lifewide magazine

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Learning to sustain ourselves and the world

Commissioning Editor: Norman Jackson

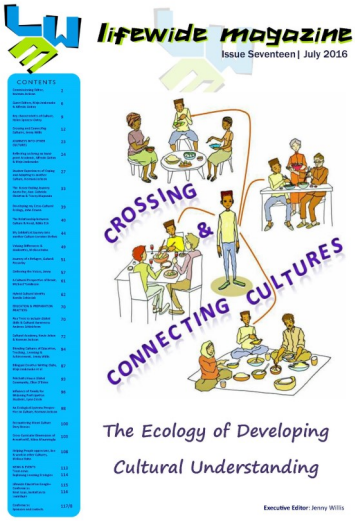
Executive Editor: Jenny Willis

Happy 20th Birthday, Lifewide Magazine!

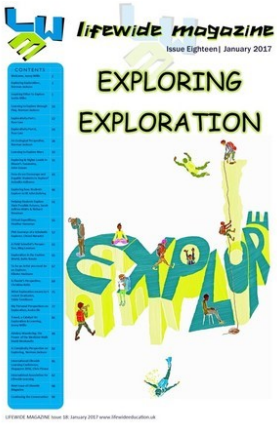
Executive Editor, Jenny Willis

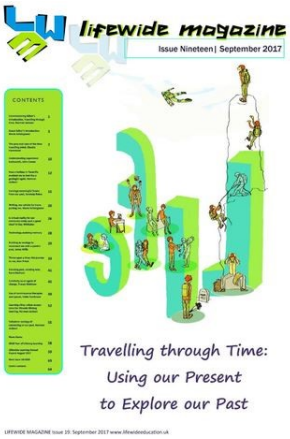
This edition of Lifewide Magazine marks an incredible milestone for us: our twentieth issue over the 7 years since Norman Jackson launched Lifewide Education and the magazine that is a central element of the project. I am sure all our readers will want to join me in congratulating Norman on this amazing achievement. Without his passion and vision, we could not have sustained the novelty of each theme we have tackled; without the contribution of our guest editors and writers, we would not have made such advances in our conceptualisation of so many dimensions of lifewide learning. And, of course, without you, the readers, we would have had no sense of purpose in our endeavours to push the boundaries of knowledge and to grow our community.

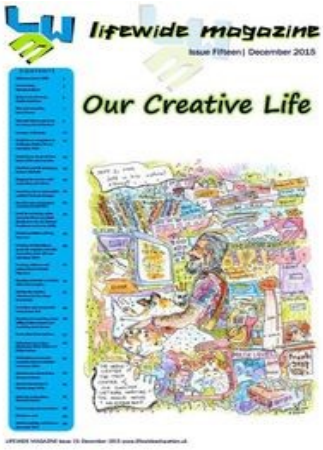
Let's remind ourselves just how far we have come since that first, modest, 7-page newsletter (as it was then) in November 2011. By 2016, we had expanded to a whopping 118 pages. Our style had evolved to include the mesmerising artwork of Kiboko Hachiyon.



All of our previous editions can be downloaded free of charge from www.lifewideeducation.uk, but here are some of my personal favourite front pages.







I am very much looking forward to the next 20 issues and more!

Happy birthday, Lifewide Magazine!

Commissioning Editor's Introduction

Norman Jackson

To sustain something is to strengthen, develop, support or fix it to enable it to keep going and we can apply the idea to anything – an idea, object, machine, enterprise, organisms and their living and flourishing, ecosystem or the whole world. Our focus in this issue of the magazine is on the ideas of learning to sustain ourselves – our living and our flourishing, and learning to sustain our environment for the generations of people who will come after us. Our intention is to explore how these two ideals might be productively combined through education and lifewide learning.

The concept of sustainability in the context of a maintaining healthy Earth emerged in the early 1980's when Lester Brown the founder of the Worldwatch Institute argued we have a responsibility to pass on to our children and grandchildren a world as healthy and with as many opportunities as we inherited. The idea of 'sustainable development' was first used in a report by the World Commission on Environment and Development in 1987[1] framing the idea in these terms, *'humankind has the ability to achieve sustainable development to meet the needs of the present without compromising the ability of future generations to meet their own needs'.*

The Brundtland Report[1] stated that critical global environmental problems were primarily the result of the enormous poverty of the South and the non-sustainable patterns of consumption and production in the North. It called for a strategy that united development and the environment – described by the now-common term «sustainable development>> In 1989, the report was debated in the UN General Assembly, which decided to organize a UN Conference on Environment and Development.

Sustaining anything as complex as the world and all its ecosystems and inhabitants is the most complex and profound of all 'wicked problems'[2] The Earth and all the systems of life it supports is complex. Left to its own devices it will, given sufficient time, adapt and regenerate regardless of the forces it is subject to. It might take millions of years but that is the time scale of planetary renewal.

Figure 1 Characteristics of wicked problems (source -see image credit)

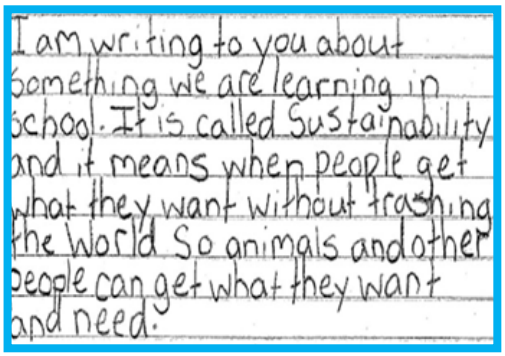
But human beings have not left the Earth alone. Ever since we came into existence we have interfered with our environment to make it more hospitable and accommodating of our needs and desires. But these acts of interaction and interference have now caught up with us and in the Anthropocene – the latest geological epoch framed by humans we are witnessing the emergence of conditions that are harmful to our very existence and to the sustainability of the planet as we know it. Earth's biological and social systems are increasingly stressed through the many demands a rapidly increasing population make on it.

Many of the resources we depend on are finite - when they are gone they will not be replenished. Natural and man-made disasters drive population movements on scales that destabilize societies. Human activity is changing the physical environment beyond all recognition and altering the climate in ways that will cause even more instability. The only thing that is certain is that we have created a future that is even less certain for our children and grandchildren. This state of being at the edge of chaos provides the context for our exploration of how we might use education as the means to educate a world into a more sustainable and more stable future.

'we are truly living in a very unique time in the history of our civilization, facing several simultaneous challenges and converging crises: a deteriorating environment, a very unequal distribution of dwindling resources, widespread poverty, wars, climate change, oppression of many peoples, and dissatisfaction with life even in those countries with a surplus of material wealth. How did we get into this mess? What are we to make of all this? Do things have to be this way? Why is this happening to us? What can we do about it?' ***Daniel Christian Wahl 'Design for sustainability PhD'***[2]

One thing has become abundantly clear, sustaining mankind and our planet cannot be achieved by technological solutions, political regulation or financial instruments alone. We need to change the way people think and act but changing the way a global society thinks and acts in order to sustain the Earth which supports all our ecosystems, not just the ones we inhabit!, is a huge challenge and a key moral purpose for the world's education systems. A number of articles in this issue reveal the nature of this 'global wicked problem'[2,3] and how world leaders and oganisations are trying to lead us into doing something about it – all are agreed that education is central to developing global awareness of the issues and changing behaviours in ways that help tackle the multitude of related problems.

The UK Government's Chief Scientific Advisor Prof Sir John Beddington has raised the prospect of a "Perfect Storm" of global dimensions by 2030, with the impacts of global challenges such as climate change, food, energy and water security coming together to significantly impact on the lives of all people on earth. This prospect invites a response from researchers and educators alike to find solutions for a more sustainable society.


I am writing to you about something we are learning in school. It is called Sustainability and it means when people get what they want without trashing the world So animals and other people can get what they want and need.

Our priority in this issue of the magazine is to develop awareness and deeper understandings of this important issue so that we can begin to explore the ways in which concepts and practices of lifewide learning and ecological perspectives on learning might contribute to the educational moral purpose of helping people sustain themselves through long and often disrupted learning lives while sustaining the environment they inhabit for future generations.

Lifewide learning and education encourage a holistic approach to learning and personal development and view learning as an ecological phenomenon. They encourage learners to appreciate themselves as actors in and on the world, to appreciate the resources they draw upon and consume in order to learn and achieve the things they value, and to recognize and value the effects the world has on them. Understanding the ideas of ecology, development, sustainability and resilience in a fast changing and disruptive world are therefore key concepts for the lifewide learner and for educators and institutions who encourage and facilitate such learning.

Global & Political Imperative

Sustainable development is the political global project born in our era in which global leaders are attempting to galvanise the world in coordinated action to secure the future for mankind and all life on the planet. The UN Decade of Education for Sustainable Development (2005-2014)[4] initiated the process of educating the planet for a different future. The 2030 Agenda for Sustainable Development[5] provides new impetus for Education for Sustainable Development (ESD). This issue of the magazine coincides with publication of an important UNESCO report 'Issues and trends in Education for Sustainable Development'[6] which provides an overview of the challenge and an important context for our own contributions. In fact, ESD is very much a product of policy-makers and policy-drivers at the global, national and institutional levels. Such policy driven activity reflects the importance that global leaders place on changing the world's educational ecosystem s to support the enterprise to educate and persuade the whole of humanity that we have to takeseriously the threat of destroying our own existence as a species through the progressive modification, degradation and destruction of our environment. To comprehend the urgency, global scale and complexity of this challenge just dip into the book of infographics produced by the Nederlands Environmental Assessment Agency[7].

Education for Sustainable Development (ESD)

(ESD) is commonly understood as education that encourages changes in knowledge, skills, values and attitudes to enable a more sustainable and just society for all. ESD aims to empower and equip current and future generations to meet their needs using a balanced and integrated approach to the economic, social and environmental dimensions of sustainable development (UNESCO).

This requires quality education and learning for sustainable development at all levels and in all social contexts including Higher Education. It means including key sustainable development issues and goals into teaching and learning practices. For example, learners should be made aware of such issues as poverty alleviation, peace, ethics, responsibility in local and global contexts, democracy and governance, justice, security, human rights, health, gender equity, cultural diversity, rural and urban development, economy, production and consumption patterns, corporate responsibility, environmental protection, natural resource management and biological and landscape diversity.

ESD means viewing our educational institutions and systems as living dynamic eco-social systems dedicated to the formation and development of knowledge and the encouragement and support of people's learning so that both individuals and the societal ecosystem as a whole cannot only be sustained but flourish.

ESD requires participatory teaching and learning methods that motivate and empower learners to change their behaviour and take action for sustainable development.

- Human sustainability in teaching: includes elements such as resilience, wellbeing, emotional intelligence and the role of personality and gender as a teacher
- Educational sustainability: comprehends open pedagogies, our legacy as a teacher, engagement with communities and society, and lifelong and lifewide learning (including digital capacity)
- Social and environmental education: gathers these issues within each ecological environment and with reference to our contribution to society as educators

2030 Agenda for Sustainable Development

GOAL 4 target 4.7

"By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through Education for Sustainable Development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development"

Lifewide and ecological perspectives on sustaining people and their environments

Lifewide education encourages a more ecological approach to learning with the goal of enabling learners to develop themselves through all their experiences while at university so that they can sustain themselves through a lifetime of dealing with challenges and disruptions that they cannot begin to imagine[8]. Ultimately, universities have a moral responsibility to not just prepare learners for entry to the job market, they must enable learners to prepare themselves for the rest of their lives. Lifewide Education believes that adopting an educational approach that embraces the idea that a person's learning and development is an ecological phenomenon involving themselves as whole creative beings interacting with their material and non-material world, provides a productive way of engaging with the ESD agenda. It aligns well with Daniel Wahl's proposition[2]:

'It is time for designers — and all humans are designers to some extent — to think out of the box and assume responsibility of the effects or their actions'

Quality Education For All is one of the Sustainable Development Goals but how does it relate to/engage with the other 16 SDGs?

1. No poverty
2. Zero hunger
3. Good health and well-being
4. Quality education
5. Gender equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry, innovation and infrastructure
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate action
14. Life below water
15. Life on land
16. Peace, justice and strong institutions
17. Partnerships for the goals.

Perhaps this begins in primary school when young learners are introduced to ecology of the natural world through an imaginative ecological education[9] and continues through secondary school as pupils discuss and develop an appreciation of issues relating to sustainability and participate in their personal projects around the theme of sustainability. In tertiary education, learners might explore sustainability issues relevant to their discipline but they might also be encouraged to see learning and practice through an ecological paradigm. Embracing the lifewide dimension of learning, development and action will provide learners with the maximum affordance for engaging with the world and for developing, through their interactions the knowledge, values and attitudes necessary to sustain themselves and the world. We hope you find value in the curated collection of writers and articles we have brought together to begin our own exploration of this topic to inform our ideas and practices of lifewide learning and education.

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Image credits Figure 1 Facing complexity: wicked design problems
https://medium.com/age-of-awareness/facing-complexity-wicked-design-problems-ee8c71618966
Original source: CMU Transition Design, Irwin & Kossoff
http://confluenceintl.com/sustainable-development/

Sustainability – Designing for a Constellation of 'Wicked' Problems

Daniel Christian Wahl

Daniel is an international consultant and educator specialising in biologically-inspired whole systems design and transformative innovation. He is a biologist (University of Edinburgh and University of California), holds an MSc in Holistic Science (Schumacher College) and a PhD in Design (CSND, University of Dundee, 2006). He has worked with local and national governments on foresight and futures, facilitated seminars on sustainable development for the UNITAR affiliated training centre CIFAL Scotland, consulted companies like Camper, Ecover and Lush on sustainable innovation, and has co-authored and taught sustainability training courses for Gaia Education, LEAD International and various universities and design schools. He is a member of the International Futures Forum, a fellow of the Royal Society of the Arts (FRSA), co-founder of Biomimicry Iberia, and brought Bioneers to Europe in 2010. Daniel currently works for Gaia Education and the SMART UIB project of the Universidad de las Islas Balears. Triarchy Press published his first book, Designing Regenerative Cultures, in 2016.

'It is time for designers — and all humans are designers to some extent — to think out of the box and assume responsibility of the effects or their actions'

In his seminal article 'Wicked Problems in Design Thinking', Richard Buchanan emphasized that designers often engage in conceiving and planning "what does not yet exist, and this occurs in the context of indeterminacy of wicked problems"[1:17]. He calls design thinking the "new liberal art of technological culture"[1:3] and points towards its potential in integrating the knowledge of the natural, social and humanistic sciences into adequate solutions to the wicked problems of design.

Based on the work of Horst Rittel in the 1960s [2,3], Buchanan suggests that most of the problems faced by designers are such wicked problems, defined by Rittel as "a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications of the whole system are thoroughly confusing"[1:14]

I would expand that definition to include not only social system problems in isolation, but also the problems associated with the reciprocal effects between social systems and natural systems that provide the basis for their existence. Since the only true constant in natural process is change, social and ecological manifestations of this process are also subject to constant transformation and adaptation.

> Wicked Problems
> "a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications of the whole system are thoroughly confusing"[1:14] I would expand that definition to include… the problems associated with the reciprocal effects between social systems and natural systems that provide the basis for their existence.

Sustainability will therefore have to be based on a constant process of locally adapted, community based learning. Both, how we think about and relate to reality, as well as the resulting social and ecological interactions and relationships we engage in are aspects that need to be addressed when dealing with the wicked problems of design. In other words, wicked problems are real world problems that acknowledge the complex interdependence of diverse factors and stakeholders, rather than simplistic, linear cause and effect abstractions that isolate the product of design from its context.

When we face up to the magnificent complexity of the natural processes that contains culture and all human design, and begin to search for the appropriate and sustainable way to participate in such complexity, all design decisions are recognized as wicked problems. While Rittel may initially have used the term wicked problems mainly in the context of human social systems, it is necessary to extend this terminology from how humans relate with each other to include how they relate to natural processes and the wider community of life.

Figure 1 Visual summary of the complexity of wicked problems. (Source: CMU Transition Design, Irwin & Kossoff based on Rittle & Webber[3])

To do so effectively we have to also acknowledge that different epistemological and ontological positions may frame a different view of the wicked problems we face. While different worldviews and value-systems may lead people to argue from seemingly opposing positions, the most appropriate strategy to respond to wicked problems is to aim for integral solutions that transcend and include a wide variety of different perspectives. Richard Coyne recently reviewed a number of different intellectual positions influencing design, in 'Wicked problems revisited'[4].

Wicked problems persist and are subject to redefinition and resolution in different ways over time. Wicked problems are not objectively given but their formulation already depends on the viewpoint of those presenting them. There is no ultimate test of the validity of solutions to a wicked problem. The testing of solutions takes place in some practical context, and the solutions are not easily undone.[4:6]

Among the emerging holistic sciences, the theory of complex dynamic systems has come furthest in providing an appropriate metaphorical framework that can be used to gain a deeper understanding of the wickedly complex dynamics of richly connected systems. Any system with more than three interacting variables is such a complex system. All of them are characterized by fundamental unpredictability and uncontrollability beyond a very limited temporal and spatial scale.

Later, I will discuss the extent to which sustainable design can be informed, in part, by a theoretical foundation provided by the holistic sciences. At this point the issue is simply to recognize that some design practitioners and theorists are beginning to explore how design can proceed in full recognition of unpredictability and uncontrollability in a wickedly complex and fundamentally interconnected context [5,6]

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Identifying design as the activity that structures experience and expresses human intention through interactions and relationships, both materially and immaterially, can help us to become more conscious of the effects of our actions. It also emphasizes the omni-presence of either conscious or un-aware design in everything we do. Such an understanding can provide a point of departure from which we can begin the long process of learning how to participate appropriately in the natural processes that maintain the health of the biosphere and therefore are preconditions for a sustainable human culture. Design has both the power and responsibility of shaping the future experiences of humanity.

The German design theoretician Professor Wolfgang Jonas suggested a "new role for design: more modest and more arrogant" in response to being faced with "the paradox situation of increasing manipulative power through science and technology and, at the same time, decreasing prognostic control of its social consequences"[5].

My response: "More arrogant, as we expand the concept of design to encompass all human decision making and action and thereby recognize its creative power … ; and more modest, in the sense that we abandon the arrogance of believing that human ingenuity empowered by science and technology, will provide designers with the tools to fix even the gravest mistakes. Lost cultures and lost ecosystems are gone forever, plutonium stays carcinogenic for 40,000 years, lost topsoil takes millennia to regenerate….., and changes in the atmospheric composition affect climate patterns for millions of years"[6].

Jonas suggests that faced with unpredictability and uncontrollability design needs to fully accept the limits of the knowable and "instead of expanding the islands of apparent scientific rationality (which frequently turn out to be unsafe), we [need to] cross the border from knowing to not-knowing. And, on this side of the border, we can determine (with scientific underpinning!) the areas of safe non-predictability"[5].

To give an example: While it is impossible to predict at what atmospheric concentration of CO2 the associated climate change would make the planet uninhabitable for human beings, a reasonable estimate for an island of safe non-predictability would be to reduce emissions to stabilize concentrations at less than twice those observed prior to the Industrial Revolution [sic. 2017: I have learned a lot since and am now convinced that we can return to preindustrial ppm of CO2 in the Atmosphere in less than 70 years if we apply Project Drawdown techniques and a general bio-sequestration, soil remediation and reforestation programme adapted to local conditions everywhere … see also oxalate assisted carbon burial].

In a recent paper presented at the European Academy of Design Conference on Design System Evolution in Bremen, I have suggested that Jonas' statement above "could be regarded as the essence of the precautionary principle that should guide science, design and politics alike." I described this precautionary principle as follows:

If we cannot predict the outcome of a certain action, but the possibility remains that it may have potentially disastrous side effects, we should refrain from that action, or, at the very least, experiment on a scale and with the appropriate measures of protection that would keep negative effects to an absolute minimum. It is time to drop old habits of indiscriminate and worldwide application of what is technically possible and economically marketable.[6:6]

Precaution cannot always lead to inactivity in the face of fundamental uncontrollability and unpredictability. Jonas is right in pointing out that there are situations in which we will have to act despite the fact that we cannot predict with certainty that our actions will not have negative effects (personal comment, 2004).

By reducing complex patterns of interactions to a set of analytically measurable variables, they often over-simplify the true complexity of the processes in which we participate and disregard the pattern that connects the local with the global, or economic with ecological and social concerns.

In learning to find design solutions to wicked problems with all their social and ecological interconnectedness, we will have to carefully establish guidelines of risk management. These have to be informed by a holistic perspective that encompasses possibly conflicting viewpoints of many different disciplines and sectors of society. Such a trans- disciplinary dialogue-based perspective negotiates the tension between advance and precaution.

Science, albeit a crucially important informant for sustainable decision-making, cannot simultaneously act as arbiter and ultimate authority, since the interdependence of social, ecological, ethical and spiritual considerations of survival value to the human species may otherwise be overlooked. The same holds for economics. Reductionist science and economics are extremely quantity-biased in their perception and assessment of situations and often miss important qualitative aspects of existence.

By reducing complex patterns of interactions to a set of analytically measurable variables, they often over-simplify the true complexity of the processes in which we participate and disregard the pattern that connects the local with the global, or economic with ecological and social concerns. Unfortunately, both science and economics have adopted a strategy of discrediting quality focused knowledge systems in favour of a purely analytical, quantifiable and measurable, and thus necessarily limited understanding of reality. To rely solely on input from within the reductionist scientific or economic worldview is bad meta-design, and will not yield sustainable solutions!

Design offers both a process of tentatively and carefully finding solutions, and a methodology of basing such solutions on as widely and inclusively informed a knowledge base as possible. At the nexus of values, attitudes, needs and action, the designer, or more precisely the process of designing offers the potential for acting as a transdisciplinary integrator and facilitator.

Community- and studio-based, participatory 'designing for real' can serve to integrate the concerns and contributions of diverse stakeholders and disciplines and acknowledge the valid contributions that can be made from within different epistemological positions. As we are beginning to face up to the unpredictability and uncontrollability of the complex systems in which we participate, the certainty of being either right or wrong that turns dialogue into argument dissolves into the collective search for appropriate participation and the avoidance of inappropriate actions that limit our options in the future.

One way to manage the risk of taking socially or ecologically disruptive design decisions is to pay more attention to the complex interconnectedness that characterizes life in the 21st century. All designs have to be considered in a much wider spatial and temporal context. With everything we do, we have to become aware that we are simultaneously affecting change at both the global and the local scale, and that our actions do not always have immediate effects but nevertheless may reverberate their effects over generations and in far away regions of the planet.

To give an example: Designing a new energy infrastructure based on nuclear power will result in an exponential growth in nuclear waste-production and the accumulation of materials that are damaging to most life forms over many millennia. Considering the issue in too limited a context may persuade people that nuclear power could slow down climate change, yet this would be another short-sighted and irresponsible design suggestion (see chapter five). Human beings can learn to become conscious and responsible co-designers of the world in which they participate, through increasing their awareness of the multi-causal and time-delayed effects of any action in a universe where everything is connected to everything else.

One way to manage the risk of taking socially or ecologically disruptive design decisions is to pay more attention to the complex interconnectedness that characterizes life in the 21st

Tony Fry has pointed out that we have not paid enough attention to the fact that "every design decision and form has an ongoing directional outcome — the designed always goes on designing." He emphasizes that our materialized designs of the present map the future "usually by a non-interrogated reoccurrence"[7:191].

The ecological, social and economic limits of a planet with finite resources and a human population approaching seven billion will force us to re-consider a large part of the design decisions that have shaped modern society, including the meta-design of our values and attitudes towards each other and nature.

Many of the design decisions of the past are still contributing to the design of our world today, but they do so in a thoroughly unsustainable way. We have to carefully reconsider even the most ingrained design habits in the light of their sustainability and in the context of all the scales of design from local to global, and over a variety of time scales.

In a brilliant article, entitled 'How Not To Parachute More Cats', Hunter and Amory Lovins[8] warn that one of the crucial lessons for decision makers and designers of any kind is to understand the interconnectedness and interactions between the various challenges that are facing us. Not to pay attention to the possible feed-back loops and vicious and virtuous cycles that connect culture and nature into one complex dynamic process can lead us to propose solutions that turn out to be the root causes of even graver problems in the future.

