of incentive or reward for engaging in dissemination and research use activities;*
 - *high value placed on traditional academic journal publications at the expense of 'user-friendly' research outputs;*
 - *lack of time and financial resources for research use activities;*
 - *a set of attitudes among some academic researchers that dissemination is not part of their role.*