To illustrate this point, Lovins and Lovins tell the story of an attempt made by strategic planners of the World Health Organization to eradicate malaria in the region of the Dayak people on Borneo. The initial 'solution' was to spray the toxin DDT over large areas in order to kill the mosquitoes that carry the plasmodium parasite which causes malaria. This led to a brief success, the cases of malaria reduced drastically after the mosquito population died. But, a series of side effects began to spiral out of control. First, the roofs of people's houses collapsed as the DDT had also killed a certain parasitic wasp, which had prayed on thatch-eating caterpillars. Then, as the DDT poison began to accumulate up the food chain, all the cats in the area died due to feeding on geckoes, which had eaten the DDT-poisoned insects. This in turn led to a rapid increase in the populations of rats in the region and the Dayak people were suddenly faced with a severe threat of sylvatic plague and typhus. This forced the World Health Organization to take the rather grotesque measure of dropping 14,000 live cats by parachute over the forests of Borneo [8:3]

> "The main task in this century will be to apply our ecological knowledge and systemic thinking to the fundamental redesign of our technologies and social institutions, so as to bridge the gap between human design and the ecologically sustainable systems of nature"
> Fritjof Capra

This story can be considered a metaphorical warning for all designers: Consider the effects of your actions well, and be prepared for surprises. Design has to face up to the complex dynamics of natural process that includes all cultural process, which in turn includes the complex dynamics of social processes and human participation in local and global ecosystems.

Fritjof Capra suggests: "The main task in this century will be to apply our tecological knowledge and systemic thinking to the fundamental redesign of our technologies and social institutions, so as to bridge the gap between human design and the ecologically sustainable systems of nature"[9:40]. Natural, ecological, and salutogenic design tries to learn from nature how to integrate more effectively into nature's natural process.

Design is neither science nor is it art, but in its integrative role it can act as and be informed by either. Victor Margolin suggests "design occupies a strategic position between the sphere of dispositional ethics and the sphere of social change." He argues: "design is the activity that generates plans, projects, and products. It produces tangible results that can serve as demonstrations of or arguments for how we might live. Design is continuously inventing its subject matter, so it is not limited by outworn categories of products. The world expects new things from designers. That is the nature of design" [10:88]

It is time for designers — and all humans are designers to some extent — to think out of the box and assume responsibility of the effects or their actions. I thoroughly agree with Victor Margolin in that design is critically placed to shift society towards more sustainable practices.

The question we face is how to widen design's traditional sphere of action from manufacture to a more proactive involvement with the problematíque of the Club of Rome and other groups who are concerned with the world situation. By following this course, designers can seek through the art of demonstration to reconcile the best aspects of the sustainability and expansion models and thereby make an important contribution to the fruitful continuance of life on Planet Earth [10:89]

Acknowledgement

This is an excerpt from my 2006 PhD Thesis in 'Design for Human and Planetary Health: A Holistic/Integral Approach to Complexity and Sustainability'. This research and 10 years of experience as an educator, consultant, activist, and expert in whole systems design and transformative innovation have led me to publish Designing Regenerative Cultures in May 2016.

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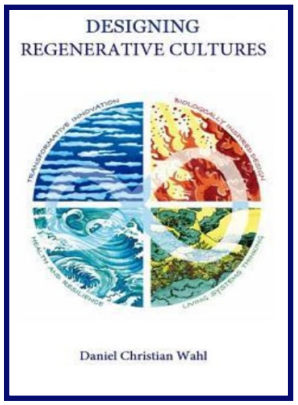


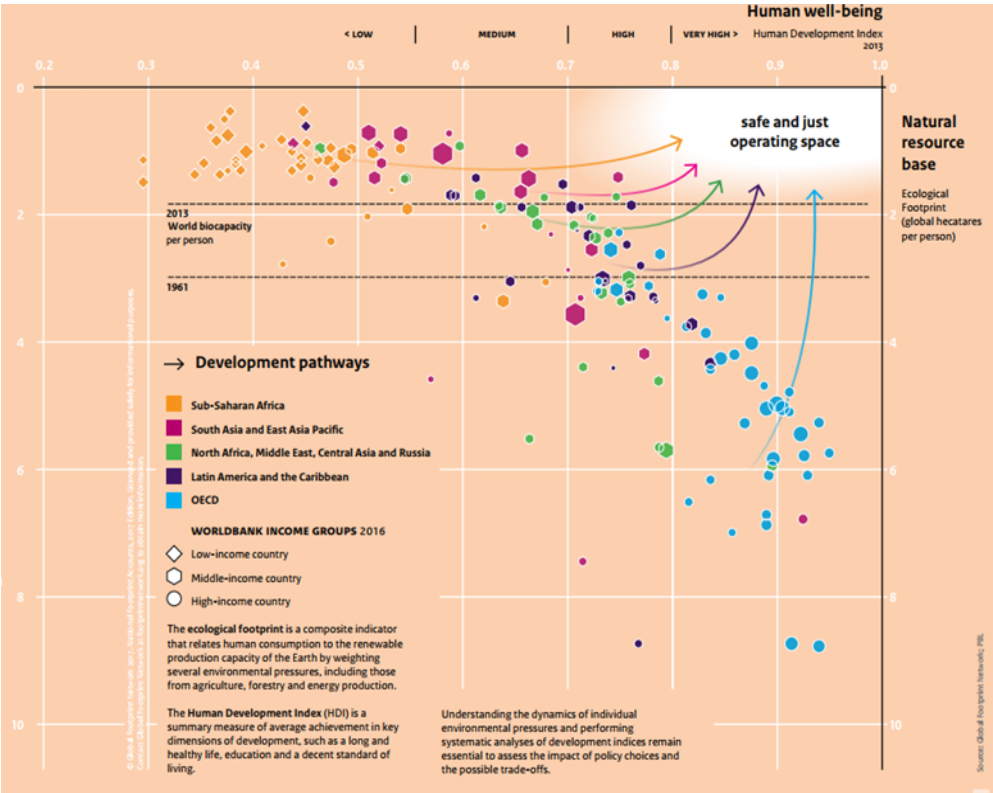
This is a 'Whole Earth Catalog' for the 21st century: an impressive and wide-ranging analysis of what's wrong with our societies, organizations, ideologies, worldviews and cultures - and how to put them right. The book covers the finance system, agriculture, design, ecology, economy, sustainability, organizations and society at large. In this remarkable book, Daniel Wahl explores ways in which we can reframe and understand the crises that we currently face and explores how we can live our way into the future. Moving from patterns of thinking and believing to our practice of education, design and community living, he systematically shows how we can stop chasing the mirage of certainty and control in a complex and unpredictable world. The book asks how can we collaborate in the creation of diverse regenerative cultures adapted to the unique biocultural conditions of place? How can we create conditions conducive to life?

Human Development in a Safe and Just Operating Space
Common but differentiated pathways for development
PBL Nederlands Environmental Assessment Agency

The 2030 Agenda for Sustainable Development[1] provides a global framework that aims to steer towards a safe and just operating space for society to thrive in. A society in which every person has the resources to meet their individual needs and aspirations, while collectively living within the carrying capacity of the planet. The 17 Sustainable Development Goals (SDGs) address the interrelated challenges of eradicating poverty and improving human well-being and social equity, reducing environmental risks and ecological scarcities by changing unsustainable patterns of consumption and production and promoting sustainable alternatives, and protecting and managing the natural resource base on which people's wealth and well-being is built.

An integrated approach is vital for minimising trade-offs and capturing synergies between the broad range of objectives it sets out. The challenges differ significantly between countries, depending on their human development level, consumption level, production methods and the resulting environmental footprint (natural resource base) (Figure 1).

Figure 1 Infographic showing possible developmental pathways for countries at different stages of development[2]



Achieving the SDGs collectively requires differentiated pathways. Low-income countries should significantly improve human well-being and avoid resource lock-ins, middle-income countries should aim for a relative decoupling of economic growth from environmental degradation, and high-income countries should aim for absolute decoupling of economic growth from environmental degradation.

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Education for Sustainable Development:

What do children have to say about sustainable development?

A view on children

Children of today are citizens - competent, active agents in their own lives with rights of their own (UN, 1989). They are affected by and capable of engaging with complex environmental and social issues. They steer away from romanticized notions of childhood as an arena for innocent play that positions all children as leading exclusively sheltered, safe and happy lives untouched by events around them. As values, attitudes, behaviours and skills are acquired already during early childhood, this is where ESD has to start (Pramling-Samuelsson & Kaga, 2008).

Children of today face a rapidly changing society with new challenges and possibilities. For four decades environmental issues have been on the educational agenda, initially named environmental education. Sustainable Development (SD) is widely understood as a form of development which meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland, 1987). Therefore, SD can be considered to represent an attempt to provide equity with, to and for, future generations.

The United Nations Convention on the Rights of the Child (UNCRC) states that children have the right to be involved and to be heard in matters that are affecting them. In Agenda 21, the UN agreement for global sustainable development from Rio 1992, children are recognized as important participants in the shaping of a sustainable future.

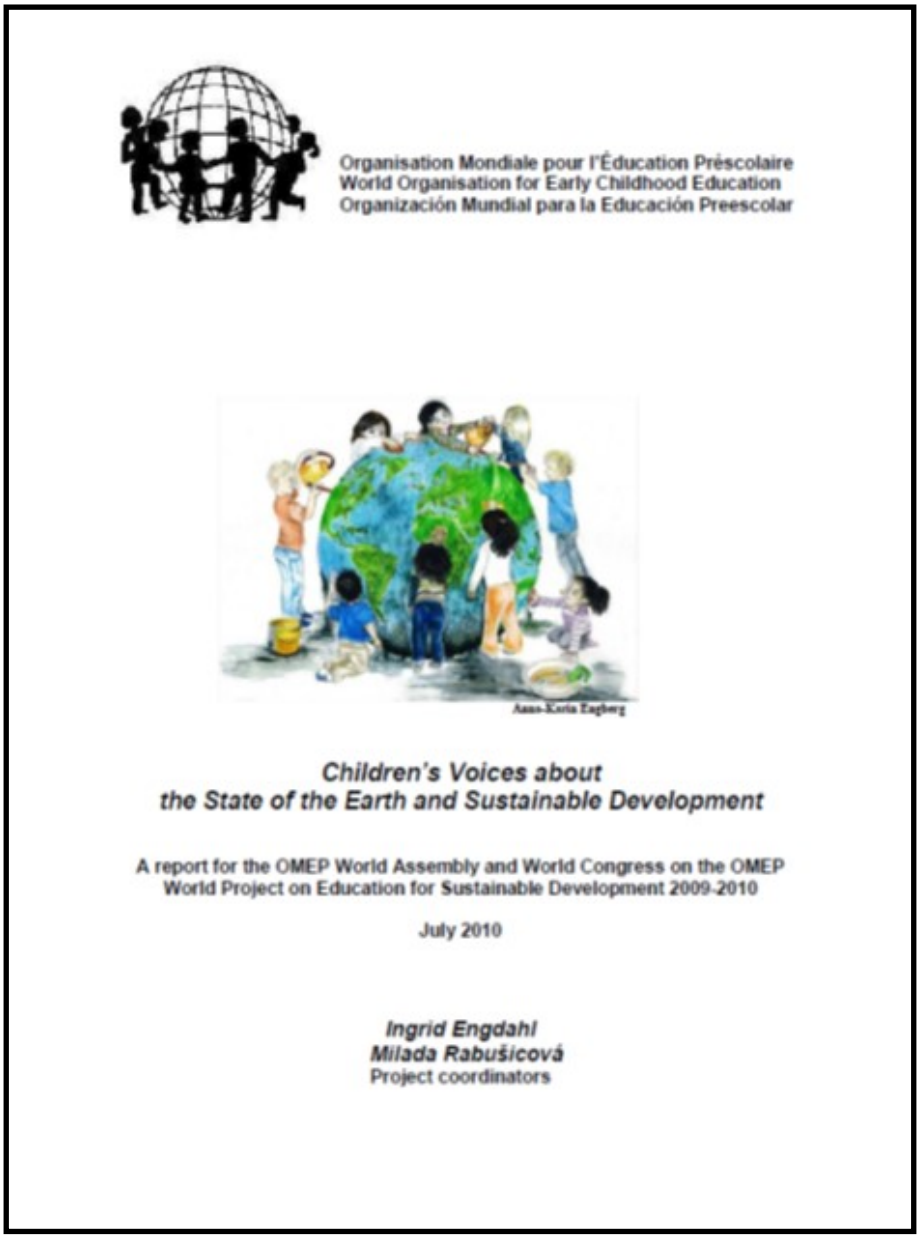
> "Children not only will inherit the responsibility of looking after the Earth, but in many developing countries they comprise nearly half the population. The specific interests of children need to be taken fully into account in the participatory process on environment and development in order to safeguard the future sustainability of any actions taken to improve the environment".
>
> (Agenda 21, 1992, chapter 25:12)

So begins a report by the Organisation for Early Childhood Education (OMEP 2010)[1]. The report contributed to the UN Decade of Education for Sustainable Development (2005-2014), which prioritised formal, informal and non-formal education and learning as a means to supporting a sustainable future for present and subsequent generations.

The underpinning principles of the project were that proposed actions should be:

- Interdisciplinary and holistic
- Values-driven
- Based on critical thinking and problem solving
- Draw of multi-methods
- Involve participatory decision making
- Applicable to the context
- Locally relevant

The researchers analysed reports from 28 different countries prior to a world congress, each based on feedback from a total 9,142 children aged 2-8 years old. The evidence and conclusions are too rich to reproduce here, but one point stands out:



Organisation Mondiale pour l'Éducation Préscolaire
World Organisation for Early Childhood Education
Organización Mundial para la Educación Preescolar

Aase-Karin Engberg

Children's Voices about
the State of the Earth and Sustainable Development

A report for the OMEP World Assembly and World Congress on the OMEP
World Project on Education for Sustainable Development 2009-2010

July 2010

Ingrid Engdahl
Milada Rabušicová
Project coordinators

" …it does seem that the majority of children have a sound beginning knowledge of the planet earth and how people might live their lives in relation to it. (…) overall they confidently offer their thoughts, comments and questions showing that they live in a real world about which they know something worthwhile."[2]

Readers are encourage to dip into the report itself and the projects that have succeeded this preliminary work, but going to the website listed below.

References

1 A report for the OMEP World Assembly and World Congress on the OMEP World Project on Education for Sustainable Development 2009-2010, July 2010 available at http://www.omep.org.uk/

2 Ibid page 12, available at http://www.omep.org.uk/

Teaching and Learning for a Sustainable Future: A multimedia teacher education programme offered by UNESCO

Norman Jackson

Educating for a sustainable future is a formidable challenge. How can we better understand the complexity of the world around us? How are the problems of our world interconnected, and what does that imply for their solution? What kind of world do we want for the future, within the limits of our Earth's life support systems? How can we reconcile the requirements of economy, society, and the environment?

The new vision of Education for Sustainable Development places education at the heart of the quest to solve the problems threatening our future. Education – in all its forms and at all levels – is seen not only as an end in itself but also as one of the most powerful instruments for bringing about the changes required to achieve sustainable development. Teachers, of course, are vital actors in this process and consequently have been given special attention.

Teacher education is a priority for UNESCO and, indeed, for the international community as a whole. Within its special work programme on education, the United Nations Commission on Sustainable Development invited UNESCO to make a significant effort to help teachers worldwide not only to understand sustainable development concepts and issues but also to learn how to cope with interdisciplinary, values-laden subjects in established curricula.

Teaching and Learning for a Sustainable Future is UNESCO's response to that challenge, and a major contribution to the United Nations World Summit on Sustainable Development (Johannesburg, September 2002). By making the programme available as both a web site and a CDROM, UNESCO hopes to reach as many teachers as possible across the world. The programme can be used as it is, or adapted to local, national or regional needs. Many translations and adaptations are already foreseen.

Education is the most effective means that society possesses for confronting the challenges of the future. Indeed, education will shape the world of tomorrow. Progress increasingly depends upon the products of educated minds: upon research, invention, innovation and adaptation. Of course, educated minds and instincts are needed not only in laboratories and research institutes, but in every walk of life. Indeed, access to education is the *sine qua non* for effective participation in the life of the modern world at all levels. Education, to be certain, is not the whole answer to every problem. But education, in its broadest sense, must be a vital part of all efforts to imagine and create new relations among people and to foster greater respect for the needs of the environment.

Programme overview

Teaching and Learning for a Sustainable Future is a multimedia teacher education programme published by UNESCO. It contains 100 hours (divided into 27 modules) of professional development for use in pre-service teacher courses as well as the in-service education of teachers, curriculum developers, education policy makers, and authors of educational materials.

UNESCO, and the international community in general, believes that we need to foster – through education – the values, behaviour, and lifestyles required for a sustainable future. Teaching and Learning for a Sustainable Future is rooted in a new vision of education that helps students better understand the world in which they live, addressing the complexity and interconnectedness of problems such as poverty, wasteful consumption, environmental degradation, population, health, conflict and human rights that threaten our future.

Teaching and Learning for a Sustainable Future will enable teachers to plan learning experiences that empower their students to develop and evaluate alternative visions of a sustainable future and to work creatively with others to help bring their visions of a better world into effect. It will also enhance the computer literacy of teachers and build their skills in using multimedia-based resources and strategies in their teaching.

There are over 60 million teachers in the world. Each one is a key agent for bringing about the changes in values and lifestyles we need. For this reason, innovative teacher education is an important part of educating for a sustainable future.

Teaching and Learning for a Sustainable Future

Vision: Teaching and Learning for a Sustainable Future is based upon a new vision of education, a vision that reorients the aims and content of education and teaching and learning approaches used by teachers so that they contribute to a sustainable future.

Content: The 27 modules address the difficult challenge of planning for whole-school change, teaching interdisciplinary themes, using learner-centred approaches to classroom teaching, and developing outcomes-based assessment strategies.

Access: The multimedia format of Teaching and Learning for a Sustainable Future means that it can be used by teachers either independently or in small self-study groups, even in isolated locations, thus avoiding traditional barriers of access to training and new information. It can be accessed at http://www.unesco.org/education/tlsf/index.html

Cost: Teaching and Learning for a Sustainable Future is virtually cost free to users as UNESCO has absorbed research and development costs.

Adaptibility: Teaching and Learning for a Sustainable Future can be translated into different languages. Its contents can also be adapted to different national and regional contexts. UNESCO encourages translation and adaptation. Guidelines are provided in the programme for that purpose. Teaching and Learning for a Sustainable Future is published initially in English with adaptations to suit different national and regional contexts as well as versions in additional languages planned.

Towards a sustainable future: Thinking about the future

No one knows what the future will be, except that it will be very different from what life is today and that decisions about whether the future is a sustainable one or not will depend upon changes in human culture.

Our culture includes our whole system of beliefs, values, attitudes, customs and institutions. It shapes our gender, race and other social relations, and affects the way we perceive ourselves and the world and how we interact with other people and the rest of nature. To the extent that the global crisis facing humanity is a reflection of collective values and lifestyles, it is, above all, a cultural crisis. Culture, therefore, has a central place in the complex notion of sustainability – and whatever form the future takes, it will be shaped at the local level by the mosaic of cultures that surround the globe and which contribute to the decisions that each country, community, household and individual makes.

Our increasing awareness of many pressing global realities is helping us to understand the impact of human actions on the environment and on human quality of life. Indeed, the concept of sustainability is, in itself, a reflection of this growing awareness and of the need for new cultural values. Thus, it has been suggested that:

Perhaps we are beginning to move towards a new global ethic which transcends all other systems of allegiance and belief, which is rooted in a consciousness of the interrelatedness and sanctity of life. Would such a common ethic have the power to motivate us to modify our current dangerous course? There is obviously no ready answer to this question, except to say that without a moral and ethical foundation, sustainability is unlikely to become a reality.

Local and national communities are applying this ethic in many different ways and developing images of sustainable futures that are both culturally appropriate and locally relevant. The great diversity of cultures around the world means that there will be many versions of what a 'sustainable future' might be like and many different local forms of sustainability. Despite these differences, there are at least three common themes in global thinking about sustainable futures. These include the ideas that sustainability involves: thinking about forever; a process of learning; and, a dynamic balance.

Thinking 'forever'

Underlying all our images of a sustainable future is the key principle that sustainability is about 'thinking about forever'. This means committing ourselves to the common good by thinking differently, considering things previously forgotten, broadening our perspectives, clarifying what we value, connecting with our neighbours, and providing hope for future generations.

Building the capacity to think in terms of 'forever' is a key task of education. It's a task that encourages the individual to think beyond themselves and their own lifespan: to connect themselves to humanity and the earth in a future that is not their own.

A process of learning

Educating for a sustainable future is not so much about a destination as about the process of learning to make decisions that consider the long-term economy, ecology and equity of all communities. Its goal is to build an enduring society. This involves learning how to anticipate the consequences of our actions, envision a sustainable future and create the steps needed to achieve the vision. Individuals and societies will perpetually have to make choices. How those choices are made and the information and ethical discernment used in making them will determine whether our visions of a sustainable future are achieved.

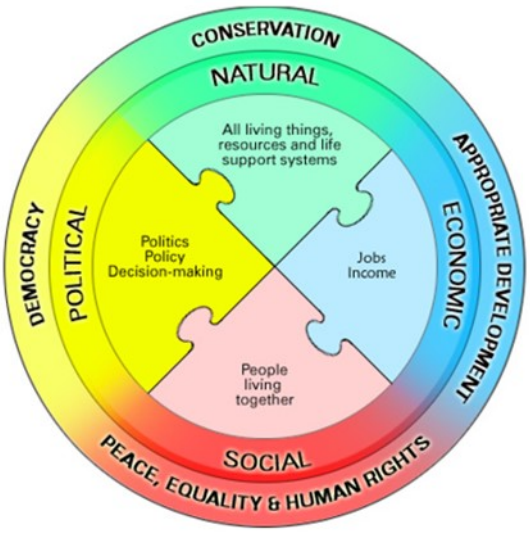
The World Commission on Environment and Development urged people, governments and businesses around the world to make their choices that contributed to ways of living and relating to the Earth and each other so that the use of resources today would meet 'the needs of the present without compromising the ability of future generations to meet their own needs.'

How can the needs of current and future generations be met in a world where the aspirations of many people far exceed their needs and the life chances of the many more are acutely limited by poverty and environmental decline? The task of creating social, economic and political systems that meet our needs and aspirations, that are based on sound ecological principles, and that are democratic and fair to current and future generations, is a deeply challenging one. Yet, building the capacity and commitment to build such a sustainable future is, in large part, one of the tasks of education. This requires that teachers and schools have a vision of what a sustainable future might be like – bearing in mind the dynamic balance between cultural differences and the emerging global ethic of 'interrelatedness and sanctity of life'.

A dynamic balance

The dynamic balance between cultural differences and this emerging global ethic is a key concept in educating for a sustainable future. It reminds us that sustainability will be built from the actions of people and businesses in their own communities, at local levels, and extend outwards in a spirals of shared understandings and revised and renewed visions.

Teaching and Learning for a Sustainable Future does not prescribe the forms that a sustainable future might take. Rather, it encourages adaptations and applications of the learning activities to local situations and needs. Nevertheless, in keeping with the emerging global ethic of 'interrelatedness and sanctity of life', the learning activities reflect a dynamic balance among four dimensions and principles that underlie a sustainable future.



Dimension of Sustainability		Value Principle
Social Sustainability	⟷	Peace and Equity
Ecological Sustainability	⟷	Conservation
Economic Sustainability	⟷	Appropriate Development
Political Sustainability	⟷	Democracy

These principles mean that a sustainable future would be one in which people:

- Care for each other and value social justice and peace
- Protect natural systems and use resources wisely
- Value appropriate development and satisfying livelihoods for all
- Make decisions through fair and democratic means.
- Developing the capacity and commitment to apply these principles at the level of personal and family actions, and in decisions for local, national and global communities, is the task of educating for a sustainable future.

Objectives

Education seeks to provide the intellectual enlightenment and the spiritual emancipation in the search for a better existence for all life on Earth … The sustainability transition is in effect a social and political revolution that hopefully can take place through peace and understanding. This is the challenge for the next generation.

The objectives of *Teaching and Learning for a Sustainable Future* are:

- To develop an appreciation of the scope and purpose of educating for a sustainable future.
- To clarify concepts and themes related to sustainable development and how they can be integrated in all subject are-as across the school curriculum.
- To enhance skills for integrating issues of sustainability into a range of school subjects and classroom topics.
- To enhance skills for using a wide range of interactive and learner-centred teaching and learning strategies that underpin the knowledge, critical thinking, values and citizenship objectives implicit in reorienting education towards sustainable development.
- To encourage wider awareness of Information and Communication Technologies (ICTs), the potential of multimedia-based approaches to education and the potential of the Internet as a rich source of educational materials.
- To enhance skills in computer literacy and multimedia education.

Curriculum

Teaching and Learning for a Sustainable Future is a UNESCO programme for the United Nations Decade of Education for Sustainable Development. It provides professional development for student teachers, teachers, curriculum developers, education policy makers, and authors of educational materials. The modules are divided into 4 themes. More …

THEME 1

CURRICULUM RATIONALE

These modules present an introduction to the global realities, imperatives for sustainable development and educational issues that form the rationale of Education for a Sustainable Future.

1. Exploring global realities
2. Understanding sustainable development
3. A futures perspective in the curriculum
4. Reorienting education for a sustainable future
5. Accepting the challenge

THEME 2

SUSTAINABLE DEVELOPMENT ACROSS THE CURRICULUM

These modules illustrate ways in which Education for Sustainable Development can be integrated into all areas of the curriculum, especially into cross curriculum themes such as health and consumer education.

6. Sustainable futures across the curriculum
7. Citizenship education
8. Health education
9. Consumer education

THEME 3

CONTEMPORARY ISSUES

This section illustrates ways in which a variety of curriculum themes may be recognised to integrate an interdisciplinary emphasis on a sustainable future.

10. Culture & religion for a sustainable future
11. Indigenous knowledge & sustainability
12. Women & sustainable development
13. Population & development
14. Understanding world hunger
15. Sustainable agriculture
16. Sustainable tourism
17. Sustainable communities
18. Globalisation
19. Climate change

THEME 4

TEACHING & LEARNING STRATEGIES

This set of modules develops professional skills for using teaching and learning strategies that can help students achieve the wide range of knowledge, skill and values objectives of Education for Sustainable Development.

20. Experiential learning
21. Storytelling
22. Values education
23. Enquiry learning
24. Appropriate assessment
25. Future Problem Solving
26. Learning outside the classroom
27. Community Problem Solving

Education for Sustainable Development

Jenny Willis

This article summarises the guidance published in June 2014 by the Quality Assurance Agency for Higher Education (QAA) and the Higher Education Academy (HEA) as QAA763. The full document can be downloaded at http://www.qaa.ac.uk/en/Publications/Documents/Education-sustainable-development-Guidance-June-14.pdf .

Background

The guidance on Education for Sustainable Development (ESD) was produced through a collaboration between the QAA and HEA. Following a sector-wide consultation, it was published in June 2014, to complement Chapter B3 of the UK Quality Code for Higher Education[1]. Whilst the guidance is not prescriptive, its expectations form part of the formal QAA review process for UK institutions of higher education. It is recognised that the nature of provision will vary according to discipline and institution but the principles are applicable to undergraduate provision and assessment at Level 6 and may be addressed at Level 5 (including foundation degrees) and at postgraduate level.

What is sustainable development?

The ESD guidance adopted the definition used by the United Nations Brundtland Report (1987)[2]:

> Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

In 2005, a UN World Summit[3] endorsed the concept of three 'pillars' of sustainability, which should be considered in their individual cultural context:

- Economic factors
- Social factors
- Environmental factors

Since that time, it has been increasingly accepted that these factors are interdependent and iterative. The definition of education for sustainable development has therefore evolved as follows:

> Education for sustainable development is the process of equipping students with the knowledge and understanding, skills and attributes needed to work and live in a way that safeguards environmental, social and economic wellbeing, both in the present and for future generations. (QAA763, p.5)

This is elaborated further into a broad set of objectives for learners, viz. to

- consider what the concept of **global citizenship** means in the context of their own discipline and in their future professional and personal lives
- consider what the concept of **environmental stewardship** means in the context of their own discipline and in their future professional and personal lives
- think about issues of **social justice, ethics and wellbeing**, and how these relate to ecological and economic factors
- develop a **future-facing** outlook; learning to think about the consequences of actions, and how systems and societies can be adapted to ensure sustainable futures.

ESD:
- Global citizenship
- Environmental stewardship
- Social justice, ethics and wellbeing
- Future-facing

Shared responsibility for ESD

The responsibility for facilitating development of these competencies is placed firmly with ***universities***, referring to the European Commission report (2013*) Modernising Higher Education in Europe*[4] which states:

> higher education institutions are the focal points for imparting what is known, interrogating what is not, producing new knowledge, shaping critical thinkers, problem solvers and doers so that we have the intellectual muscle needed to tackle societal challenges at every level necessary and advance European civilisation.

Typical issues identified for preparing graduates for their role as global citizens include inequality, public health, global consumption, biodiversity loss and the limits of natural systems.

Education for sustainable development is 'future-facing': 'students are encouraged to think about current and emergent and future situations, relevant to their studies, and in so doing gain a wider socioeconomic and environmental perspective on the relevance of their work.'

Each individual graduate is seen to be responsible as a steward, not only of the environment, but also of social justice, in their future roles as employees, citizens, parents and mentors of the next generation. This view was endorsed by the National Union of Students and their members[5]. The ESD guidance acknowledges:

> Self-reflection, with an emphasis on the development of personal values, is in creasingly seen as important for professions where ethics and moral behaviour are a hallmark of good practice. (p.6)

Responsibility for sustainability lies with:

- HE institutions
- Individual graduates
- Business and industry

Through critical thinking and wide-ranging self-reflection, students are prepared for adaptation to novel situations and a world of complexity.

While the guidance is focused on curricular activities, it recognises that students may also learn through extracurricular activities, both on and off campus, such as volunteering or participation in community-based projects. The guidance proposes that:

> Being open to a range of other areas of expertise and banks of knowledge, outside their immediate discipline, through both formal and informal learning environments, is a fundamental feature of education for sustainable development. (p.7)

Businesses and industry are also responsible for the impact of their decisions and activities on society and the environment, hence they are expected to demonstrate transparent and ethical behaviour above and beyond statutory requirements. A study carried out for the HEA in 2008[6] found that over half of employers surveyed (n=87) already had at some time referred to social and environmental responsibility in their selection of recent graduates.

Outcomes for ESD

An outcome-based approach is taken in the guidance, which recognises that, while some may be applicable across disciplines, other outcomes may be more appropriate to specific disciplines. The proposals are not intended as a rigid checklist but rather as a guide for those designing a module or programme. It is suggested that the list of graduate outcomes be used when:

- Discussing the outcomes as a staff development exercise to enhance understanding of sustainability and how it might align with existing learning outcomes in a module or programme.
- Selecting outcomes from the framework which align with the requirements of the curriculum in a specific discipline, and embedding them in module or programme specifications as relevant.
- Using the whole set of outcomes as a guide for developing a new interdisciplinary programme focusing on sustainability - with appropriate adjustments to suit the institutional context and course team expertise. (p.9)

The graduate outcomes are set out in terms of:

- knowledge and understanding
- skills
- attributes.

These are cross-referred to the four core themes: global citizenship; environmental stewardship; social justice, ethics and wellbeing; and future-thinking. They are detailed in the tables below.

Table 1, Graduate outcomes, knowledge and understanding

Knowledge and understanding

Graduate outcome	Global citizenship	Environmental stewardship	Social justice, ethics and wellbeing	Future-thinking
describe the relationships between environmental, social and economic systems, from local to global level	x	x	x	x
identify the risk that system complexity can lead to unexpected and novel outcomes	x	x	x	x
identify the root causes of unsustainable development, including environmental, social and economic actions, and the links to cultural considerations	x	x	x	x
evaluate the impacts and interconnections between the activities of different generations, demographic groups and cultures, recognising that there may be tensions and competing factors between them	x		x	x
demonstrate that both unsustainable and sustainable practices take place in an evolving context, necessitating adaptability in policy and planning responses	x	x	x	x
identify the causes and possible solutions to inequity at intra- and inter-generational global levels	x		x	x
identify the importance of drawing upon scientific evidence and scholarly research in seeking to understand the environment and the impact of human activity upon it		x		x
identify that natural systems have non-negotiable limits and may become unstable or collapse if subjected to excessive pressures or changes		x		x
demonstrate that the collective effect of actions is not necessarily just a simple sum of their individual effects but is likely to be more complex	x		x	
identify the rationale for encouraging behavioural change where existing practices are shown to have a negative impact on the human and natural environment	x			
identify that positive or negative environmental change may arise from economic growth	x	x	x	x
identify risks and uncertainties associated with the transformation of the natural environment		x		
identify the need for decisions about natural resources to involve judgements not just about economic viability but about risks to future ecological, social or cultural wellbeing		x		x
describe how aspects of their own discipline or area of study contribute to sustainable development	x		x	x

Graduate outcome	Global citizenship	Environmental stewardship	Social justice, ethics and wellbeing	Future-thinking
describe how power structures and political systems influence sustainable development	x	x	x	
identify the interactions between human communities and ecological systems, and be able to assess the potential impacts upon each other	x	x	x	
identify the wide range of human cultures in existence, and understand both the benefits and the challenges that these cultures present in terms of sustainable development	x		x	
describe the potential for their discipline to interconnect with other disciplines or areas of expertise and make creative leaps forward				x

Table 2, Graduate outcomes, skills

Skills

Graduate outcome	Global citizenship	Environmental stewardship	Social justice, ethics and wellbeing	Future-thinking
use and apply established frameworks and methodologies for analysing the impact(s) of a behaviour or process, utilising the skills and expertise developed through their own area(s) of study	x			x
critically assess and analyse sustainability issues that need to be addressed, including real-life examples, within the context of their own discipline, area of study or profession	x	x	x	x
describe complex sustainability issues in clear terms and communicate about them effectively and succinctly, both orally and in writing	x	x	x	x
generate and evaluate different models of sustainable development to assess their likely impact, within the context of their own discipline or area of study	x	x	x	x
engage in interdisciplinary discussion in their professional lives to inform their thinking about sustainable futures and seek holistic, creative solutions to problems		x	x	x
think systemically, in terms of recognising connections and interactions between factors, and understand that actions often have multiple consequences	x	x	x	x
actively implement or contribute to changes that promote sustainable development within the scope of their own learning experience and study environment	x	x	x	x
effectively engage with real-life problems relevant to sustainable development	x	x	x	x

Graduate outcome	Global citizenship	Environmental stewardship	Social justice, ethics and wellbeing	Future-thinking
use historical knowledge and an understanding of the consequences of past actions to envision how futures may be shaped	x	x	x	x
identify the importance of empowering individuals and organisations to work together to create new knowledge	x	x	x	x
employ leadership for sustainable development by challenging assumptions and negotiating alternatives to unsustainable current practices, especially within their own discipline or area of study	x	x	x	x
tackle and negotiate sustainable development conflicts with an awareness of different perspectives and motivations	x	x	x	x
identify sustainable development strategies to help build consensus	x	x	x	x
facilitate and mediate progressive discussions among interested parties (stakeholders) to help resolve dilemmas and conflicts	x	x	x	x
identify the opportunities to support and develop a progressive and resilient culture that encourages citizens, professions and institutions to put learning into practice	x			x

Table 3, Graduate outcomes, attributes

Attributes

Graduate outcome	Global citizenship	Environmental stewardship	Social justice, ethics and wellbeing	Future-thinking
the capacity for independent, evidence-based integrated thinking as the foundation for developing their personal ethical code	x	x	x	x
the ability to clarify their own views on ways that sustainability can be achieved in different local and global communities and circumstances	x	x	x	x
the ability to evaluate the consequences of their own actions and of collective actions	x	x	x	x
the capacity to be flexible and resourceful and adapt their problem-solving mindset to fit changing or unforeseen circumstances	x			x
a commitment to lifelong learning in their education for sustainable development				x

Approaches to teaching and learning

The ESD guidance recommends real-life problem solving and situations. This approach is likely to be interdisciplinary, multi-disciplinary or transdisciplinary and highly interactive. Exposure to multiple perspectives facilitates critical reflection on personal values and assumptions, so may lead to 'transformative learning' and the emergence of creative ideas.

We are reminded of the Swaraj University (see articles below) in the suggestion that the campus may be used

> as a 'living laboratory' where students learn about growing food, resource management, community relationships and local economic impacts (p.13)

The educator's task is described as providing an environment in which:

- divergent views can be shared and explored in a safe environment
- there are opportunities for deep and critical reflection on students' own perspectives and what has influenced their thinking and practices in this area
- democratic and participatory learning approaches are modelled
- interdisciplinary approaches, systems thinking and holistic thinking are encouraged
- teaching, learning and assessment activities are linked to real-life concerns.

Table 4 reproduces a set of questions that are offered as sample prompts for educators planning for ESD.

Table 4, Guidance for educators

Questions that educators may ask themselves

Educators may find it useful to ask themselves certain questions in order to generate ideas and reflect on their practice. They may also find it useful to think about some of the questions that students may want to ask. Some examples of questions educators may ask include the following.

Debating sustainability/sustainable development

- How does education for sustainable development relate to my subject area or discipline?
- To what extent am I already covering sustainable development issues referred to in this guidance? How can I make those features more explicit?
- What types of sustainable development case studies exist within, and are applicable to, my discipline?
- Where knowledge is contested, or values are involved, what position will I take in a presentation or discussion? Should I state my views at the outset?
- How will I handle the provisional and ever changing nature of knowledge about sustainable development?

Engaging students

- How can I help students develop interdisciplinary thinking and encourage them to take a holistic approach?
- If many of my students perceive sustainable development as solely or primarily an environmental issue, how can I ensure they understand the balance between society, economy and environment?
- The words 'sustainability' and 'sustainable development' do not resonate with the vocabulary commonly used in my discipline. What alternative words and concepts could I use to engage my students?
- What vocabulary might need to be shared in order for us to engage in multidisciplinary discussion?
- How can I make best use of students' prior learning about sustainable development to enhance the curriculum?
- How can I encourage students to understand a range of cultural perspectives on problems relating to sustainable development?
- How can I involve students in the development of the education process?

Engaging colleagues

- How can I engage my colleagues and teaching team in this?

The learning environment

- How can I provide learning opportunities that have authenticity, enabling students to relate their knowledge and skills to real-life problems, both locally and globally?
- How do I create a learning environment in which the personal views of individual students about sustainable development can be safely shared and evaluated?
- To what extent is cultural diversity reflected in the student body? How can I adapt for similarities and differences?
- Are there ways in which it would be appropriate for me and/or my students to explore and evaluate sustainability practices within our own institution?

The guidance also suggests teaching and learning methods that are likely to be most effective for this purpose:

- case studies
- stimulus activities
- simulation
- experiential project work
- problem-based learning

Selection will depend on the discipline or the sustainability challenge to be addressed. Illustrations of how this might be applied in practice are given. This summary of the guidance concludes with the example that relates to social justice, ethics and wellbeing.

The consideration of social justice, ethics and wellbeing is central to education for sustainable development. It is necessary to consider the individual and whole communities, both locally and globally.

One example learning activity would be to explore the global impacts of fashion.

Students can develop a sustainable management plan for the development of a new

piece of clothing such as a t-shirt or a pair of jeans. The plan should incorporate the lifecycle of the article of clothing through cotton production, cotton harvesting, distribution,

clothing production, printing, transport, sale, usage, and end of life (disposal or recovery). At each stage of the cycle the social justice issues should be identified in terms of health, wellbeing, labour, salary, education, and fair-trade in terms of the individual and the community. The environmental impacts of each stage should also be identified to demonstrate the overall sustainability implications of the fashion trade.

This exercise can address the impacts of production, trade barriers, personal health, cultural expectations, education, poverty, forced labour, pesticide use, biodiversity loss, carbon management, living wage, water distribution, water quality, land management, transport impacts of distribution, economic development, waste management, sustainable procurement, over-consumption, resource depletion, and personal health and wellbeing. The social justice implications of the global fashion trade are the focal point throughout this exercise.

Students can present their sustainable clothing management plan to the class, or to local retail centres. The work could equally form a resource base on a collaborative website or wiki. Alternatively students could produce an information film demonstrating the sustainability impacts of the global fashion trade.

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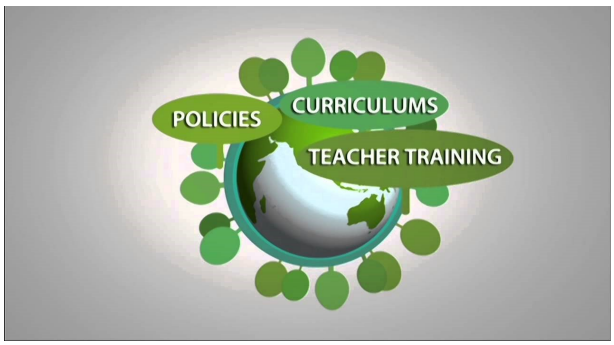


Higher Education *for* Sustainable Development

Kerry Shephard

Kerry is Professor of Higher Education Development at the University of Otago, New Zealand. His current research addresses 'education for sustainability', 'academic integrity' and 'community engagement'. As higher education grapples with massification, commercialisation and its role as 'critic and conscience of society' it needs to address how it impacts on future citizens. His research aims to help higher education understand what it is currently doing, why it may need to change and perhaps how to do it.

Political roots of sustainability

The paradigm of 'education for sustainable development' or ESD, can trace its origins far back into the 20th century when the focus was primarily on environmental education. But then the World Commission on Environment and Development[1] (The Brundtland Report 1987) and the United Nations Conference on Environment and Development[2] (1992) helped to develop the rationale of linking environment to both society and economy, so as to create sustainability, and an emphasis on the vital contribution of education to sustainable human development. The concept of a *higher* education *for* sustainable development (HESD) appears, on the face of it, eminently sensible and a natural development from the contribution made by other forms of education. After all, higher education is, broadly speaking, responsible for educating or training many of the professionals who have a more than average influence over the ways that our environment, societies and economies are managed. And higher education couldn't really be 'for' un-sustainable development – could it?

The Earth Summit held in Rio de Janeiro in 1992 was unprecedented for a UN conference, in terms of both its size and the scope of its concerns. Twenty years after the first global environment conference, the UN sought to help Governments rethink economic development and find ways to halt the destruction of irreplaceable natural resources and pollution of the planet.

Higher education's response

In some respects higher education is clearly living up to these expectations. Academics at our education institutions around the world are working hard to find solutions to our current problems and all of us hope that higher education scientists, economists and sociologists will manage to solve the wicked problems that at present dominate our thinking about the future. Many higher education institutions are also mindful of their presence as role model for their students and for their sponsoring societies and seek to operate their campuses with sustainable development in mind. But this article is not about these roles. Rather it interprets higher education for sustainable development in the specific context of its direct educational role. Societies in many countries are concerned about matters such as climate change, deforestation, poverty, social justice and conservation and expect their higher education institutions to have some influence on these via their influence on what students are learning whilst in their care; within an implicit understanding that more of the same will not do, and that higher education for sustainable development needs to be for all students, not just for those who choose topics with direct bearing on sustainability. These expectations appear in a plethora of governmental strategies and policies. The UK's 2005 Sustainable Development Strategy[3], for example, suggested that "*All graduates will share responsibility as stewards, not only of the environment, but also of social justice - as employees, citizens and, in many cases, parents and mentors of the next generation*". Accordingly, higher education institutions around the world have responded with their own strategies and policies promising to do better. More than 500 institutions worldwide have signed the Talloires Declaration[4], promising, for example, to educate for environmentally responsible citizenship. My own institution, the University of Otago in New Zealand, promises to 'nurture a culture of sustainability'.

The Talloires Network

TALLOIRES DECLARATION

"Our institutions recognize that we do not exist in isolation from society, nor from the communities in which we are located. Instead, we carry a unique obligation to listen, understand, and contribute to social transformation and development."

How well is Higher Education doing?

So, how well is it working? After many years of higher education institutions being involved in higher education for sustainable development, are our students learning something appreciably different from what they were learning before? Is higher education's teaching proving to be part of the solution to the sustainability problems of the world or part of the problem? Actually, these are not easy questions to answer. By and large higher education institutions are not routinely evaluating or assessing the impact that they are having on our students' learning in the context of sustainability. In lieu of direct measures of changed student learning, a range of indicators has been developed. Institutions might judge themselves on, for example, whether or not new university teachers are trained to 'educate *for* sustainable development' and some institutions would no doubt pass this particular test. But evaluating or assessing student learning is proving far more problematic. Research[5] here at the University of Otago suggests that our students arrive with a particular worldview that is strongly related to the course or programme that the student intends to follow, but that our particular university education may not significantly impact on this; so they may leave us much as they arrived. Equivalent research in the USA, at the University of Michigan[6:497], an institution with a recognised sustainability focus, found " … *no evidence that, as students move through [the University], they became more concerned about various aspects of sustainability or more committed to acting in environmentally responsible ways, either in the present moment or in their adult lives*." I do on occasions find research outputs that suggest more positive outcomes, but they are rare. Remarkably, despite all the promises that higher education institutions around the world make with respect to student learning for sustainability, there is very little evidence that higher education's impact is anything other than 'more of the same'.

Why has higher education so far found it so difficult to achieve this particular change, or if it has, to demonstrate its achievements? Here are some ideas for readers to ponder on.

> Higher education teachers do not necessarily receive the same sort of education about teaching as schoolteachers do, so they miss out on some of the educational theory. Without this educational theory, those who sign internat ional declarations should be forgiven for assuming that educating *for* environmentally responsible citizenship is synonymous with educating *about* environmentally responsible citizenship. Educational theory puts the latter firmly within the cognitive (knowledge and skills) sphere of learning while the former resides within a related, but differ ent, affective (values and attitudes) side of learning. I like to say, in the context of sustainability related decisions, that we university graduates are rarely limited by what we know, or what skills we have to put that knowledge to use, but that what we choose to do with the knowledge and skills that we have learned is all important. Education *for* sustainability is in essence a quest for affective outcomes of values, attitudes, dispositions and behavioural intentions. I'm confident that most of my students, and I suspect most readers of this article, already have the knowledge and skills to know that a holiday involving jet aeroplanes and air-conditioned hotels is likely to be less sustainable, on many counts, than the same holiday period spent planting vegetables in their own back garden. Having sustainability-related knowledge and skills is not enough to change behaviours. I am also confident that most will have some understanding of the complexity inherent to even simple sustainability dilemmas like how we spend our holidays. Yet, somehow we promise, via higher education *for* sustainable development, to encourage our students to make choices that are different from the choices that our generation has made. School-based compulsory education has a similar challenge, but adopts different educational approaches (such as being compulsory) from those traditionally found in higher education; but even so, evidence of success is quite patchy.
>
> My own research[7] suggests that some university teachers do wish to advocate for sustainability as they teach Business, Physics, English or Mathematics. They consider this their right and responsibility (for example as public intellectuals, with academic freedom to do so). But many do not, for essentially the same reasons. Some do not see the problems of the world in a sustainability context. They may appreciate climate change and mass extinctions in an anthropocentric context and see no reason to educate their students in, what is to them, fanciful dogma. No doubt some are climate change deniers. Some object to the overt values base of the sustainability education mission and identify their own role as emphasising values-free knowledge within their particular discipline. Whatever my own views on the ethics of 'higher education for sustainable development', an entirely pragmatic response to this variation in the identity of university teachers is to wonder if these are the right people to lead our societies into sustainability. I do understand the ethos of 'greening the curriculum' but I suggest that those who promote it, in the context of higher education should reconsider. With a hypothetical highly intelligent, anthropocentric,

climate-change denying professor of history in mind, personally I doubt the likely success of the venture. Even worse for me, is the advocate for sustainability who still drives a car, flies to conferences, and to the discerning eyes of our students appears to benefit substantially from the unsustainability professed in their teaching. I have met some wonderful role models for sustainability in my travels around higher education, but not many. Higher education teachers, in general and in the context of sustainability, are not necessarily the change agents that some anticipate we should be.

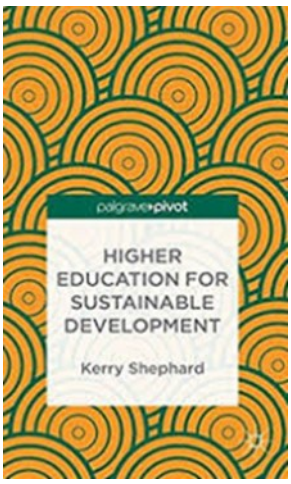
And higher education does have a lot of society's issues to address. For many in higher education, sustainability is just one of many changes underway. We do need to boost economies, address racism and sexism, widen participa tion, and teach more and more students on tight budgets. To keep our jobs we really do have to demonstrate not only our skills in teaching and the quality of our research, but also the relevance of these things to our nation's economic prosperity. Perhaps driving the sustainability mission is just one more item on the list and often this particular item appears to make our other tasks all the more challenging.

Higher education teachers, in general and in the context of sustainability, are not necessarily the change agents that some anticipate we should be.

Readers will appreciate that at present I do not see higher education as leading social change towards sustainability. At best we are following what others are doing. But I do see higher education's potential to do a lot more than it is doing at present.

In what form does this potential occur?

I spent much of 2013 researching higher education for sustainable development and at that time I was personally quite despondent about our progress. Other than the obvious dichotomy of those who advocate for sustainability, and those who do not, what most impressed me as I visited universities in the USA, Europe and Australasia was the passion that all university academics everywhere have for teaching their students critical-thinking skills. It was a welcome finding for me in particular because it was the one thing in the broad context of sustainability education that everyone appeared to agree with. It is notable that the ability to think critically has long been identified as an important attribute of the sustainably-minded citizen (alongside other thinking attributes such as systems thinking and anticipatory thinking). For me, at that time, I thought it important to find some sustainability-related learning outcome that all those who teach in higher education could contribute to. As I developed a grounded theory for HESD, or as I like to say, Plan B, it seemed far more sensible to focus on something that everyone appreciated and wanted to achieve, than to continue the failing mission (Plan A) of trying to get everyone in higher education to teach something that many didn't believe in, and probably couldn't teach very well anyhow. An important and related element of my Plan B was that critically thinking students are best placed to understand the underlying assumptions involved in all higher education teaching. Whether university teachers agree that by ignoring sustainability as they teach their 'values-free knowledge' they are supporting the status quo, is less important to this theory than their students' ability to make their own mind up about the meanings that may or may not be hidden in their curricula. Whether those who openly advocate for sustainability in their teaching do so from naivety, a sound values-base or ignorance will be a matter for critically thinking students to decide for themselves. Perhaps more importantly, critically thinking citizens will be able to understand the influence that their upbringing has had on their personal identity, and on the decisions that their identity dictates that they make, and maybe think again. Plan B celebrates university teachers' academic freedom to teach what they want to teach, how they want to teach it (as long as it includes critical thinking) and higher education students' rights to learn what they want to learn rather than what a previous generation thinks they ought to learn (as long as it includes critical thinking!). Plan B is described in detail in my book.[8]



There are, of course, some issues to address, before we abandon Plan A, and wholeheartedly embrace Plan B.

Whatever Plan we do adopt, how will we know if it is working? At present higher education in general has chosen to not evaluate progress towards many of the promises that it has made, such as to 'educate for environmentally responsible citizenship'. I think that societies around the world have come to expect their politicians to say one thing, and do something different, but I am surprised that we accept this from our universities. While I endorse higher educa tion's rights to academic freedom for the purposes of being critic and conscience of society, these freedoms only go so

far. I ask higher education to be far more diligent in researching its own practices. Higher Education researches every other entity in the world, and uses its research data to advise on change. I think that the same logic should be applied to whatever higher education promises on our behalf with respect to sustainability. In particular, I think that higher education needs to actively research the concept of higher education for sustainable development in order to understand what this concept is, what the concept means to higher education, and what promises it should be making. *What do you think?*

Perhaps the reason why higher education is in such a mess about education *for* sustainability is not because those at the top lack the skills to think critically, but because they lack the disposition to do so.

Critics of Plan B are quick to point out that there is no guarantee that critically-thinking citizens will make sustainability-appropriate decisions in life. Perhaps they will simply make personally- or family- favourable decisions, more astutely. One thought that helps me to make progress in this conundrum is that the more we find out about critical thinking, the more complex it becomes; just like sustainability. At one level, something either is sustainable, or not; and thinking is either critical or not. But as we delve more deeply into questions like where and how we take holidays, the plot thickens. For some, sustainability is not a thing to be measured but a frame through which things can be viewed. One version of this places sustainability as post-political in the sense that it is not contestable. (As I said above, higher education cannot really be 'for' un-sustainable development). But nothing is beyond contestation for critical thinkers. Critically thinking students will not only understand the hidden messages in their higher education teaching, they will also unpick sustainability, the promises made by their higher education institutions and much else. I hope that they will also explore the nature of critical thinking itself. Perhaps they will come to the conclusion that I have come to. The importance of critical thinking may be just as much about the disposition to think critically as having the skills to do so. Seeing sustainability through the frames provided by others is so much easier than finding your own way to explore this complex paradigm. Critical thinking in this context demands more than knowledge and skills; it requires perseverance in the face of apparently insurmountable obstacles. Perhaps the reason why higher education is in such a mess about education *for* sustainability is not because those at the top lack the skills to think critically, but because they lack the disposition to do so. What do readers think about the difference between having the skills to do something, and having the gumption, self-efficacy, or determination to see it through? *Where does the too-hard basket fit in your way of doing things?*

Perhaps the critics of Plan B are right. Perhaps Plan B will not save the planet or achieve 'sustainable development'. But perhaps helping higher education students to develop the skills *and* dispositions to think critically about their place in their world is the best that higher education can do, and perhaps more than we are doing at present.

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MOOCs and Educational Sustainability? An educational developer's perspective

Angelica Risquez

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Introduction

This article explores the author's views and open questions on the potential use of different open educational approaches to promote educational and professional sustainability. The debate is contextualised around my personal experience in relation to open structured non-accredited education opportunities for continuous professional development. This offers a contrast between open education models that focus on scalability versus those that focus on community and connections.

Towards open pedagogies

Education for Sustainable Development is about enabling us to constructively and creatively address present and future global challenges and create more sustainable and resilient societies (UNESCO[1]). In order to address this challenge, promoting educational sustainability is crucial. This requires consideration of open pedagogies, our legacy as teachers, our engagement with communities and society, and lifelong learning (including digital capacity). In this sense, the concept of 'lifewideness'[2:1], offers interesting insights into how a 'lifewide education could enhance a university's ability to recognise and value learning and personal development that is essential for survival, success and personal fulfilment in a complex modern world'. As we consider the challenge to provide educational opportunities that are based on personalisation, collaboration and informal learning, open education raises to the forefront. In 'The Future of Learning is Lifelong, Lifewide and Open'[3], Christine Redecker reminds of the massive power shift from institutions to the learners that we are currently witnessing. This in turn poses several challenges including: unbundling institutional functions and practices relating to the provision of educational opportunities; opening up curricula, by concentrating more holistically on competences, instead of knowledge; and validation of non-formal and informal learning.

This article aims to offer some insights into the experience of an educational developer approaching open educational opportunities for continuous professional development, and the role that different models of open courses can potentially play around this. In order open the debate, I go on to discuss here a small personal experience in relation to open structured non-accredited education opportunities for continuous professional development. This offers a contrast between open education models that focus on scalability (as Massive Open Online Courses or *MOOCs*) versus those that focus on community and connections.

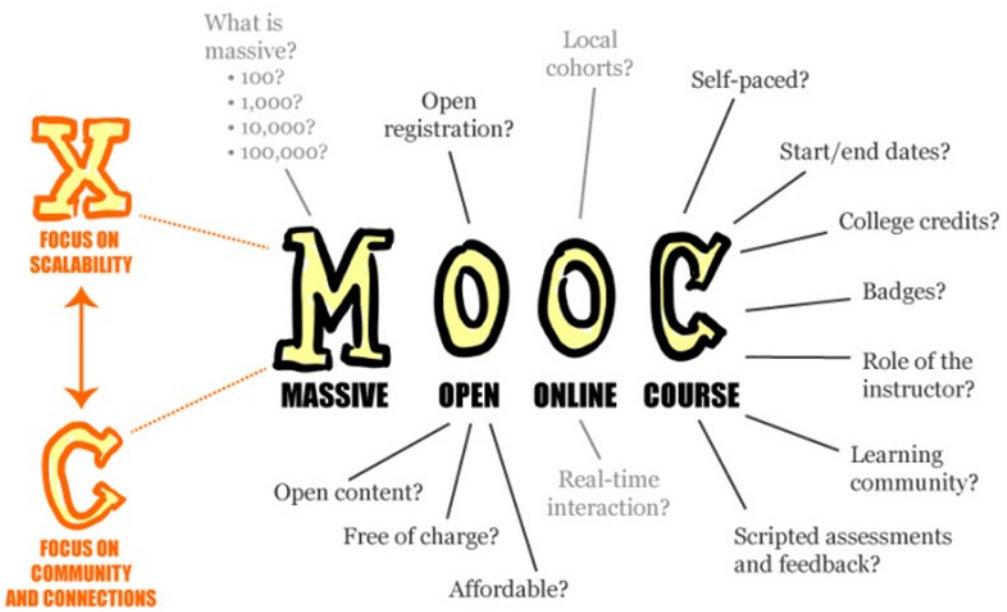
eMOOCs vs Creative HE

The headline grabbing explosion of Massive Open Online Courses (MOOCs) in the last few years have provided much inspiration around their possibilities for providing open educational opportunities for all. The online course model seems obsolete in many ways in comparison with the MOOC, as in table 1.

Table 1. Differences between a MOOC and an Online Course Adapted from Chattopadhyay[4]

Online course	MOOC
Focuses on content	Focus on context. Good content is a prerequisite to creating a MOOC but what keeps it going is dynamic building up of context around the content.
Close ended with static context	Not static, evolves dynamically through learner participation, creation of user-generated content and collaboration.
Assigned to learners, typically by the organization they work in. Sometimes, learners will sign up voluntarily for a degree or a diploma.	Learners come together voluntarily to form cohorts and groups. MOOCs have the potential to give rise to Communities of Practices or enhance the learning within an already existing CoP.
Either bought off-the shelf or custom built.	MOOCs do not always require custom-built content to set up unless the need is very specific. MOOCs on various topics can be set up using OERs and other available content from the net. The content can be replaced/updated quickly because a well-designed MOOC should ideally be based on the principles of micro-learning
Designed by learning designers and disseminated to the learners.	Flatten the world of learning by bringing everyone on the same plane. A learner can become a facilitator and vice versa. The roles blur making learning a democratic process rather than a hierarchical one.
Do not require digital skills beyond the ability to take the course online and attempt multiple-choice questions.	Require online collaboration and facilitation skills. Participating in a MOOC is a two-way process—participants are consumers as well as creators.
Take place within the boundaries of a classroom	Enable building of personal learning networks that fosters "weak ties" among unlikely individuals opening the door to innovation and learning.
Built around pre-defined objectives and may or may not cater to just-in-time learning.	Build on the principle of just-in-time, "pull" learning empowering the learners and treating adult learners—well, like adults.

Since the most prestigious US universities joined the MOOC movement around 2012, these have received a huge amount of attention, paired with equal expectations that they would radically transform higher education as we know it. Five years on, it is obvious that the revolution has not materialised, and the practice of MOOCs has developed in diverse directions. One of the main divergences stems from the focus on the 'M' bit: is the course geared to taking over the world through scalability (these have come to be known as xMOOCs) or on the contrary, is the focus placed on a social learning, requiring (obviously) a level of human interaction (cMOOCs)?



MOOC poster April 4, 2013 by Mathieu Plourde licensed CC-BY on Flickr, explores the meaning of "Massive Open Online Courses" aka MOOCs.

I really buy in the idea of dynamic user-generated content, so in principle yes, I want to consider the potential of MOOCs within my own professional development and my teaching (potentially asking my participants to engage with it as part of a flipped classroom approach), so I am willing to be convinced about their potential for contributing to educational sustainability. When I realised that the 2017 International MOOC summit (where the CEOs of the main MOOC platforms were to meet) was to be hosted in my native hometown, a bare 10 minutes walk from where a grew up, I decided that it was a sign of destiny (ok, the perspective of my mum's cooking may, only may, have also had something to do it!).

While planning to attend to this conference, I was in discussion with Prof Norman Jackson, who was leading our Contemporary Issues in Higher Education summer module (#TL5003) in our academic development programme. Norman has a vast experience in creative pedagogics, lifewide learning and, amongst many other endeavours, leads #CreativeHE (in collaboration with Chrissi Nerantzi and other like-minded colleagues), a community of creative academics which (they might not agree with this) could be somewhat categorised as the cMOOC type. The next iteration of the course, which was aimed at promoting creative pedagogical approaches in our educational practice, was running during the same week, so I signed for the experience in the interest of authenticity and why not, a bit of fun CPD.

DAY 1 & 2 International MOOC summit

Expectations were high for the main keynotes in Day 1 and 2. Sir Timothy O'Shea, principal in University of Edinburgh, opened the conference keynote and offered some interesting insights. Many were on the positive side: despite evangelists having said that the MOOC would be the end of textbooks, they have actually been a driver for more textbooks being produced in his institution. This was counterbalance with the stark statistic that completion rates of (their extremely expensive) MOOCs are only around 6%. FutureLearn claims to be a catalyst of the digitisation efforts of universities, and one way of doing this is through online degrees with open pathways. As an example, the platform has partnered with Deakin to pioneer a full MA degree through Futurelearn, some of it paid and some through MOOCs. In other cases, MOOCs are compensated with university credits. In order to facilitate flipped classroom blended approaches, they are currently piloting a space with looks pretty much like a standard learning management system… A more complete overview of the themes was curated in the #EMOOCS2017 twitter feed, but in general, I got the clear picture that after the MOOC hype, economic sustainability of these platforms and return on investment is the major elephant in the room. Rick Yale from Coursera claimed in his keynote that 'the future of the university will happen in an ecosystem of lifelong learning', but it remains to be seen if MOOCs will effectively survive to be a part of it.

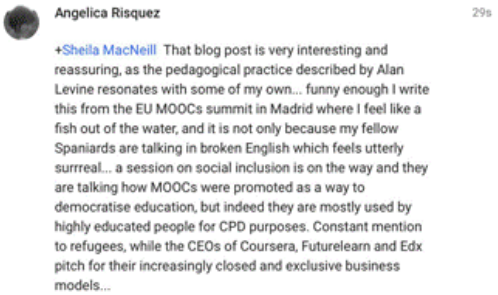
Simon Nelson from FutureLearn quoted Inside HE (2017): 'Gone are the promises about revolutionizing HE or driving most colleges and universities out of business. In their place is a pledge to work with colleges on how to offer education online and internationally'.

Day 1 of #CreativeHE

In the meantime, Day 1 of #CreativeHE had started. I found Google + (where the community is hosted) to be very confusing to use at first. I attempted to engage with the tasks, which invited us to produce creative artefacts to answer to specific challenges, but I found that I was 'piggybacking' in others' creativity (with pictures of murals on the streets) rather than challenging myself with my own, but nevertheless, appetite was opening and I was slowly moving from the internal talk of 'I don't really have time for this', to one of interest and engagement.

I found the themes that emerged in my real (i.e conference attending mode) and online world (in #CreativeHE) fed into each other nicely (lifelong and lifewide education, the sustainability of the current educational model, and creativity as a 'must' for survival, rather than a 'nice' addition). The fact that the conference was hosted so close to home (this is, the one where you revert to your teenage bad habits) helped to contextualise things for me in the building where I used sneak in to find a place to study while being an undergrad, I walked back home to my mums' lovely cooking and to spend time with my family and friends, and in turn, I found that progressively, I could incorporate discussions and memories into my creative endeavours for the #creativeHE tasks. It was all a nice experience, 'in the moment' integration of living and learning on the go.

Resources shared in #CreativeHE also informed my growing understanding of the MOOC phenomenon. I was also deepening my critical lenses into this world through posts such as Alan Levine's 'The future will not be powerpoint (ed), neither MOOCed', and finding reassurance in my remit of power as educational developer and citizen in this world…


Angelica Risquez 29s

+Sheila MacNeill That blog post is very interesting and reassuring, as the pedagogical practice described by Alan Levine resonates with some of my own... funny enough I write this from the EU MOOCs summit in Madrid where I feel like a fish out of the water, and it is not only because my fellow Spaniards are talking in broken English which feels utterly surrreal... a session on social inclusion is on the way and they are talking how MOOCs were promoted as a way to democratise education, but indeed they are mostly used by highly educated people for CPD purposes. Constant mention to refugees, while the CEOs of Coursera, Futurelearn and Edx pitch for their increasingly closed and exclusive business models...

DAY 3 International MOOC summit

On Wednesday I targeted the discussion panel on social inclusion and MOOCs chaired by @vincentzimmer, which highlights digital exclusion, and were Wi-Fi was (arguably) referred to as a 'human right'. The starting point was that, while MOOCs have been argued as a means for democratising access to education, experience to date has shown that it tends to be used by those with a good level of educational attainment for CPD purposes, rather than those most in need. As a response, the EU has developed a catalogue of initiatives in MOOCs that facilitate digital inclusion (http://moocs4inclusion.org/). This research has revealed that we know very little about the real impact of MOOC initiatives on digital integration. This is not to take away from the potential advantages provided by this model of education. For example, interesting insights followed into gender access. Vincent Zimmer reported their experience breaking cultural barriers to female education in refugee families, where at home MOOC education is making it socially acceptable. Of interest was also the discussion that followed about 'educational colonisation' of MOOC platforms based on the northern hemisphere, and the call for partnership approaches as an alternative. The argument is that they are many people that are taking MOOCs now that would not have access to education at all otherwise. The flip side (as argued by Tim O'Shea) is that the progressive reliance on online education poses a greater digital divide in many populations. In conclusion, I left with the feeling that refugees were indeed a focal point through the event, but were somewhat opportunistically used to justify the social value of MOOCs in tokenistic ways, while CEOs of Coursera, FutureLearn and Edx presented their (increasingly excluding) business models in order to sustain the MOOC movement.

Day 3 #creativeHE

In the meantime, in #CreativeHE provided a catch-up day, it coincided with the tragic events of the terrorist attack in Manchester which left everyone with no desire for creativity or fun. As recommended though, I read Browns (2009) typology of adult learners, which pretty much validates ANY type of activity that we love as valuable learning play. We were also invited to join the relevant #LHETchat which happened to deal with the issue of creativity in HE later that evening.

DAY 4 International MOOC summit

On Thursday, I attended a MOOC design session that resonated strongly with the experience that I underwent through the Epigeum Blended Learning course design: reinforcing the delivery of information, video production and knowledge testing (strongly relying in T&Qs). There was not much scope really for flexibility or creativity that I could see… reinforcing this view of MOOCs (at least the 'x' type) as relying in structured content dissemination. While sitting right next to an expert on MOOC production, I really tried my best to introduce the agenda of creativity and scope for other pedagogical approaches. He gave me a look that made it obvious that his neurological pathways were too settled in a certain direction…

Video posted in my blog (https://angelicarisquez.wordpress.com/2017/06/14/emoocs-vs-creative-he/)

My candid concerns

On the way back home I reflected on this pretty intense CPD experience. It was certainly interesting to go through both experiences (#CreativeHE and the eMOOCs conference) at the same time as my understanding progressively formed in multi-layered dichotomies: directional (bottom-up creativity VS top-down content delivery); economical (free and 'do-it-yourself' community in Google + compared to exclusive powerful platforms for a selected few).

My first concern is how open and reusable MOOCs actually are. There is a large body of literature in the marketization of higher education, which advocates for democratization of education and the need for making it more available and accessible to the global population. The big headline-grabbing digital 'story' in recent years around MOOCs has muddied the waters somewhat in relation to the 'open' project, leading to despondency among originators about the reinterpretation of 'open' as 'free' or 'online' without some of the 'reuse' possibilities originally envisaged. The subject is explored by Martin Weller in his book, 'The Battle for Open'. Weller[5:3] states: *It seems that the narrative around openness is being usurped by others, and the consequences of this may not be very open at all*. That is not to say that MOOCs are not reusable. Potentially, there may be some MOOCs that can be taken apart and broken down into their constituents, thus adding significantly to the design of teaching. However, this is something that I have never done or seen done. MOOCs are not a reference source that I tend to dip in when looking for resources to prepare my teaching. This seems to be pretty much the case for my fellow educators: in a study I carried Risquez et al[6] , online courses/MOOCs/Slideshare accounted only for 6% of the sources used to look for open educational resources to reuse. So the question for discussion is how reusable MOOCs actually are, so they can effectively contribute to sustaining education.

My second concern is about flexibility. At this point, let me hold my hands up and admit that I have enrolled on several MOOCs, only to drop out without completing a single assignment. Personally, the biggest issue I have with MOOCs is the fact that I have no say about when and how they run. Sadly, no longer a student and not quite at retirement age, I struggle to find the time to take part in a MOOC which demands several hours of my attention each week, or run at highly inconvenient times of the academic year. Obviously, my fellow academics are equally stripped for time, so the second question is how to accommodate an externally running MOOC within the timing of an academic program.

Finally, I hold a fundamental concern which challenges the freedom of completing the process in which MOOCs are based. Chattopadhyay actually states that this is perhaps one of the fundamental reasons why MOOCs have seen such popularity: It is immaterial whether everyone is completing all the MOOCs they attend or not. The fact is people are signing up, voluntarily, and taking what they need. The power is back in the hands of the learners. The final message from my CPD experience was one of empowerment and freedom: no hype will ultimately decide what kind of educator we will be in the future, the future of education is in our hands (I hope so).

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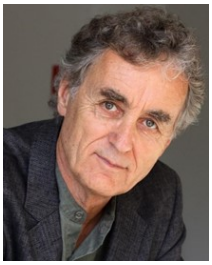
Image credits: www.yourtrainingedge.com/whats-the-difference-between-a-mooc-and-an-lms/
http://www.etrainingpedia.com/develop-your-skills-and-varied-pleasures-with-mooc/

Deep Ecology: Educational Possibilities for the Twenty-First Century

Fritjof Capra



Fritjof Capra is a scientist, educator, activist, and author of many international bestsellers. He is a founding director of the Berkeley-based Center for Ecoliteracy, which is dedicated to advancing ecology and systems thinking in primary and secondary education, and serves on the faculty of the Amana-Key executive education program in São Paulo, Brazil. He is a Fellow of Schumacher College, an international center for ecological studies in the UK, and serves on the Council of the Earth Charter Initiative. Amongst his many books are The Turning Point (1982), The Web of Life (1996), The Hidden Connections (2002), EcoManagement (1993), and coedited Steering Business Toward Sustainability (1995). His most recent book, The Systems View of Life (Cambridge University Press, 2014), presents a grand new synthesis of this work—integrating the biological, cognitive, social, and ecological dimensions of life into one unified vision. The main focus of Capra's environmental education and activism has been to help build and nurture sustainable communities. He believes that to do so, we can learn valuable lessons from the study of ecosystems, which are sustainable communities of plants, animals, and microorganisms.

The idea and definition of sustainability

The idea of sustainability was introduced in the early 1980s by Lester Brown, the founder of the Worldwatch Institute, who defined a sustainable society or community as one that is able to satisfy its needs without diminishing the chances of future generations. In 1987, the Brundtland Report of the United Nations used the same definition to present the notion of sustainable development, which since then has been very widely used. In the Brundtland Report, we read, "Humankind has the ability to achieve sustainable development to meet the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 2). These definitions of sustainability are important moral exhortations. They remind us of our responsibility to pass on to our children and grandchildren a world with as many opportunities as the ones we inherited.

However, when you look at it, this definition of sustainability it does not tell us anything about how to go about it. How do we actually build a sustainable world? How do we build a sustainable community? So I think what we need is an operational definition of ecological sustainability, one that gives us a clue of what it's all about and how we go about it. The key to such an operational definition is the realization that we do not need to invent sustainable human communities from scratch but can model them after nature's ecosystems because **nature's ecosystems are, in fact, sustainable communities. Ecologists use the term community as a technical term. In scientific ecology, ecosystems are communities. They are communities of plants, animals, and microorganisms, and their outstanding characteristic—in fact, the outstanding characteristic of the whole biosphere— is their inherent ability to sustain life. Therefore, a sustainable human community must be designed in such a way that its ways of life, its businesses, its economy, its physical structures, its social institutions do not interfere with this ability of nature to sustain life. This is the key point: We should not interfere with nature's inherent ability to sustain life**. This definition of sustainability is operational because it implies that the first step in our endeavor to build sustainable communities naturally must be to understand how nature does it, that is, to understand the principles of organization that ecosystems have developed to sustain the web of life. This understanding is what I call ecological literacy.

In the coming decades, the survival of humanity will depend on our ecological literacy, on our ability to understand the basic principles of ecology and to live accordingly. Ecology has many facets. You can study ecology as a science or as a philosophy, there's a politics of ecology, there are technologies that are ecologically oriented, and so on. Let me just summarize the basic components of ecoliteracy…... The first is the understanding of the principles of ecology, experiencing them in nature and thereby acquiring a sense of place—the ecological dimension. The second dimension is incorporating the insights from the new understanding of learning that emphasizes the child's search for patterns and meaning [the experience of context…….and context is a pattern of relationships between the thing or event under question and its environment]. The third component is implementing the principles of ecology to build and nurture a learning community. And the fourth is integrating the curriculum in this community through project based learning.

Source

Capra F (2013) Deep Ecology: Educational Possibilities for the Twenty-First Century The NAMTA Journal Vol. 38, No. 1 Winter 2013 page 216 Available at: https://files.eric.ed.gov/fulltext/EJ1078054.pdf

Field Trip to Swaraj University, Udaipur, India

Norman Jackson

In my searches for novel educational practices that embrace the lifewide learning and learning ecology philosophy, I came across Swaraj University, near Udaipur. I was so intrigued by it that I wrote to one of the facilitators Rahul Hasijah and he kindly invited me to visit them to experience first hand their approach to lifewide learning. I inherited my love of fieldwork from my life as a geologist so it was an easy decision to accept his generous invitation.

Swaraj University is located in the hills 12km south of Udaipur in NW India. My journey along narrow twisting roads through sparsely vegetated hillsides helped prepare me for the rural setting of the campus at Topovan Ashram. A rusty gate with a welcome home sign signalled I had reached my goal and I was met by a small group khoji's (student learners) and Rahul Hasijah (right) who was the chief facilitator for this group of students and my host.

The idea of university conjures images of a large campus for thousands of students and academics providing higher education that is recognised through degrees. But Swaraj is not like this: it's more like a commune in the sense of a small closely knit community of people who share common beliefs about education and learning that is relevant to sustaining life in rural communities. The idea of a learning ecosystem seems more relevant and useful to me.

The hills surrounding Swaraj are quite barren, about 70% is rocky outcrop with little soil and it felt very much like the terrain I had worked in as a geologist in Saudi Arabia. It's not easy to sustain life in this inhospitable environment but somehow the local people with their herds of goats and small areas of cultivation, managed to. Looking back from the hills the campus looks like an oasis thanks to Mr Mitra (a former Dean of Education at an Agricultural College) who came to live here 28 years ago cultivated and irrigated the land growing vegetables, bananas, dates and papaya and more.

I was welcomed into this community of 'seekers' (khojis [learners] and facilitators) and during the week I had many conversations that demonstrated their commitment to the ideals and philosophy of holistic learning and concerns for a sustainable world in tune with the needs of urban and rural Indian communities. Each day we met as a community for breakfast, lunch and dinner (and sometimes afternoon tea!) when discussions covered all sorts of topics. The group also periodically met to share progress and to review and reflect on where they were and how they were feeling about their projects. There seemed to be little distinction between khoji's and the facilitators.

Swaraj has none of the features we typically associate with a university. It lacks the monolithic bureaucracy, centralized admin systems, hierarchical management, disciplinary academic structures, research, IT and other resource infrastructures. Nor does it have the QA systems and regulatory procedures. But it is an organization that is committed to helping people to learn and develop themselves. Instead it has belief and value systems and culture and educational practices that are based on a philosophy of self-governance – Swaraj. Its scale is that of a family with a culture of shared beliefs rather than a diverse complex society with competing goals, which is a university. As a family everyone knows and cares for each other. In my view Swaraj is best appreciated as a learning ecosystem devoted to promoting and supporting particular forms of self-regulated learning.

In conversation, Rahul identified what he considered to be the key features of the community's ecology for learning as:

The focus on head, heart and hands. We help learners appreciate that learning through doing and experiencing what they do involves the practical, the cognitive and the emotional dimensions its not just an intellectual process.

Learning is both a personal and collective matter – your decisions and acts impact on others. As they interact with the world, their families, working in communities they become more aware of their connection to a bigger self. There is a lot of peer to peer learning. We expect khojis to motivate and help each other.

The idea that learning is connected to living a healthy life with a concern for our environment and how it can be sustained. Over time khojis begin to question the value of money and what constitutes a resource.

Viewing learning as a gift and by helping others to learn and live we are giving the person a gift. Our concept for mentors is part of our gift culture. They don't get paid - they give their time, knowledge and skills to help others learn.

Teaching as facilitation. Facilitators are as much a part of the social learning process as the khojis. The role of facilitation is not about holding the hands of khojis but of supporting and challenging when it is necessary.

A project-based approach to developing self-directed learners

The reason I had come to Swaraj, was to learn about the context (without understanding the context its hard to understand the approach) and experience how Swaraj encouraged learners to develop themselves as autonomous self-directing learners. My particular interest was how the pedagogical practices being used enabled khoji's to create their own ecologies for learning and achieving. Obviously, I was limited to the observations I could make during the week I had chosen for my visit. During this time 7 khoji's in the first year of the programme were part way through their second 6 week 'Khoji – Meet'. The activity they were undertaking was a self-managed project whose purpose was to interact in some way with the world outside the campus and develop a (new) perspective for themselves of the world they were interacting with. They had to decide on the output from the process and present their interaction to peers. I was not able to see their projects from start to completion but I saw enough to appreciate the learning through doing process.

Khojis and facilitators had organised themselves into five project groups.

Gp1: One khoji had chosen to try to interact with people who lived in the hills behind the campus. She was being helped by an experienced facilitator and together they were trying to gain a better understanding of how the people who inhabited the inhospitable landscape managed to survive asking questions like, What does everyday living look like through their eyes? How do they sustain themselves and their families? The student and facilitator had encountered people in the fields and on the roads and had entered into conversations but it had become increasingly difficult to engage people who were suspicious of anyone they didn't know. She and the facilitator were documenting their experience in notes and photographs. The outcomes from this project to understand people and how they lived in the landscape were to be shared with the group and preserved for future generations of khoji's in a photographic documentary.

Gp2: A second group of two khoji's had decided to interact with people in the town through a stall they would set up selling artefacts that they had made, including earings made from shells and beads, wristbands and cotton bags.

Gp3: Another khoji was undertaking a project on listening. She had decided to engage shopkeepers as her subject and she wanted to engage them in conversations about their anxieties and fears. She had prepared herself using role play. The facilitator was engaged in his own project, he was going to stand around with a placard inviting people to talk to him about anything they wanted to talk about. Both people were interested in how they coped with their own fears of interacting with people they did not know in these highly personal ways.

Gp4: A fourth group chose the idea of engaging with the outer world through music. Using a range of instruments (hand drums, guitar, finger symbols and a one stringed instrument called an ectara (which means one string) and voices they experimented with spontaneous rhythms and chants and replicating existing songs. They believed that people who are not trained musically can come together and make music. They intended to perform in public after a couple of days composing and rehearsing and see what responses they received from their audiences. During rehearsals it became clear that there was a tension between the desire for creative self-expression (this sounds nice and feels good to me) and the need to consider the audience and what sorts of sounds/music they would be receptive to. One khoji in the group had given considerable thought to the project and made extensive notes. She raised many possible ideas and the negotiation that followed was to acknowledge the wealth of ideas but encourage a focus on one idea in order to achieve the goal. During the day I spent with the group there was much experimentation but no decision on what they were going to play when they interacted with people off campus.

Gp5: The final group of two khojis wanted to interact with children. They were both interested in 'facilitation', One of them had recently facilitated a workshop for about 50 people at the Learning Society conference and the other khoji had several years of experience as a facilitator working with an organisation called 'play for peace.' They chose to work with the 'rak pickers', children who lived in one of the poorest areas of Udaipur who picked over the rubbish and recycled stuff that had been thrown away like plastic bottles. The two khojis were being helped by a former khoji/part time facilitator who had set up an informal space within the rak picker community to engage children and adolescents in interest-driven informal learning activities.

I spent an afternoon with this group and witnessed one of the khojis facilitating a 1 hour session using play with a group of around 26 children from about 3 to 12, boys and girls. His facilitation was masterful and the kids responded with enthusiasm and joy to his games. The other khoji tried to work out how she would engage the kids on her next visit. She found out they liked painting and was considering a session where she used painting as a medium to engage them to explore the idea of community.

Ecological perspectives on this way of learning

The reason for my visit was to try to understand how Swaraj facilitated the development of autonomous, self-directing learners in the context of their mission to develop social entrepreneurs. Clearly, I was only able to see a snapshot of a substantial programme and I could only observe what was happening in that week. However, my working hypothesis is that the best way to develop learners as consciously competent creators of their own ecologies for learning and achieving is primarily through projects that they conceive, design and implement themselves taking ownership and responsibility for everything in their learning project. Fortunately, the type of learning processes I was able to witness was the type of process I was hoping to see.

From my field observations I was able to see that a simple brief – *interact with the world outside the compound and pay attention to what you are learning through the experience*, provided the catalyst for imagining, self-organising, discussion and decision making, planning and preparation and then execution of a strategy in cultural/social situations that were unfamiliar, uncertain and unpredictable. Some of the contexts being worked in were quite challenging and required a degree of courage. Perhaps also there was a level of naivety in expectations of what could be achieved, but perhaps this was also necessary as it

provided a good basis for learning from the experience. The involvement of experienced facilitators or former khojis with particular knowledge and skills was instrumental in enabling khojis to make progress. In the short time I was there, projects were executed to varying degrees of success and some had yet to be fully implemented. Within the process facilitators encouraged participants to understand themselves and be aware of what was happening ie they were instrumental in developing conscious competence.

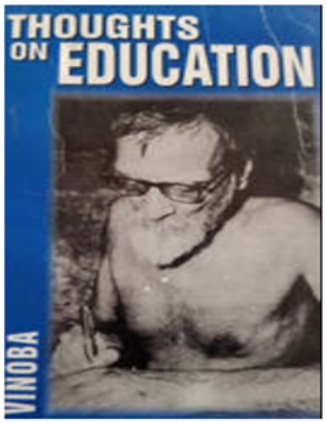
From khojis' descriptions of what they had been doing I knew I could relate their thinking, doings, relationships and interactions to my framework for learning ecologies but I wanted to encourage khojis to recognise that learning and practice were intimately bound up in an ecology that they created/co-created.

The opportunity came when I was given the chance to facilitate a 90min workshop on the fourth day of my visit. I decided I would introduce the idea of learning ecologies, provide my own example (see story below) and invite participants to use the framework to reflect on their projects.

Notwithstanding the difficulty of working across cultures and languages the exercise seemed to work and the four groups that were involved were all able to tell a story using the ecological framework to provide a structure to the story (stories were recorded on video). The general consensus was that there was value in the ecological framework as an aid to reflecting on and analysing a complex learning experience

What follows are two articles written by Rahul, that describe in more detail the philosophy and pedagogical practices of Swaraj University, written by my kind and generous host, Rahul Hasijah. The second article in particular provides a glimpse of the way in which Swaraj supports the idea of learning to sustain a complex world – a world that is culturally and materially close to the world these learners inhabit.

The Swaraj approach has been influenced by the educational philosopher 'Vinoba' and Rahul's parting gift to me was a book by Marjorie Sykes 'Thought's on Education', which is a translation of Vinoba's essays published in Shikshan Vichar (1956). Vinoba, a contemporary and friend of Ghandi, was a scholar, thinker, writer and advocate for social reform. His thinking on education is linked to social reform in the wake of India's independence. It amounted to a rejection of the British-based education system. At the heart of Vinoba's search for Nai Talim ('new education') is the idea of self-reliance, self-sufficiency and self-governance which are also at the heart of the Swaraj approach to education and learning.



It seems to me that education must be of such quality that it will train students in intellectual self-reliance and make them independent thinkers. If this were to become the chief aim of learning, the whole process of learning would be transformed.. a student would be taught that he is capable of going forward and acquiring knowledge himself.. it is a mistake to think that life knowledge can be had in any school. Life knowledge can only be had from life. The task of school is to awaken in its pupils the power
The purpose of learning is freedom and freedom is another word for self-reliance. Self-reliance means freedom from dependence on others, or any external support.
Self-sufficiency, then has three meanings. The first is that one should not depend on others for one's daily bread. The second is that one should have developed the power to acquire knowledge for oneself. The third is that a man should be able to rule himself, to control his senses and his thoughts. p31

In line with these ways of thinking Vinobe identifies a number of features of Nai Talim ('new education')
1 Teachers and students must regard themselves as fellow workers. 'The major need is for the teacher and student to become work partners and this ca happen only when the distinction between the teacher and 'teaching' and the student and 'learning' can be overcome' p62
2 Knowledge and work are both forms of the same thing and it is impossible to distinguish between a knowledge process and a work process. p62
3 NT does not discipline students it gives them complete freedom p63
4 NT is a philosophy of living its an attitude to life that we have to bring to all our work p69
5 Everyone ought to do manual labour for his food p73

All these ideas can be seen in the Swaraj learning ecosystem but are they relevant to UK higher education? I would say, with the exception of the 5th idea, they are. The core idea of a project-based, peer with peer collaborative learning underpinned by teacher and mentor facilitators is highly relevant to the enterprise of enabling learners to sustain themselves for learning in a complex world and for helping to sustain that world.

Imagine a University with No Classrooms, No Teachers, No Degrees, Curriculum or Exams Founded on Principles of Sustainable, Self-Designed & Self-Determined Learning

Rahul Hasija

Rahul is a writer and storyteller and works as a lead facilitator at Swaraj University. Part of his work is to design and implement the programme, develop facilitation tools, create safe spaces for the learners to share, hold the space, host sessions on team-building, cooperative games, circular dances, reconnecting with the ancestral roots, rethinking development and connecting with nature. Community building, gardening, bird watching, making herbal products, theatre and dance are his key areas of interest and engagement. This article is adapted from a previous article I wrote [1]

What if you walk into a university to find out that there are no classrooms, no teachers, degrees, curriculum, and exams?

Above all, you even see people learning joyfully in their own ways, involving their head, heart and hands, doing in their lives what interests them and what they care about most.

A university (Latin: *universitas*, "a whole") has come to mean an institution of higher education and research which awards academic degrees in various academic disciplines. The word "university" is derived from the Latin *universitas magistrorum et scholarium*, which roughly means "community of teachers and scholars.[3]

Our concept of university is a place where learners and teachers come together to learn, research and experiment. The word 'University' is used to challenge the notion of what a university has come to mean. Swaraj University does not offer any degrees, diploma or certificate, nor does it have or require accreditation from anyone. Rather than certificates Swaraj helps learners (learners at Swaraj are known as khojis i.e. seekers) build their learning portfolios, which comprise their experiences and achievements, actual work models and recommendation letters from mentors, peers, and feedback council.

Swaraj University is located at Tapovan Ashram 15kms from Udaipur city in the Rajasthan province of NW India. The University was founded in 2010 when it launched a 2-year programme that is partially structured and partially co-created with khojis to enable them to become self-designed learners and whole, happy and healthy beings.

Imagine if the youth of today...
Were equipped with the skills to deal creatively with complexity, uncertainty, collapse and change in the world?

Had a personal vision of and commitment to building healthy and resilient communities and lifestyles?

Were able to put their ideas and dreams for social change into real action?

Swaraj University was founded in 2010 as a two year learning programme for youth. The focus of the programme is on self-designed learning and on green entrepreneurship, including exploration of basic business skills within the context of ecological sustainability and social justice.

This self-directed learning process invites learners to identify their hearts' visions and engages them in developing the skills, relationships and practices they need to manifest those visions.

The programme is as much about developing the capacities and confidence we need to create and pursue our unique learning paths as it is about strengthening the leadership capacity and right livelihood opportunities in communities.[2]

The concept of swaraj, or self-rule, was developed during the Indian freedom struggle. ... As Gandhi states, "It is swaraj when we learn to rule ourselves." The real goal of the freedom struggle was not only to secure political azadi (independence) from Britain, but rather to gain true swaraj (liberation and self-rule). Swaraj University uses this concept as a foundation principle for educational and pedagogical cultures and practices to support and enable self-directed and self-managed learning.[5]

Educational mission

Since its inception in 2010 Swaraj University has provided a platform for young people to identify their hearts' vision and engage them in developing the skills and practices they need to turn their vision into reality. In this way Swaraj University nurtures the creativity of its learners and empowers them to bring their ideas into existence so they can make a positive difference to the world.

Our khojis come from all over the country. They are also from varied socio-economic backgrounds and hail from metropolitan cities, semi-urban as well as rural areas. The first cohort of khojis joined Swaraj in 2010 and in the last 6 years, over 100 khojis, more than 250 mentors, and countless other supporters from all over the world have been part of the programme while the idea has reached many more in some way or the other.

The question might arise as to why we need a programme for self-designed learners. All of us have experienced self-designed learning and we might be ready to walk our own unique paths, but several factors stop us: fear and doubt, lack of mentorship or guidance, finding supportive co-travelers, socio-economic responsibilities or simply not knowing how to start.

At Swaraj University, we support and enable khojis to start, create and reclaim self-designed learning processes and projects and provide a safe space for learners to walk their own path with other co-travelers. We engage them with many unlearning challenges to help them out of their comfort zones and build deeper perspectives for regenerating self, soil and society.

We also connect khojis to a wide network of individuals and organizations that provide internships, mentoring and work opportunities, support them to discover and translate dreams and passions into real and sustainable livelihood possibilities. The programme also involves building skills like critical questioning, self-awareness, effective communication, goal setting, project planning, self-evaluation, managing multiple perspectives and more.

A unique 'institution'

One frequent compliment we have received from khojis is that this place offers them acceptance that they struggle to get outside, and that is one of the biggest reason youth have been attracted to Swaraj. Unfortunately, due to pressures of society, family, media, and education system, youth today are devoid of acceptance at every level. In the tender age of 15-27, a lot changes in the life of a youth which they need to cater to – there are struggles with parents on career & livelihood; that is when they begin tryst with relationships and love; there are a lot of bodily changes, one also begins to question their role in the society, or find purpose of life, or try to understand one's own sexuality. Unfortunately, our education system and none of the universities focus on all these aspects of life. The only focus is on career and livelihood while a lot of youth today struggle with low self-esteem, and if unnoticed and uncared for, they carry the unnecessary emotional baggage with them.

Making music from waste

At Swaraj, apart from understanding one's interests and developing and practicing life skills, a lot of the focus is on holistic learning; which means it is inclusive of understanding self, working with others including the local community, harmonizing relationships at home and society, and understanding body and emotions, and much more. Workshops on Non-Violent Communication (NVC), Understanding, Gender and Sexuality,

Dance Movement Therapy, Jeevan Vidya, and living together in a community at Swaraj have helped khojis find balance in their lives. To cite an example, two of our khojis at separate points in time had to leave the programme to spend time with their ailing fathers. Any other place of study or work would have not counted or valued this experience, but here, as a community, we did it and rather encouraged them to hold that period of time as a learning time. One of them, Dhaval even used NVC to bridge many gaps to heal his strained relationship with his father.

Life at Swaraj University teaches young people to be an active citizen in a democratic community. Right from deciding a day's schedule to deciding what kind of food experiments the community want to try, from resolving a conflict to sometimes sitting 8 hours at stretch in a community meeting struggling to come to a decision – all of it has help khojis build muscle to live in any kind of group – be it in a family or workspace. Democratic education has helped khojis be more tolerant, patient and learn to look at other's point of view- which is very essential in today's living.

The best part for khojis as well as the facilitation team has been the continuous evolution of the programme. It has never been the same for any khoji cohort, and nor it has been for the facilitating team. Every khoji cohort bring their own flavors, ideas and needs, thus helping the program to not be stagnant but evolve keeping everyone on toes, ready to learn new things, challenging & pushing everyone out of their comfort zones.

Table 1 Important differences between Swaraj University and a traditional university[5]

Swaraj University	*Formal university*
1. Self-directed learning where individual interests and styles are the foundation of the programme	1. Compulsory learning- individual interests and learning styles are not taken into account
2. Learner decides the amount of time he/she requires to go into the depth of the subject	2. Limited time and opportunity to understand the subject in-depth
3. Learners carry out self and peer evaluation as well as develop their own learning portfolios	3. Evaluation based on testing which creates fears, inferiority complexes and a sense of competition with others
4. Grooming of learners so that they question the current state of society and develop the commitment and practice of sustainable action	4. Grooming of learners so that they become spectators, producers and consumers for the state and corporations
5. All the learning opportunities are real and are based on understanding of local issues and their global context	5. Teaching matter and the process is disconnected from their immediate world
6. Geared towards starting one's own enterprise	6. Geared towards finding a job in the government or a corporation
7. Co-learners coming from a wide variety of backgrounds and ages that can help in bringing different flavours and learning resources to the process	7. Students separated by age groups. Students from similar age group are put together in the classrooms.
8. A sense of community and democratic co-learning environment	8. Hierarchical and authoritarian learning environment
9. Each learner will have a mentor in their area of interest and a mitra to provide guidance in the learning process	9. Larger class size, so lack of individual attention
10. Hindi and local languages are used in the learning process to bring out feelings and nuances, and to keep ourselves in contact with our cultures	10. Teaching done majorly in English, which disconnects the student from local culture

Pedagogical principles & practices

An educational concept of 'swaraj' (learners as self-determined, self-directed, self-managed and self-regulating) underpins the pedagogical practices that are used to develop learners so that they can become proactive social entrepreneurs. There are also strong elements of ecological thinking embedded in the relationships that are cultivated between the learners and their mentors and facilitators and the natural and social environment in which they are learning. For example, Khojis are also empowered to build their own support structure involving parents, peers, friends, mentors, and other people who can motivate, inspire, instigate, critique and help them through their journey.

The focus of the programme is to develop young people so that they can *create* their own 'green' ventures or social enterprises in their communities. Each person's learning programme is individualized according to his/her specific talents, questions and dreams. There is ample scope for learners to develop a multidisciplinary curriculum. There is a strong focus on apprenticeship learning, leadership development and community living. In the area of community living, learners explore healthy and sustainable personal lifestyle choices, gift culture, co-creation and democratic decision-making. Decisions regarding day-to-day functioning is done through the form of consensus, with a space for each person in the Swaraj community, be that learner or facilitator, to express his/her voice.

The structure of the programme (see below) reveals that there is an emphasis on learning, developing and applying knowledge and skills in the real world in a range of contexts linked to the idea of learning journeys in which social learning is important. There is plenty of opportunity for project-based learning, and self-directed learning is underpinned by mentors who encourage reflection on learning experiences and the results of actions. A summary of differences between a traditional university and Swaraj University is shown in Table 1.

THIS SECTION HAS BEEN ADDED FROM THE UNIVERSITY WEBSITE

Year 1

The aim of the first year is to encourage khojis to unlearn their dependence on external sources of knowledge and to engage in co-creating their self-directed learning path. Khojis also learn basic jugaad (playful improvisation), planning, facilitation, media and communication skills, as well as identify a practice area to pursue in more depth. There are various explorations and experiments to understand the meaning of Swaraj, and the core principles related to it, which are sustainability, social justice and holistic living. Khojis are exposed to different kinds of community contexts – rural villages, social movements, entrepreneurs and non-profit organisations.

The first year is divided into Khoji meets and mentorship periods. The duration of the Khoji meets is around 3-5 weeks in the first year. Between the meets is the mentorship or 'guru' period of 2-3 months each. The khojis learn with their chosen *ustaads* during the mentorship period and return to the campus for the Khoji meets, where they cross-fertilize their learning with other khojis. Khoji meets are also spaces for reflection, deepening our emotional understanding and healing ourselves from the hurt and stress caused by the System.

During the first year, khojis also go on Learning Journeys to various parts of India and get exposed to new livelihoods, initiatives and organisations which are engaged in new ways of learning and living. One Learning Journey is on cycles, without money, technology or first aid, with the aim of going to the heart of India – its villages – and learning from nature and those living in harmony with it.

Here is a typical time-table for the year 1 programme:

Gathering 1: Preparation for Self-Design Learning Programme@ Udaipur (6 weeks)
Learning Journey 1: Whole group goes to one city or area to meet various inspiring activists, artists, social entrepreneurs, and change agents (2 weeks)
Mentorship 1: Individually or in pairs (2 months)
Gathering 2: Re-thinking development, co-learning and community living with peers and through workshops @ Udaipur (6 weeks)
Learning Journey 2: Cycle Yatra to villages (10 days)
Mentorship 2: Individually (2 months)
Gathering 3: Co-learning and community living with peers and through workshops @ Udaipur (4 weeks)
Learning Journey 3: Whole group goes to either South India or North-East India to meet various inspiring activists, artists, social entrepreneurs, and change agents (3 weeks)

Mentorship 3: Individually (2.5 months)
Gathering 4: Khoji Milan and Graduation (of previous batch) (2 weeks): A lively gathering of all the batches of Swaraj University @ Udaipur. Reflecting on the year; naming practice areas for long-term study; brainstorming and networking for starting one's own social/green enterprise.

Year 2
The focus of the second year is on developing khojis as social entrepreneurs facilitated by Sandeep and Pradeep from CLIPS Foundation. The aim is to facilitate deeper learning around each khoji's emerging vision for community action. Khojis begin to develop understanding and practice in leadership, management, resource mobilization, marketing and networking skills to engage others to support their vision. They learn about the basics of swaraj entrepreneurship, starting a green business or a social initiative, fund-raising, basic accounting and budgeting, creating business plans and project management.

Here is a typical time-table for the year 1 programme:
Gathering 5: Co-learning with peers through workshop on Swaraj Entrepreneurship @ Udaipur (10 days)
Project Work 1: Making our dreams into reality: working on dream projects of choice (1.5 months)
Gathering 6: Co-learning with peers through workshop on Entrepreneurship @ Nashik (10 days)
Community Learning Journey 1 (optional): Organized by the khojis in their communities (5 days)
Project Work 2: Making our dreams into reality: working on dream projects of choice (1.5 months)
Gathering 7: Co-learning with peers and through workshop on Entrepreneurship @ Udaipur (10 days)
Community Learning Journey 2 (optional): Organized by the khojis in their own communities (5 days)
Project Work 3: Making our dreams into reality: working on dream projects of choice (1.5 months)
Gathering 8: Co-learning with peers and through workshop on Swaraj Entrepreneurship @ khoji community (10 days)
Community Oasis Game 1 (optional): Open to both batches (6 days)
Project Work 4: Making our dreams into reality: working on dream projects of choice (1.5 months)
Gathering 9: Co-learning with peers and through workshop on Swaraj Entrepreneurship @ khoji community (10 days)
Community Learning Journey 3 (optional): Organized by the khojis in their own communities (5 days)
Project Work 5: Making our dreams into reality: working on dream projects of choice (1.5 months)
Gathering 10: Khoji Milan and Graduation (2 weeks): Gathering of all the batches of Swaraj University @ Udaipur. Review of 2 year journey and sharing of future plans including business development plans and project proposals.

Ideas, experiments and way forward:

Many people, of all ages, show interest in being part of Swaraj University but due to family and financial responsibility and unavailability of time, they are not able to join. For people who cannot afford to give 2 years into it, we have short period workshops, which are open for khojis as well as outsiders, which also helps people interact with the khojis and get the feel of the programme and space.

At Swaraj we also are constantly striving (failing, falling, getting up, trying again) to imagine and create a space for being the gift – which means slowly cultivating inside us and around us a wholesome state of giving and receiving. As a part of this, we are experimenting with gift culture practices in our relationships with khojis, mentors, resource persons and team-members like moving from transaction to trust, contracting to connecting, scarcity to abundance, private ownership to commons, extracting from relationships to nourishing each other. These are big words and yet they hold meaning for us in small acts.

We believe spaces like Swaraj University can sprout up anywhere and everywhere. The idea for us is not to scale up and expand to various cities, but support individuals, groups and communities to begin one in their own locality, with their own philosophies, design and ideas. That is how learning can evolve and be diverse; otherwise, expansion with the same idea will homogenize the learning and will turn it destructive similar to mainstream education.

For the readers of Lifewide Education who are open to new ways of thinking, have dreams of building healthy and resilient communities and who want to keep learning alive, we urge you to experiment. Begin with your own lives, start your own learning spaces, challenge continuously what you have been taught all the while. Make your own learning live.

You are welcome to visit Swaraj University to experience the joy and aliveness of learning.

Swaraj University is a small but potentially powerful step in the direction of 'Swaraj' the way Gandhi imagined it. Our aim is to restore the responsibility of education to the learner and the community and revive local cultures, local economies and local ecologies.

We invite you to join us on our journey. Swaraj University is not accepting any grants from big donor agencies. We operate on the idea of Gift Culture, accepting gifts of various kinds from friends, supporters and well-wishers. You can also contribute in our journey by gifting books or films for the library, or old laptops for the media resource centre, games and sport activities for the khojis, or gift us your time and share your skills and/or wisdom. Financial contributions to support scholarships for khojis are also welcome.

Sources

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13 Experiments with Simple & Sustainable Living: Stories from Swaraj University

Rahul Hasija

Rahul Hasija is a writer and storyteller and currently works as a Lead facilitator Swaraj University (www.swarajuniversity.org). Part of his work is to design and implement the structure of the program, develop facilitation tools, create safe spaces for the learners to share, hold the space, host sessions on team-building, cooperative games, circular dances, reconnecting with the ancestral roots, rethinking development and connecting with nature. Community building, gardening, bird watching, making herbal products, theatre and dance are his key areas of interest and engagement. He has been learning to farm in his efforts to live a simple and less consumption-oriented life. Inspired by the sustainable and indigenous practices and lifestyles of our ancestors, he envisions spaces where stories of people, places and nature travel into our hearts, thereby nurturing and sustaining a more harmonious earth.

When I see small ants, hundreds of them, crawling in my mud house every day, when I hear the Nilgaay (Blue bull) jumping in my backyard garden in the middle of the night searching for food, when I see stars, planets and meteors and the faint milky way in the night sky, when I see the grass growing wild in the rains and vanish in the summers, when I hear people sharing their deepest stories, music and dance, when I see birds and bees do what they are best at, and when I see people playing with mud & manure or in the fields harvesting foods & fruits, I realize I and the world around me is alive – we are thriving and the world is breathing with me. For the last 7 years, I have been experiencing this aliveness with my community at Swaraj University, in Udaipur NW India.

Unique ecological educational enterprise

Swaraj University is a unique educational enterprise and a place and space for learning without classrooms, teachers, pre-defined syllabus and degrees1,2. A two year programme launched in 2010 has provided a safe and supportive space for many learners to pursue their hearts' calling, and healthily question their lifestyles, their notions of the world, self and society. It has provided a space to be comfortable with themselves – a space where they can feel accepted. This space also came into being with the aim to challenge the institutionalization of education, health, food, entertainment and lifestyle and to give youth an opportunity to reclaim all of them in their lives.

The 'campus' is located at Tapovan Ashram, a beautiful, tranquil, green, 15 acre farm located in an isolated, scenic valley between two mountain ranges, 15 kms from Udaipur city in the western Indian state of Rajasthan. Founded 25 years ago by a retired couple who bought what was then barren land, they reforested it and turned it into an ecological heaven. It has an organic farm, herb gardens and an ayurvedic healing centre and is now home for many species of birds, insects, reptiles and predators. Living on the campus away from the noise and pollution of urban life, offers a serene and beautiful environment for reflection, self-exploration and personal development.

Hills around the campus of Swaraj University

In this close to nature environment, learners, which we call khojis - a Hindi word for 'Seekers', have explored and worked in more than 75 different fields like eco-architecture, farming, theatre, design, healing, technology, facilitation/teaching, writing, film making, storytelling, alternative education, 'kabaad se jugaad', event-management, healthy cooking, and even living simply in an intentional community.

Khojis at the lake-side behind campus

Having been part of this space from the beginning, as a khoji, then interning for a year and then as a facilitator, and having experienced living on the campus for the last 7 years, I will share some of the experiments we have undertaken and show how they are helping us transit to a more ecological community.

Ecologically sustainable living and learning

'Ecological Sustainability' has been an important pillar of the educational programme at Swaraj as we believe learning cannot happen in isolation and in separation from nature. The more we sense the interconnectedness, the more in-tuned we are with our self. In all these years, there have been various experiments and practices tried, some intentionally, some just came to be, at head, heart and hands level to understand the impact of our current lifestyles, assess it and slowly shift to ecologically sustainable ways. This means living in harmony and inter-dependence with other beings – living and non-living, that doesn't risk their present or potential future lives). Some of these practices are described below.

1. Hands-on work at the campus

All the learners and faculty on the campus are actively involved in cooking, cleaning and maintaining the community spaces. Our continuous involvement with our hands has helped us reduce the weightage today's youth gives to head work and it has helped us understand the potential our bodies hold. A lot of youth I meet and interact with have a distorted vision of their physical bodies because of the persistent pressure from media and society to have the perfect body, face, colour, shape, size (I was one of them few years back). This bombardment has made us lose respect for our bodies and has made us uncomfortable within it. Doing regular hands-on work releases some of that pressure as it has made us feel and connect to our body. Hands-on involvement is not limited to cooking, cleaning and farmwork, experiences like theatre, dance movement therapy, cooperative games, and meditations of different kinds collectively helps in healing our notions of our bodies and self. I remember, by the end of my 2 years at Swaraj University, I realized I had become so comfortable with my body that it didn't matter what kind of clothes I wear and how I look. As I observed around me, I have seen people consuming more and more, and shopping for the outer beauty because there is an uncomfortable relation with inner being. The moment I became comfortable with my body, I realized I needn't buy new clothes or accessories, in a way reducing my consumption.

Regular participation in cooking

Participation in farm work

Practicing a healing process 'Emotional Freedom Technique' (EFT)

Learning 'Mime' techniques

Khojis building bamboo huts on the campus

Preparing raw material for the cob-wall of a house

It was also intentional from the beginning to have no maids, servants or workers on the campus as it gives us the opportunity to move away from the parasitic relationships we have on people and often communities of certain backgrounds, for the work we are capable and responsible for.

2. Re-thinking the idea of development

What are the places we consider 'developed' in India? Delhi, Mumbai, Bangalore, would be common answers. Paradoxically, these so-called 'developed' places have no pure air, pure water and pure food. Then what is so 'developed' about them? If a man sits under the shade of a tree to relax and experiences contentment, it adds nothing to the GDP, but when the same man cuts the tree and sells it into the market, it adds to the national growth. So, are peace and contentment contradictory to a nation's growth? The re-thinking development workshop, that has been transformative for many, takes us through a journey of questioning our lifestyles, our consumption patterns, our standards to measure success, happiness and of course ourselves and aims to understand the whole idea of development through different lenses.

Mime - Tale of a Fish - against the Koodunkulam Nuclear plant by a mime artist friend Sushanto

Visiting Dumping yard and meeting the affected communities

Co-facilitated by me and two other facilitators, Reva & Sameer Dandage, this workshop utilizes stories, film screenings, the sharing of personal experiences, participative discussions and visits to mine & dumping yards, brings out hard-hitting stories of people, places and communities that are struggling to exist from the devastating impacts of 'development'. One of the most impactful story for me has been the story of Congo and Coltan – of kids of Congo being sent to dangerous mines at gun-point and thousands of women being raped just for a metal used in our cell phones and other gadgets. I was moved to make a decision that I won't buy a phone in my lifetime as it is causing nothing but sorrow to fellow beings. And indeed, it was not just my decision, people who have attended it have brought about many amendments in their lifestyle. The workshop helps us to understand the mainstream model of development – extraction, production, distribution, consumption, and disposal – to aspects we are many a times unaware of. It becomes very clear by the end of it that we have turned to the tendency of using finite sources infinitely (minerals, fuel, trees, etc.) and infinite sources (such as time) finitely. Another independent workshop aligned to Re-thinking development is Jeevan Vidya, which brings to us sets of proposals towards our lives, relations, world and spirituality, all of which bringing a new and different outlook towards life.

3. Interconnectedness and being one with nature

The pre-extension of re-thinking development is re-connecting with nature. It was clear to us that facts and information won't alone make an impact on us as we are already numb with bombardment of information we receive from media, society and education system. Rekindling our once lost connection with nature is as much important. How can I fight for the lakes, mountains and forests if I haven't been to one or haven't experienced the stillness that comes within their presence? In the contemporary world there are two prominent relations we have with nature – first, we see it as something to be fearful of, and secondly we see it as a resource to be used.

At Swaraj University, we try to dismantle both these attitudes as and when the learners arrive on the campus. Some of the exercises we do are spending a couple of hours observing a living organism (other than humans and other large mammals such as dogs, cows), spending time on the mountains with no agenda – just being there like any other piece of rock, walking across the stream or river barefoot and experiencing the water and the wisdom it carries. One of our resource persons Suresh took us through a startling journey of observing nature and its creatures (sun, sky, birds, flowers, bees, insects, sounds, and self) from morning 4am to night 11pm and it was amazing to see how day and night unfolds and how every moment there are parallel lives living and sustaining the world.

On a water-walk, immersing to be one with nature and experiencing the oneness with water

Khojis doing a learning exchange at the lake side, thereby spending much time in touch with nature's elements.

We also do some rituals to understand the elements of nature, shake our beliefs and experience the mountains, lakes, trees, and rivers as our relatives rather than resources. One of the most shocking and humbling experience I have come across which changed my relation with nature was when I realized and understood that the villagers never go trekking on the mountains and hills. They only sometimes walk on these hills to graze their livestock, and that too, they seek permission from the mountains to do so. We have also had a Shaman (traditional healer) come and share shamanic practices they practice in their tribe that re-align and heal our relationship with nature.

4. Slowing down

We have tried to inculcate the element of 'slowness' into our program as Slowness in today's World is therapeutic. Reconnecting with nature adds to our experience of slowness. Another beautiful gift we have received staying at Tapovan Ashram is the 'slow internet connection& phone receptivity' on campus that has been a great healer for a lot of us as it gives us more time to connect to ourselves, our close ones, mother nature and to what is present. In a well-known documentary 'Ancient Futures', a local Ladakhi lady talks of her relative who bought appliances like refrigerator, washing machine, mixer, to save time. Sometime later, when this lady wishes to visit her relative, the relative says she has no time. Indeed there is a need we felt to actually slow down our pace rather than holding time (which is indeed not in our hands). Thus, we have chosen not to install or use wi-fi routers, LAN systems, T.V., or any other modes of modern-day entertainment. It is part of the program to start reclaiming our modes of entertainment. Learners do it with their own style designing and holding different kind of get-togethers, musical evenings, drum circles, star-gazing nights and much more.

5. Experiments with gift culture

When I had just joined Swaraj, in groups of two, we were sent towards a village without any money or gadgets and were given the challenge of building relationships with the villagers and have dinner with them before coming back. It was my first time to a village. Within three hours of my time in the village, I realized a stark difference from a city. With their limited means but unlimited heart space, we were served food and lots of love and it was so easy to get into people's house. And that is when I realized the potential of gifts they carry – the gift of abundance. At Swaraj we are constantly striving (failing, falling, getting up, trying again) to imagine and create a space for being the gift – which means slowly cultivating inside us and around us a wholesome state of giving and receiving. As a part of this we are experimenting with gift culture practices like moving from transaction to trust, contracting to connecting, scarcity to abundance, private ownership to commons, extracting from relationships to nourishing each other. These are big words and yet they hold meaning for us in small acts. Mentors, resource persons and well-wishers of Swaraj Uni. have abundantly showered on us gifts of their time, energy and resources and there have never really been any 'transaction' with them. Khojis too, have been spreading these gifts wherever they go thereby keeping the gifts in a flow.

Our idea of 'money' and its utility also changes as one this journey we also see world from a different lens. Major focus of our education system is to prepare us for livelihood and the whole economics is based on scarcity. We, at Swaraj, are trying to strive for a world where youth also focuses on living life. Livelihood is just a part of it. Even for most people working in Swaraj University, money is not the prime driver for being there.

One of the beautiful experiments we do at Swaraj is of 'Dariya-dil dukaan' – Shop of the open hearted, a space we create for some time where people can share their gifts (it could be clothes, gadgets, recipes, skills, time, invitation to home, etc.) and people who need it can receive it. I have been hosting Dariya-dil dukaan from last few years and every time I do it, I feel

enriched by the sharing experience which takes place. It multiplies the power of sharing and challenges our attachment to stuff, thus making a small dent in our consumerism. I have seen many-many people shifting from regular buyers of stuff to hand-me down users of stuff. I recently got a kitchen added to the place I stay and I got all the necessary cooking and eating utensils as hand-me-downs.

These practices of gift-culture (economics of abundance) bring to us a possibility of a world where we see, give and receive everything as gifts – river, water, air, food, skills, everything. When we see everything as gifts, there is a deepening of feelings of gratitude that really can help us come out of consumer culture.

"When anybody is in gratitude, every perception is different and every response to a situation is different. It colours your whole world. And the things that we try so hard to achieve become either irrelevant or effortless." Charles Eisenstein

6. Cycle yatra

Every year, with a new group, we go on a sacred cycle yatra –a journey to connect with each other, to the Earth, to communities we meet, to the forests, land, water, air, and self, and all that without the safety nets of money, clothes, food, medicines and gadgets. It is not a rally or a race, and there is no message or measurement. For 7 days, we move along the village side, without pre-deciding the route or the village, randomly choose a village, go and join the villagers in whatever work they are up to (farming, cow-shed cleaning, grazing, construction, etc.) And let me tell you, I have been on such yatras for four times, but never has the day passed when we have slept hungry.

It has been a transformative journey every time we set on it as it pushes us beyond our comfort zones, puts us in extreme vulnerability as we are without any safety nets, helps us move beyond the parasitic relationship we have in city and helps us surrender to the Earth and its people.

7. Jaso Ann, Vaso Mann (You are what you eat)

At Swaraj University, a lot of thought goes into preparation of food, selecting what is cooked and how it is cooked as we believe it is the aliveness of food which makes us alive. We try to include lots of millets in our preparations, get as much as organic grains as possible and use minimum of processed oil in our foods here. Michael Pollan, a well-known researcher of food once said "At home I serve the kind of food I know the story behind". Knowing the story behind our food is also encouraged as we invite resource persons who with the use of films, visit to various food industries, discussions and actual preparation of food bring to us what we eat. One of our resource person, Purvi Vyas, who is also an organic farmer in Gujarat takes this fascinating subject of the 'Geography of food' and brings us face to face with the dangers of pesticide farming, chemical used in food, GM food, farmer suicides, factory farming and much more.

Khojis are also encouraged to participate in the kitchen, know more about food, interact with the kitchen staff, try different recipes, and bring traditional recipes from their parents and grandparents. One of our key nourisher has been Sumi Chandresh, an artist, unschooler parent and a great cook, who for last many years has experimented on food and brought variety of food recipes and ingredients to the Swaraj University kitchen.

Reva Dandage, the co-founder of Swaraj University, and I have been trying to grow our own food from last couple of years in the campus area itself. Both of us stay on the campus for most of the year and farm for at least two seasons. We often share our produce with each other and other members of the community and it is indeed a pleasure and learning experience for both of us to observe and see our tiny little seeds grow into a mature plant.

8. Participating in ecological movements

Khojis and team members of Swaraj have been witness to many social resilient movements across the nation. A huge population across India is resisting oppressive forces for their land, water and forest rights and these are the people who have lived, for generations, in forests, close to land and rivers. In a recently held gathering at Swaraj, Rajagopal ji, the man behind many land rights movement said "Aadivasis and their ecological wisdom makes them one of our gurus"

Right - Khojis participating in the Jan Satyagrah yatra by Ekta Parishad – Jal Jangal Jameen andolan

Participation in these movements is not just to support them, but also to support ourselves as commons are at stake and we are all going to be impacted. Some of the movements our khojis and team members have been party to or have witnessed are people's movement against Nirma Cement factory in Mahuva, Gujarat, and the people's movement against POSCO in Odisha, Swaraj Beej (seed) Yatra that happened across many states. We have also been involved in Economics of Happiness in Bangalore –a larger movement towards localization.

Khojis participating in people's movement against the Nirma Cement factory in Mahuva, Gujarat.

One of our khojis, Gyan, came to Swaraj with a focused goal of becoming a mainstream masala film director. When he travelled with the Ekta Parishad yatra video-documenting the social movement, he was literally moved, meeting local people and listening to their stories, so much that he chose to document their lives and stories instead of making a mainstream masala film.

9. Visiting & collaborating with other ecological communities

As part of our learning journeys and mentorships, we also visit many ecological communities, where people and organizations are trying to shift to ecological ways of living. We visit organic and natural farmers, suppliers of organic food, kabaad se jugaad artists, eco-architects and their work-site, etc. These visits and sometimes mentorships are to learn and meet people who are an inspiration, who are trying to be self-sustained and minimising consumption and destruction. Swaraj University has also co-initiated Eco-versities Network with 50 eco universities around the world.

Left - Visiting Varsha Samuel and her balcony garden in Dharwad. Right khojis visiting an organic farm in Pune

10. Understanding Swaraj and Commons

Every year, we play an interesting game of musical chairs that is way different than what we have played in school functions or birthday parties. What do we remember of that game? Running around the chairs, trying to push the one who is ahead and being cautious of being pushed by the one following us, having our ears attentively placed on the music waiting for it to stop and start again, our eyes, like a hawk's, set on the chair.

Aren't we playing the same game at a broader social, political and ecological level? Pushing communities and other living beings out of their space and sometimes to extinction, hoarding immense money and power to push others, living with immense insecurity of losing out and maintaining the status quo. The different game we play has just one pre-condition – no one shall lose. And indeed, it is a game changer, as what we see are people dancing around, sitting on each other's laps as the chairs go down, going around in every direction. Manish Jain, another co-founder of Swaraj, takes us through this process of understanding how these chairs symbolize our commons – air, water, food, and land, and how do we shift to a new story – a story of people living in harmony, reclaiming their lives, inter-dependence, self-reliance and creating healthy and resilient communities, and that is what the idea of Swaraj is, which Gandhi, Vinobha Bhave and many others talked about.

11. New Eco-construction on the campus

Left - Zomsa Geodome café & Chulha (Zomsa in ladakhi means getting together place for a family)

There has been some eco-construction which has happened on the campus – that is more local style with local materials, where more natural lights flows in.Some of the khojis, who have been interested in pursuing eco-architecture have been part of designing, budgeting and actual construction along with the locals.

Left - Bamboo structure bathrooms & grey-water harvesting plant

Right - New eco-toilet on the campus

Left - OJAS – Mud-plastered & round structured hall

12. Making & using herbal products

We encourage our khojis and other visitors on the campus to make and start using non-chemical self-care products. Some of the products we have made on the campus together are tooth powder, soap, mosquito repellent, lip balm, joints-pain oil, tea, utensils cleaner, etc. The recipes of these products are copy-left (instead of copyright) and anyone can make it.

Applying cow-dung based organic face-pack

13. Alive-lihoods

Every year, there are khojis who plan their projects, a stepping stone for deep diving into their own work. These projects are varied – some want to build their own enterprise, some want to work independently on their creative projects, some want to assist already existing organizations with their own inputs. We call it Alive-lihoods projects – where a lot of questioning and helping goes into how these projects are serving people and bringing individuals and communities alive, how is it serving the local ecology and economy and nitty-gritty of economics and our notions of money are challenged to go beyond the main-stream model of economics.

Right - Kamalbir and Ritesh, khojis of Swaraj Uni., selling their eco-products

One of the khojis Kamalbir, who began a start-up project of up-cycling textile waste into utility bags and then selling it into the market, soon struggled with the idea of scaling up or not – scaling up means more products in the market, which again means more consumption, and more production means the support staff of the team (the production unit, who are Women-folk of a village in Udaipur) that now have enough time at home to work for self, home, farm, poultry, would then have to focus full-time on the production. The rest would suffer. Thus, she decided to continue the work in a way where production of bags remains just one of the work and the team-members can continue to keep other valuable service activities of life in loop. Thus, understanding the 'abundant economics' (gift Culture) has been as important as understanding marketing and money-making, not just for khojis, but for the team as well.

These are some of the experiments we have been doing, and all of them involve hands, heart and head and enable us to experience our oneness with nature and move us towards a more sustainable life. To be very frank, we are just beginning to understand the vastness of what still needs to be done and undone and we are faltering and making mistakes. A lot needs to be worked to be in-tune with the ecological wisdom that is nature itself. These choices, actions and sometimes inactions are boosting our intent and confidence in shifting towards a more sustainable life and a more sustainable ecological education to support a sustainable life.

Acknowledgement

This article on which this is based was originally published on 28th April 2016 at https://ecofolk.in/2016/04/28/experiments-with-simple-sustainable-living-a-story-from-swaraj-university/

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The Dynamic of Health
Learning for a sustainable world from a role-play process into youth wellbeing

Philip Franses with drawings by Jordan Reynolds

Philip has taught participative education in the Holistic Science MSc at Schumacher College since 2009. The greater challenge he is working with now in Global Synapses (http://www.globalsynpases.org), is how to apply this learning to practical situations in the world. He is author of Time, Light and the Dice of Creation (2015).

Jordon is local young creatives co-ordinator and drawing projects. He is a young artist who loves to draw "whenever, wherever and whatever" he can. His aim in life is to use his art as a vehicle "to bring attention to, and raise up those less fortunate in life. In a nutshell, I want to create art for the aiding of others."

Context

The dynamic of our systems of health and education are in an unhealthy feedback that cannot be solved from the perspective of the institutions themselves. *Global Synapses* addresses this challenge by appealing to the source of wholeness in ourselves as the pivotal place of potential through which we regain living perspective. The workshop into health, discussed in this article, illustrates a subtle shift to know the logic of existence from within the experiencing of existence. For instance a bird-watcher knows the identity of a woodpecker through the characteristic of its loopy flight, its tree-tapping sound and its ground-shy behaviour. The woodpecker lives a logic of characteristic being out in the world. The challenge is to tease from complex situations, in this case a role play around wellbeing, the essence that as it were distinguishes identity in mid-flight.

The *Apricot Centre Wellbeing Service* uses a holistic and process-oriented approach to working with and supporting young people and families where there are physical, social, psychological, and environmental challenges to wellbeing. This forum on the well-being of young people in Devon (organised *with Global Synapses*) employed process-oriented facilitation methods to enter and begin to unfold the dynamics underlying the roles being expressed during the group's talks and discussions on the theme of the day. Process-oriented facilitation involves entering the river of roles and experiences rather than commenting on the river from it's banks

Human Potential

Normally the subjects of power dynamics, health-care and regulation-monitoring would be seen as separate disciplines to be studied in isolation from each other. The idea of the role-play was to examine the explosive nature that develops as these three aspects come together. What was normally made safe in different compartments of understanding was now seen in a dynamic setting, where the real secret of health could be found.

Mark O'Connell who works with young children at the *Apricot Centre Wellbeing Service* in Devon, began by talking about the role, as a professional having power over the people who look to him for help. He invited others to take up roles in this space. At this point an adult participant K. came into the space playing the role of a distraught child who was asking to leave her father and live with her mother. As the professional maintained working from his position of power, the young girl withdrew feeling unseen in her predicament. Other facilitators helped point out this tension that was developing.

The dynamic however soon became distressingly more real than the play. As the patient K. became visibly more upset, the role-play was joined by:

- a superior demanding clear outcomes;
- a regulator asking the care-professional if he had filled out a risk-assessment, and
- a manager instructing the care-giver to think of the reputation of the institution first in case the patient should turn suicidal.

It's the mystery about this unchecked desire to draw and capture the world that I allow -Jordan

At the same time as the professional knot was tightening in the exercise of authority, another focus developed of those without power. The patient K walked over from the centre of the space where this distressing scene was playing out, to join two dynamic young people, Mia and Daisy. They had shared earlier in the day the 'Young Creatives for the Community' intergenerational project they had set up, supported by the Arts Lab in Dartington, to help people find their passion and direction. The service had proved invaluable in helping young colleagues find fulfilling, creative paths out of the disempowerment of school-experience.

Once over to the side of the room, K found solace being understood at an emotional and human level. For the situation to resolve the two poles had to come together, Mia and Daisy showed courage and maturity in confronting the professionals with the reality of the situation.

Transforming identity

There was now an anguish in the room, as some recognised this pattern from their own experience. The power dynamics of the professionals were dividing the distressed individual from her own future, dignity and integrity. As the girl became more upset, the system was taken further out of its operating realm of foreseeable consequences. **The very ground assumption on which the health system was based was in contradiction with the actual needs of individuation and self-actualisation of the young person.**

The transformation act explored by *Global Synapses* within a dynamic of division is to find an opportunity for regeneration of a new identity honouring the potential of all in a new way.

This was the point at which the role of a social worker was introduced. While everyone was seeing health as a problem, he came seeing health as a potential. He said he had found some funding to help the young carers be recognised in their efforts. Something profound shifted, as Mia and Daisy became the new focus around which the health efforts could spontaneously form. An optimism entered the room, that life after all held its own answers. A new educational standard had lifted everyone into empowerment of life. The power was now shared between the professionals and the young individuals and directed towards realising a *healthy dynamic.*

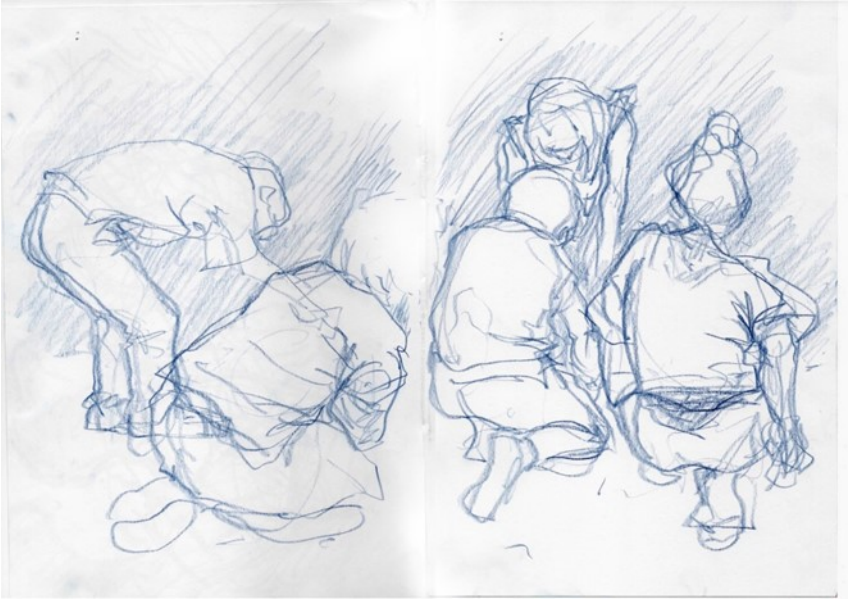
The characteristic of our systems, of health and education involves the isolation of knowledge. A closed identity of expertise distressingly removes knowledge from acting effectively and generatively in a dynamic of change. The expert is frozen in a pre-decided role that does not allow movement to respond.

Learning

Education has become itself disempowering by separating knowledge from the experience of discovering the logic of identity. School teaches one to foster an identity that is independent of the naturalness of one's behaviour. One learns to conform by taking on a name as label to differentiate one's place in a class of otherwise identical children.

The role of the teacher has become similarly isolated, defined on paper as realising generalised learning outcomes, without any room for actual response with the students. The dynamic as illustrated in the role-play above is disastrous, standing in the way of the children's need for individual attention, response and understanding.

This reuniting of knowledge with life allows a re-owning of the naturalness of actions that identify one in the world. The core to this healing is always light, as illustrated in this last of Jordan's pictures.



In some precious moments as in the calm after the storm of the role-play light illuminates the unity of logic and experience, where everyone knows their place in a collective sense of who we are. This place of illumination cannot be taught or fabricated but only experienced. Once one arrives there the insoluble riddle of how to bring together everyone's specialism and expertise completely vanishes, and in its place people are together in a shared sense of wellbeing.

Reflection

As a teacher or a researcher in today's education system, one is defined in ever narrower terms as to the identity one has to uphold, the outcomes one is supposed to meet, the measurable milestones to achieve. Knowledge has become part of a dynamic that is working adversely to the potential of humanity. Real research that could help the planet and humanity is being ignored.

However successful we have been in managing the world from a standpoint of objectivity, the current world dynamic on principle cannot maintain this perspective. Our very mode of thinking and engaging with the world has set up a tension with the everyday actuality of life that is unravelling the fabric of our institutional processes.

It comes down to our life wisdom and value-base to recognise and choose for a new identity to focus our potential. The dynamic of health is a choice that touches us all.

Acknowledgements

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Contact

Global Synapses collects together experiences of people discovering togetherness. Do contact Philip at philip@globalsynapses.org to share how this is happening with you.

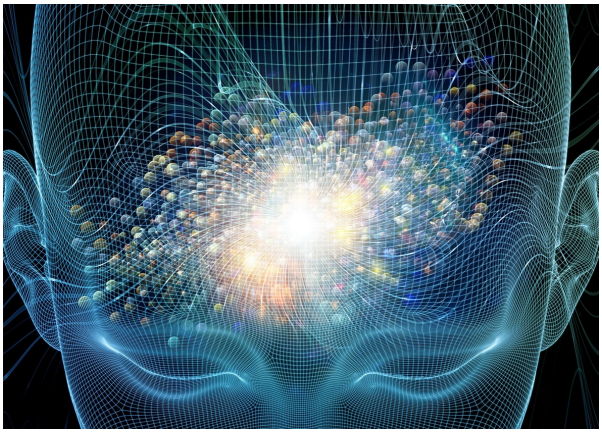

Image credit:
https://www.schumachercollege.org.uk/blog/how-holistic-science-helps-us-to-solve-real-world-problems-by-philip-franses

Personal Wellbeing: Assuming personal and social responsibility for a sustainable environment

Jenny Willis

In this article, I shall argue that the challenges we face as individuals and societies in a globalised 21st century, call for us all, from the personal to collective level, to assume responsibility for wellbeing if we are to optimise the chances of sustaining our environment. I begin with some conceptualisations of wellbeing, then consider a number of the challenges that we must confront. I argue that it is essential for us to understand our personal values if we are to take informed decisions on our own wellbeing and that of our fellow citizens.

Conceptualising wellbeing

The term 'wellbeing' has become ubiquitous (a current Google search produces 200,000,000 results in 0.56 seconds)[1] and is often seen as the panacea for leading a productive life in the 21st century. This begs the question, what is wellbeing? Can there really be one single definition given the personal values that attach to it? Is it a fixed or fluid concept?

A decade ago, Ereaut and Whiting (2008)[2] compared various models of wellbeing and concluded that, whilst it is a cultural concept that varies according to the values of time and place, and across disciplines, there is commonality in our desire for 'a good life', of which health may be one component (Figure 1). Balance and avoidance of excess are implicit.

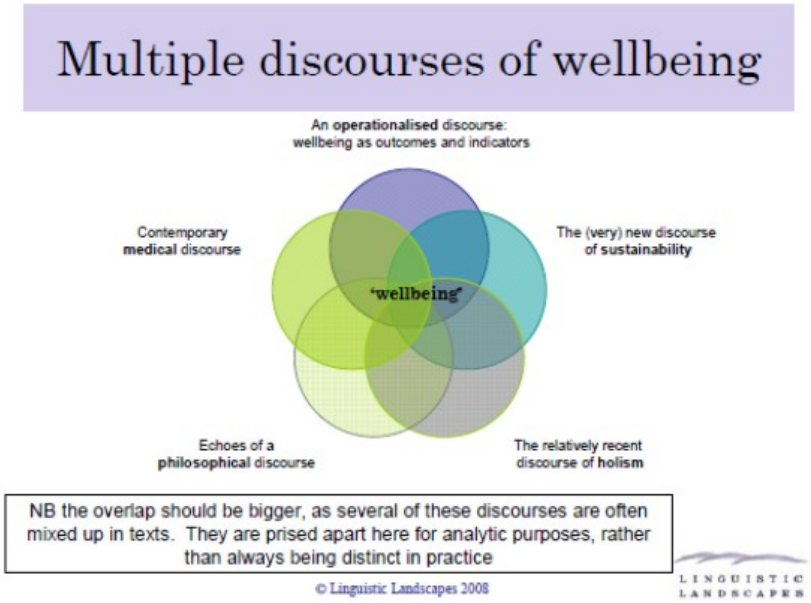

Figure 1: From Ereaut and Whiting 2008:10

Such notions of leading a 'good' life can be traced back through millennia e.g. Alcmaeon of Croton (500-450 BC) recognised the association between imbalances in environmental, lifestyle and dietary factors, whilst Aristotle (384-322 BC) identified Eudaimonia (the sense of leading a 'good life). In the last century, philosophers and psychologists have examined factors likely to contribute to personal wellbeing e.g. Maslow's (1943)[3] theories of achievement and human needs, Rogers' (1951)[4] focus on self-fulfilment and Frankl's (1988)[5] work on logotherapy, finding a personal meaning to life. Against this background, we should not, then, be surprised that the World Health Organisation included a reference to wellbeing in its 1946 definition of health:

> Health is a state of complete **physical**, **mental** and **social** well-being, and not merely the absence of disease or infirmity (World Health Organisation 1946)[6]

But the notion of wellbeing goes beyond physical and mental health and is inevitably political since it demands policy decisions and prioritisation when allocating national and local resources. Hence responsibility lies with both individuals and the community.

The last decade has seen a succession of models of wellbeing designed to aid policy-makers. In 2013, the Organisation for Economic Co-operation and Development (OECD)[7] produced a definition of personal wellbeing which comprises 3 dimensions:

- *Life satisfaction* - cognitive life evaluation by the individual of aspects, or the whole, of their life;
- Measurement *of affect*, how the individual feels at a particular point in time; and
- A *'eudaimonic'* aspect, the individual's sense of purpose and engagement.

These dimensions reflect the notion of a 'good life' and were initially conceptualised in a 2-dimensional framework (figure 2) which had at its heart the individual.

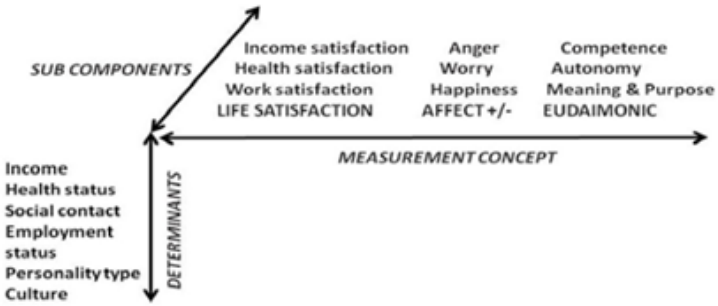

Figure 2: OECD model for measuring personal wellbeing 2013

By 2017, this model had been refined as shown in Figure 3, to connect personal wellbeing more closely to the social and political environment, moving subtly from the individual to the collective and explicitly acknowledging issues of sustainability.

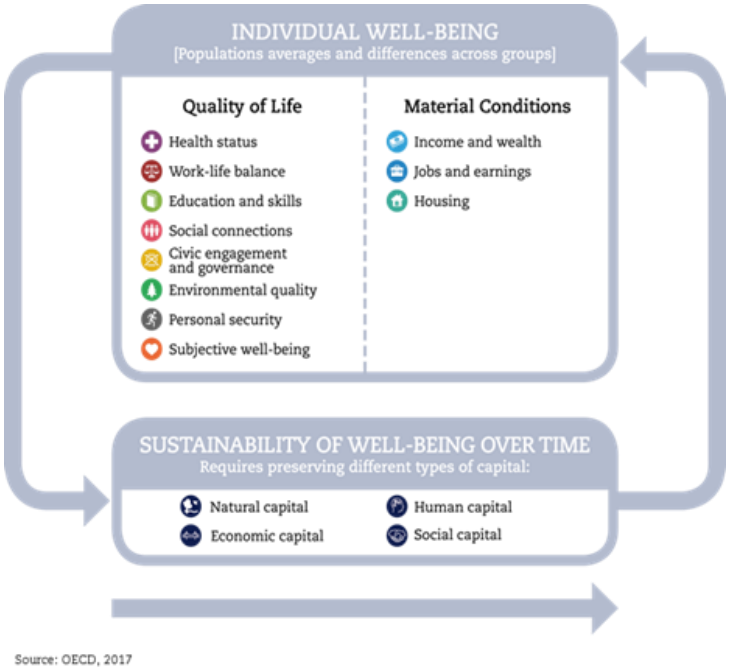

Figure 3: OECD model of wellbeing, 2017

At the personal level, quality of life is gauged in eight domains but this sense of wellbeing is interdependent with the socio-political environment; that includes economic capital, which in turn depends on natural and human resources. The OECD offers an on-line index[8] which enables individuals to assess their personal wellbeing against these dimensions. Responses are also collated by nation to produce a comparative ranking with other nations, and to give policy makers data on their constituents' perceived needs, implicitly addressing the personal and social levels of responsibility.

Figure 4: OECD Better Life Index

Global issues affecting wellbeing

The increased political and individual importance of wellbeing derives from complex changes in societies across the globe.

Increased longevity

Globally, life expectancy is increasing e.g. currently in the UK it is 79.4 years for men and 83.1 years for women (Office for National Statistics, 2017). Figures 5 and 6 shows that, by the year 2050, most countries will have experienced significant ageing, as indicated by the red shading on the world map. Longer life is, if course, welcome provided that the individual is able to enjoy their older years, and their community can support the recalibration of generations as populations age and wage-earners may be outnumbered by pensioners.

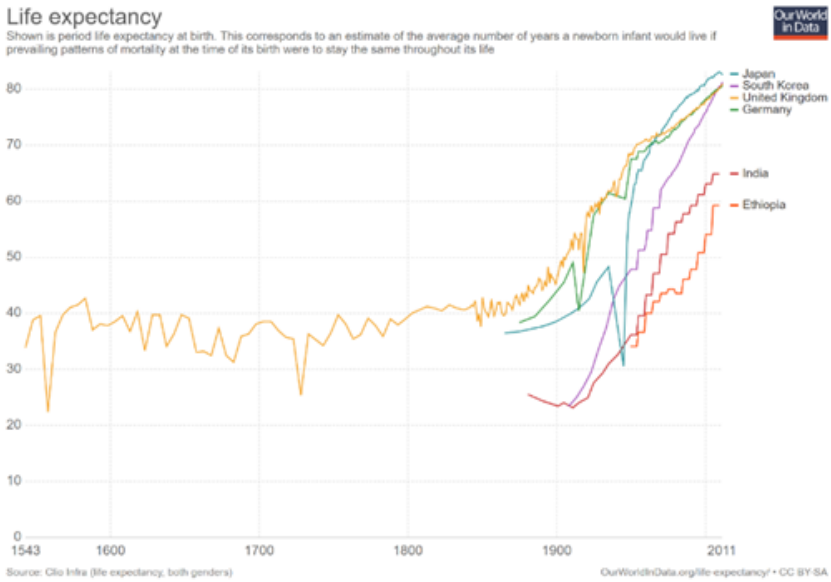

Figure 5 (above): Changing life expectancy[9]

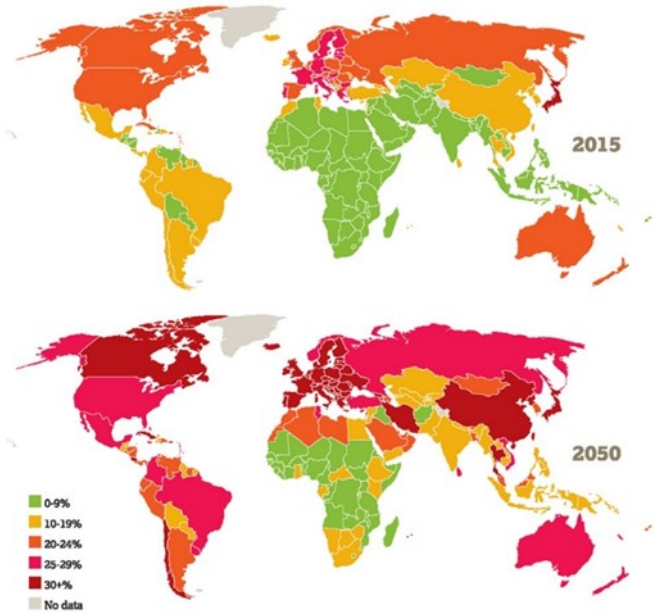

Figure 6 (left): Proportion of population aged 60+[10]

Population growth

Not only is the global population ageing, it is increasing in size, even when death rates for natural disasters and man-made conflict are factored in (WHO, 2017)[11]: from today's 7.6 billion to an estimated 10 billion in 2056 (United Nations, 2017)[12]. The question arises, how to maintain personal wellbeing with such pressures on finite social resources, and where should priorities for expenditure lie?

The WHO has proposed six lines of action to be taken for sustainable development (WHO, 2017)[13]. These address the health system, international and intersectional financial responsibilities and factors such as equity and human rights. Such guidance is helpful at the policy level but does not directly address personal wellbeing. Matters are compounded by the complexity of wellbeing: it is not simply a matter of health, or of happiness. Wellbeing is a uniquely individual condition, inseparable from one's sense of identity and personal values at any point in time. Identity therefore becomes a crucial issue as demographic change poses both a threat and an opportunity to who individuals perceive themselves to be.

	Six main lines of action	Opportunities provided by the 2030 Agenda
Building better systems for health	Intersectoral action by multiple stakeholders (see section 1.6)	Placing health in all sectors of policy-making; combining the strengths of multiple stakeholders
	Health systems strengthening for UHC (see section 1.2)	Disease-control programmes embedded in a comprehensive health system that provides complete coverage through fully staffed and well-managed health services, with financial risk protection
Enabling factors	Respect for equity and human rights (see section 1.3)	Improving health for whole populations by including all individuals ("leave no one behind") and empowering women
	Sustainable financing (see section 1.4)	Attracting new sources of funding; emphasizing domestic financing, with alignment of financial flows to avoid duplication of health system functions
	Scientific research and innovation (see section 1.5)	Reinforcing research and innovation as foundations for sustainable development, including a balance of research on medical, social and environmental determinants and solutions
	Monitoring and evaluation (see section 1.1)	Exploiting new technologies to manage large volumes of data, disaggregated to ascertain the needs of all individuals; tracking progress towards SDG 3 and all other health-related targets

Figure 7: WHO Action for sustainable development

Migration, identity and personal values

Where once societies could retain their individuality, immune to the influence of outsiders, the globalisation of industries and accessibility through technology of other cultures and belief systems renders this isolationism unrealistic now in all but the most extreme of communities. Contact with new ideas is both active and passive: migration, whether by choice or by force of circumstances, is bringing the customs, languages and values of other peoples to new host communities. Migration is at an astounding level: in 2015, 4.7 million people immigrated to one of the 28 countries that form the European Union while some 2.8 million emigrated (Europa, 2017)[14]. Approximately half of these immigrants were from countries outside the EU and 19,000 were estimated to be stateless. Globally, South-East Asia and South America saw the greatest levels of emigration in 2015 (UN, 2015)[15]. Migration may be for economic reasons or through displacement due to natural disasters or conflict. Unlike controlled immigration systems, refugees and displaced people may not bring the skills needed in their host communities (OECD, 2016).

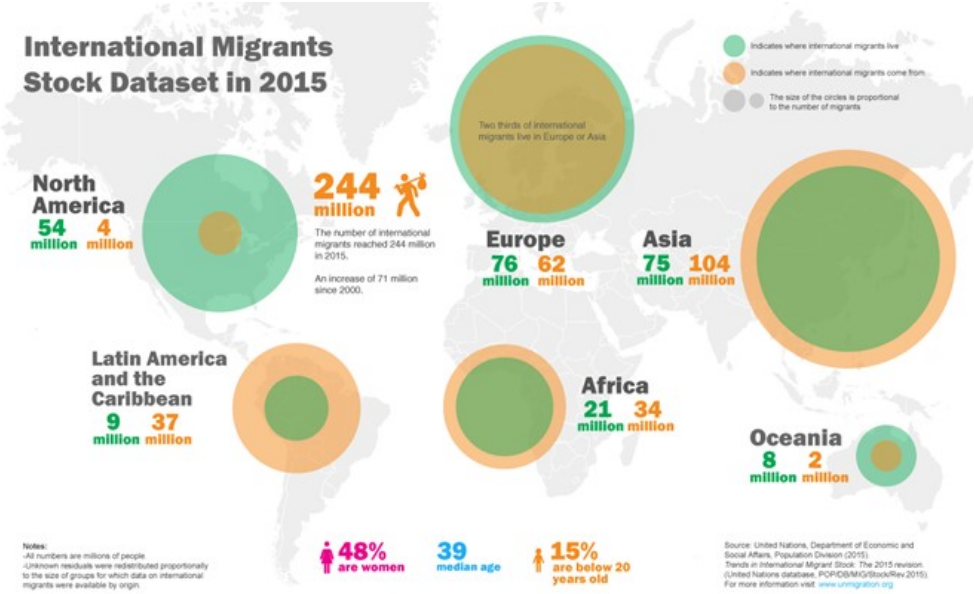

Figure 8: Worldwide emigration and immigration, UN 2015

(Green areas indicate where migrants live, orange areas are where they come from)

In addition to immigrants speaking a different language, not necessarily being able to contribute to the economic capital of their hosts yet requiring social assistance, they may not share the same religion as their hosts. Current figures are difficult to find, but data for 2010 indicate that Christianity and Islam are the religions practised by the highest proportions of international migrants (Pew research, 2007)[16] yet the West is increasingly secular: adjustment is required by both hosts and migrants.

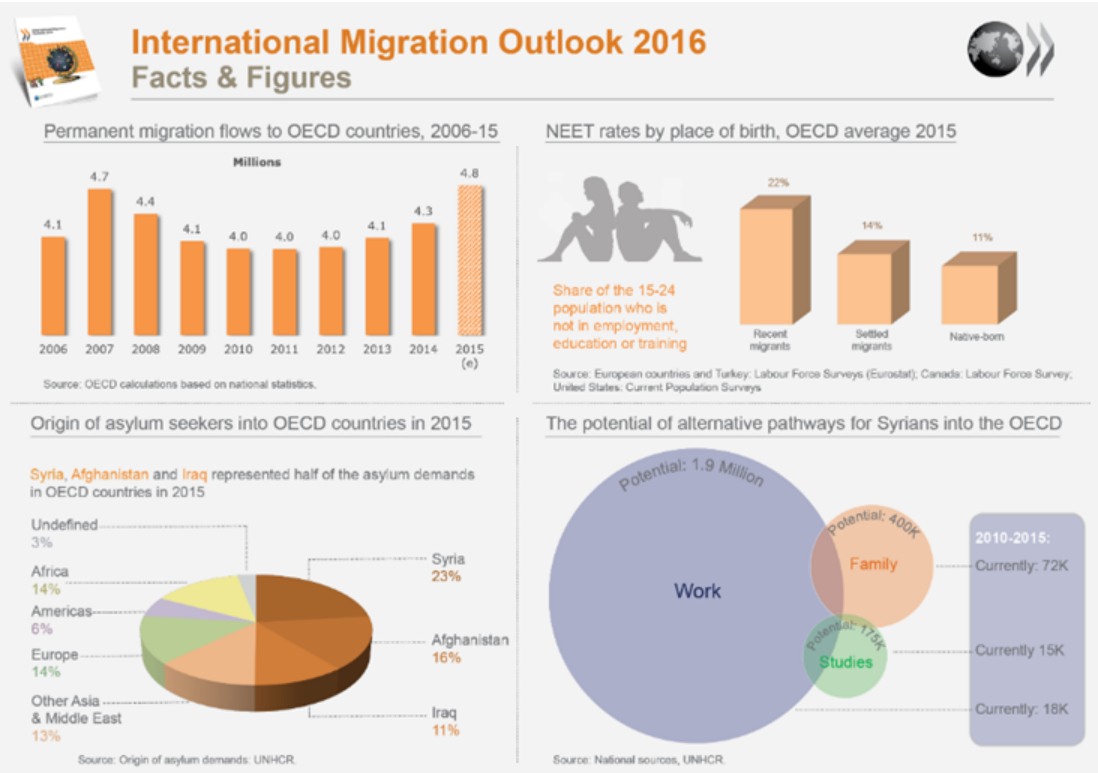

Figure 9: International Migration[17]

Such social changes threaten individuals' sense of identity and that of a community, as illustrated in Figure 10.

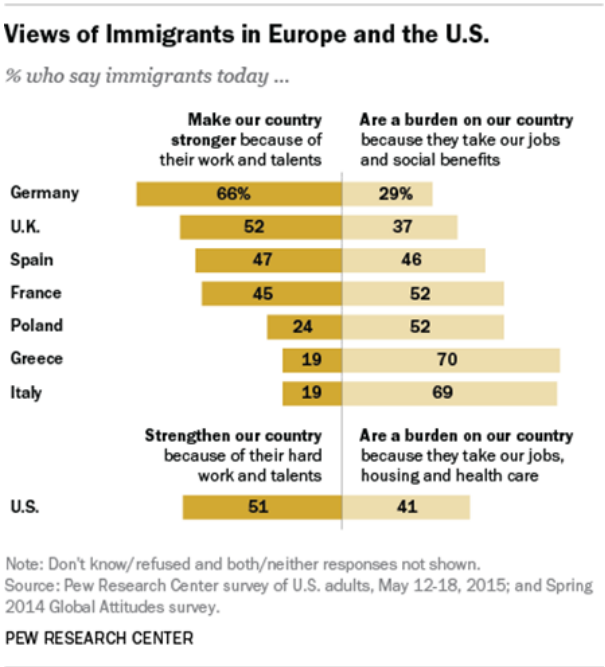

Figure 10: An example of asylum seekers' perceived impact on host communities[16]

It is simplistic to classify people simply in binary terms e.g. male, female, British, Indian. Exposure to more and more alternative cultures and beliefs, challenges once-fixed perceptions and values. The response may be resistance to these influences or assimilation of new values or practices.

Assimilation does not necessarily mean losing one's original sense of identity but rather that more layers are added. Ideally, individuals can move comfortably between these according to the context, though it is acknowledged that such ease takes time and willingness to achieve. These are adjustments which both individuals and communities must make in the interests of sustainable wellbeing.

Implications for sustainability of wellbeing

Clearly, personal wellbeing is significant for optimising individual life. It has become more important as life expectancy increases and globalisation and migration impact individuals' work and social conditions. Exposure to different practices and values may threaten individual and cultural perceptions of identity. The process of adaptation can undermine the mental

health of those whose traditional beliefs are threatened by those of their dominant community, and by individuals who are less able to adapt. For all of these reasons, it is essential that, at the individual level, we take responsibility for our personal wellbeing.

As members of local and global communities, we have a duty to act responsibly, understanding that our own choices will have social consequences. The responsibility is mutual: policy-makers must also act in the best interests of their communities. This brief review of some of the challenges that we face today, and which will, arguably, increase in future years, alerts us to the need to act now.

Figure 11: 5 ways to wellbeing[18]

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Cultivating Ecological Understanding And Engagement With The World Through Imaginative Ecological Education (IEE)

Gillian Judson

Gillian is a Lecturer in the Faculty of Education and is one of the Directors of the Imaginative Education Research Group at Simon Fraser University. Her published work and teaching show how we can routinely engage students' imaginations (pre-K through graduate school) to ensure effective learning across the curriculum. Her research is primarily concerned with sustainability and how an ecologically sensitive and imaginative approach to education can both increase students' engagement with, and understanding of, the usual content of the curriculum but can show it in a light that can lead to a sophisticated ecological consciousness. Her recent books include A Walking Curriculum: Evoking Wonder & Developing Sense of Place K-12 (KDP, 2018), Engaging Imagination in Ecological Education: Practical Strategies For Teaching (UBC Press, 2015), and Imagination and the Engaged Learner: Cognitive Tools for the Classroom (Teachers' College Press, 2015). Gillian became an active and valued member of the Lifewide Education and Creative Academic team in 2017.

Introduction

In this article I'd like to suggest that learning for a sustainable world involves learning to think and act ecologically. Education has a key role to play in the learning process, but, in my view, the ways we currently do Ecological Education aren't very effective. If we are to live sustainably—meaning that we have both the will and habit to act in sustainable ways—we need a means of teaching the next generation that will enhance and develop their ecological understanding and their sense of embeddedness in a living world. The approach I propose is called Imaginative Ecological Education (IEE).[1]

The IEE approach is relational; it encourages relationships of all kinds. But it is also contextual. It's not just the human relationships we're interested in cultivating through IEE. We want to develop many different human beings' relationships with the world: an ecological approach is one that emphasizes *relationships in the contexts in which relationships happen.*

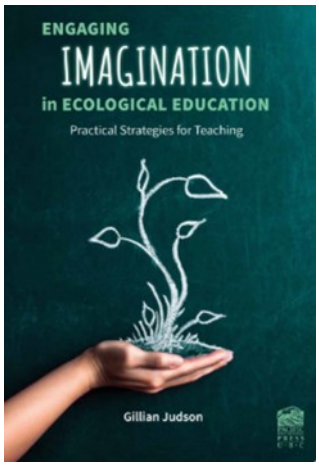
What Is Wrong With The Current Way We Do Ecological Education?

The development of ecological understanding is often cited as the aim of Ecological Education. To understand ecologically is to make sense of the human world as part of, not apart from, nature; it is to understand humankind's involvement in all life. The problem, however, is that Ecological Education as it is often taught, is ill-equipped to achieve this aim.

There are at least two major obstacles to developing ecological understanding in schools[1]. The first is that current approaches to Ecological Education neglect the imagination in theory and practice. As a result, the ends and means of Ecological Education are misaligned; the ways students are learning about the natural world—and the pedagogical approach teachers are using to plan their lessons—are ill-suited to develop adequate ecological understanding (Judson, 2010, 2015).

Understanding ecologically has an emotional core. One's knowledge about ecological processes and principles is made meaningful and personal by an emotional attachment to the natural world. One of the implications of this attachment is a sense of care or stewardship towards the Earth. We rarely acknowledge, however, that ecological understanding requires imagination, that it has, indeed, an emotional and imaginative core. At both theoretical and practical levels there is very little work in the field acknowledging the importance of imagination for the development of ecological understanding. Bringing imagination to the core of ecological education theory and practice is what IEE is all about.

The second problem is the peripheral position of Ecological Education in the curriculum. In mainstream schools Ecological Education is, more often than not, tied to particular units of study in particular subject-areas such as science or social studies. It is often considered an add-on to an already extensive curriculum, rather than a more comprehensive approach to how everything might be taught. IEE is a cross-curricular approach that addresses this problem by indicating how all topics we teach can be made imaginatively and ecologically engaging.



Ecological Education programs are in a rather difficult situation. On one hand they strive to fulfil a mandated curriculum and on the other to fulfil the overarching goal of emotionally and imaginatively engaging students with their world. Despite what may, on the surface, seem like suitable pedagogical practices, current approaches to Ecological Education are ineffective when it comes to achieving this larger goal. Why? Because Ecological Education pedagogy—at both theoretical and practical levels—tends to pay little attention to the distinctive features of students' emotional and imaginative lives. Often the pedagogical approaches we use in Ecological Education are inherently antithetical to the goal it aims to support; our means and our ends are misaligned. I'd like to suggest that emotion and imagination form the heart of ecological understanding. We need imagination to envision new possibilities and we need emotion to make knowledge of our world memorable and meaningful. It's our emotional responses to the world around us that make our knowledge meaningful in ways that encourage us to act in a particular way. Without the will to act in ways that demonstrate ecological awareness, our knowledge has no effect or consequence.

'Imaginative Education (IE)[2]'—a teaching theory and practice based on the ways in which we engage emotionally and imaginatively with the world around us—is essential to effective Ecological Education. It provides a way to both teach the curriculum in meaningful ways and support the development of ecological understanding in ways that engage the emotions. It nurtures the heart of ecological understanding. Combining the ideas and tools of Imaginative Education (IE) with the contexts and ecological ways of thinking and being of Ecological Education leads to Imaginative Ecological Education.[1] We are in a better position to deal with the challenges of Ecological teaching and learning when our practices and intentions align.

Imaginative Ecological Education (IEE): Brief Introduction

Building on the premise that human beings perceive, feel, and think together—that they are, in David Kresch's neat term, "*perfinkers*"—IEE aims to develop students' somatic, emotional, and imaginative bonds with the natural world generally, and with specific Places in particular. (Note: Are you on Twitter? I am. I am @perfinker of course!)

To achieve these aims, IEE has three working principles—**Feeling, Activeness,** and **Place/Sense of Place**—that come together in theory and practice. **Feeling** acknowledges the imaginative core of all learning and of ecological understanding. In order to engage emotions and imagination in everything we are teaching, the cognitive tools approach of **Imaginative Education (IE)** is required. **Activeness** acknowledges the central role of the body's understanding for development of ecological understanding. In order to experience one's interconnectedness in a living world we need to take time to evoke the body's tools for learning. **Place/Sense of Place** acknowledges the role of one's personal connections with our natural and cultural contexts for the development of a sense of stewardship for the Earth. IEE is particularly interested in engaging the imagination in this Place-making process and does so by employing what I call *Place-making cognitive tools*.

A teacher who practices IEE must begin with engagement. It is essential to ask, ***What engages me emotionally and imaginatively?*** (Finding our own emotional connection is the first step to creating an imaginative context for our students.) The second question we should ask as an IEE practitioner is, ***How can the body the experience this topic?*** We need to be intentional in enhancing and understanding the body's engagement in the world. I'm not just talking about sensory engagement, however. I'm talking about the powerful emotional responses of our bodies participating in the world that support learning, meaning-making, and memory. Thirdly, we need to ask, ***What does the topic mean in this particular Place?*** IEE is a Place-based, a context-specific, approach. Answering only one of these questions isn't enough: we need our emotional engagement, we need our somatic engagement, and we need engagement with Place. Let's look a bit more closely now at each principle:

Feeling - Engaging Emotion And Imagination

Emotions come in many forms and endless degrees. Wonder, awe, surprise, curiosity, delight, calm, compassion, and comfortable familiarity are examples of the kinds of feelings IEE seeks to nurture in students as they encounter the natural world. Why? Because, helping students come to feel something about the world around them as they learn about it contributes to the sense of connection and care for nature at the heart of ecological understanding.

Tips for Imaginative Educators – Cognitive Tools
http://www.educationthatinspires.ca/tips-for-imaginative-educators/

To ensure students' emotional and imaginative engagement, teachers will employ a cognitive tools approach to teaching. **Cognitive tools** are the imaginative means in which we make sense of the world around us; they engage our hearts and minds simultaneously. Teachers of students in primary and elementary school should employ the imaginative means that students are already employing as oral-language using beings: story, abstract binary oppositions, metaphor, vivid mental imagery, rhyme, rhythm and pattern, games, drama and play, and the recognition of mystery, among other tools. (See the **Tips For Imaginative Educators series** on imaginED for a detailed explanation about each of these cognitive tools and how to employ them.) These are some examples of the imaginative ways in which oral language using children are engaging with the world around them. Employing these tools in teaching can make any topic more meaningful. Teachers in middle and high school should focus on narrative structuring, the extremes of experience and limits of reality, the heroic, students' sense of reality, and, of course, the sense of wonder, among other tools that come along with the development of literacy, in order to ensure the emotional engagement of their students in subject matter. (Read more about the different *kinds of understanding/ imaginative lives* students develop and how you can tap into those via the link above).

Activeness: Engaging The Body

Arne Naess was the highly influential Norwegian philosopher whose ideas about ecology and humans' relationship with the environment have informed and enriched many of today's green activists and movements. His key notion of "deep ecology" is the idea that all of nature matters and deserves equal consideration, not just those parts that impinge upon humans.

Simply because students are actively walking in the forest or are digging soil in a garden does not mean that they are necessarily engaged in learning or that they are developing a sense of closeness with nature. In IEE, the Activeness principle reminds us to be constantly thoughtful about how to engage the body's tools for learning so that we may come to feel something for nature based on our immediate encounters with the world around us.

Arne Naess's[3] differentiates "being active" and "Activeness" as two different kinds of relationship in which one engages with nature. Being active involves movement of the body in activities such as play or sport, an externally manifest relationship that has limited impact on our understanding of nature. In contrast, Activeness is an internally manifest relationship and potentially has the most impact on our understanding of nature. While Activeness may be achieved through physical activity, it may be better characterized as "lingering in silence" or as "pause"[3: 2-3]. It may indeed appear like inactivity. Naess's distinction between activity and activeness is useful because all too often, or so it seems, the involvement of the body in learning is of the "being active" rather than "Activeness" variety.

In IEE, the Activeness principle reminds us to pause, as part of learning, on a more regular basis. By pausing and being thoughtful about how to engage the body in learning a topic through a direct encounter with the world, we open up the possibility for our students to perceive something new, something *extraordinary* in the "ordinary" places in which they live, that they may not otherwise notice. Activeness involves affording students opportunities to feel their connectedness with the world around them.

To fulfil this principle, teachers need to consider the following in their teaching:
How does the body participate in this story?
What activities can engage the learner somatically in learning about the topic?
How can students' sense of relation to the world around them be engaged?

Place/Sense of Place: Engaging With Local & Personal Contexts

Everyone everywhere ascribes meaning to the spaces of their daily lives. We are, in Greenwood's (formerly Gruenewald's) [4,5] terms, "Place-makers." The meanings we attribute to contexts help us to situate ourselves in the world and to feel a sense of belonging. Underlying ecological understanding is a sense of Place that has, at its heart, an understanding of, and emotional connection to, nature.

Engaging with context, with Place, the third principle of IEE, is centrally concerned with developing students' sense of Place—a personal relationship with one's context as well as a certain depth of knowledge about it. Affective and cognitive dimensions weave together to form a sense of Place that involves feeling close to nature and knowing about the soil underfoot, the flora, fauna, sources of water, and rock structures. A sense of Place is valuable not only for the knowledge one gains of context but, perhaps more importantly, for the emotional bond that can form. It is this emotional bond that may inspire people to live sustainably.

Everyone everywhere can help to develop students' sense of Place through teaching. IEE is not a project for the rural teacher but, rather, for all teachers. Building on the premise that wildness or wild nature is everywhere (including our towns and cities), and that we are born with an innate sense of connection with nature, there is a potential in all contexts, whether urban, suburban, or rural, to bring the natural context into focus as one situates oneself in the world. Could this be easier in rural Saskatchewan than in downtown Detroit? Probably. Even so, is it not possible, by teaching in a certain way, and by providing students with opportunities to emotionally engage with the natural world wherever they live, to bring the natural dimension of their own contexts into focus? This is where IEE can play a role. Through engaging students in Place-making activities we can nurture our students' emotional attachments to features of their local natural community. Whether in local parks, in forests or gardens, we can afford children opportunities to develop emotional bonds with the natural world and to explore and to create special places as they situate themselves in their world. By doing so, we may nurture students' attachment to and understanding of Place.

IEE considers the imaginative ways in which we make meaning of our contexts—that is, the ways we build a sense of Place through what might be called Place-making (cognitive) tools. There are at least three Place-making (cognitive) tools that may be employed to nurture students' sense of relationship to their natural contexts. Whether it be in the baby's initial sensory explorations of the world (**the sense of relation tool**), the young child's emotional connection to "binky" or to some other object, process or person (**the formation of emotional attachments tool**), or the child's interest in creating forts and hide-outs (**the creation of special Places tool**), human beings actively engage their imaginations and emotions in building a sense of Place. Place-making tools will take a prominent place in the imaginative ecological educator's toolkit, supporting ecological understanding through increased knowledge of and connection to Place.

Place-making (cognitive) tools
Sense of relation tool
Formation of emotional attachments tool
Creation of special places tool

IEE in Action: The 'Walking Curriculum'[6]: A Simple Strategy For Engaging Learners With The World Outside The Classroom And Developing Ecological Understanding

The simple act of taking a walk with a curricular focus or purpose—can have multiple positive consequences. For example, walking can support students' health and wellbeing by getting them moving. It can also emotionally and imaginatively engage learners by changing the "context" of learning ("context" meaning both location and the form of attention and involvement required of students).

On a deeper level walking-based educational practice (a Walking Curriculum[7]) connects curriculum topics with/in the real world. A new level of curriculum relevance can emerge for students as a result. Going even deeper, walking-based practice can support students in developing a sense of Place, an emotional connection to some aspect of the wildness in the world that surrounds them. Sense of Place involves a sense of community. Sense of Place is what can change how our students understand the world of which they are part—it can help them re-imagine their relationship with the natural and cultural communities they live in [8,9].

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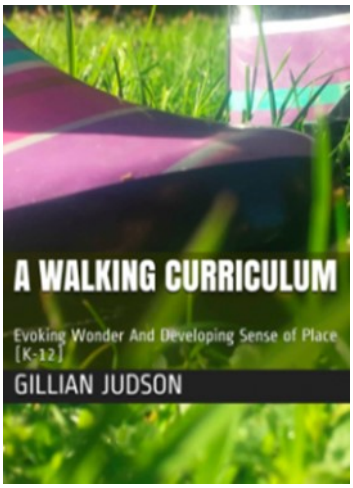
The Walking Curriculum challenges teachers to re-imagine how they teach and it encourages teachers to personally re-connect to Place and community. The **#getoutside** message involves acknowledging that our communities—natural and cultural—are teachers, too. The Walking Curriculum breaks down concepts of "school" that keep students inside and inactive. The Walking Curriculum approach offers practical strategies and examples for outdoorlearning, but, more profoundly, it encourages teachers to have a new outlook on their teaching. It aims to empower teachers to #getoutside (physically outside and, figuratively, "outside" by rethinking how they engage their students). I invite teachers to grow beyond the book within an online community of K-12 imaginative ecological educators.



The Walking Curriculum is readily useable for K-12 teachers. The activities described can be easily adapted and used in all contexts—limited additional time and/or resources are required. It reflects principles and practices of Imaginative Ecological Education as it offers walking activities that engage student imagination and cultivates emotional connection with Place. The 60 walks provided in the resource reflect a variety of themes, perspectives, and motivations. For example, students may be asked to find things (such as shapes, spaces or lines, evidence of growth or change, "the best" hiding places), to change perspectives (imagine being a beetle, a detective, or a visitor from outer space), to encounter the world differently (emphasizing one sense over another or moving through space differently), or to seek evidence of human-nature relationships. In all activities, the aim is to deepen awareness of the particularities and meaning of Place.

Since publishing the Walking Curriculum in January 2018 it has been a pleasure to work with colleagues in Higher Education to see its relevance in that context, too.

Walking Curriculum Relevance In Higher Education

In a recent #creativeHE conversation[10] participants were invited to create or engage in their own 'walking curriculum'. These posts were made by participants to illustrate how a walking curriculum might be used in higher education.

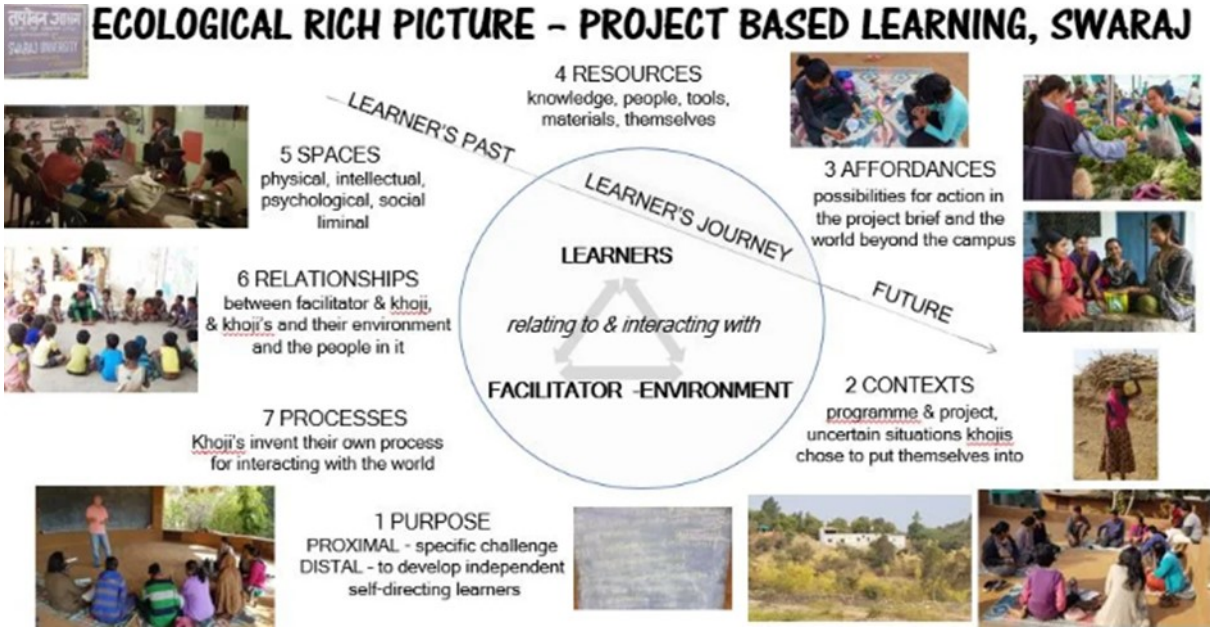
> The Walking Curriculum provides an easy-to-use, learner-centred and developmentally appropriate activities that make outdoor learning – regardless of whether you're surrounded by trees or concrete – memorable, meaningful and fun. (Karen Hiscott, School Principal)

***Norman Jackson**: Two weeks ago I visited Swaraj University near Udaipur in NW India. This university offers two year programmes aimed at developing social entrepreneurs and its educational philosophy is to enable students (which they call khojis – 'seekers') to develop themselves as autonomous and self-directing learners. They have very few classrooms and much of the learning is experiential, and outside, either project-based or through work placements.*

During my visit khojis engaged in a week long project. They had to organize themselves into teams of 2 or 3, decide what to do and go and do it then bring back what they had learnt to the group. The task was – go out into the world outside the campus and interact with it in ways that they chose, and to build a perspective based on these interactions and share it with the rest of the group.

From such a simple brief, students pushed themselves outside their comfort zones and some very interesting forms of interaction were developed. From the learners' perspective the whole process was one of tackling the unknown and inventing, adapting and improvising in response to what emerged. To achieve this they had to create their own ecologies for learning (see figure below).

I wonder how such an exercise could be transferred into other disciplinary contexts. You can read about my experiences in my Jan 12th blog post. http://www.normanjackson.co.uk/scraps-of-life-blog



***Sandra Sinfield** Definitely transferable to all disciplinary contexts I feel. One of our projects was to send our students around the university observing formal and informal learning and learning spaces - and considering what was promoting or impeding learning. The first year, we asked the students to give poster presentations... But after that we decided to push them further - and asked them to represent their findings as poetry or jigsaw puzzles or 3D images, animation, video, Cabinet of Curiosity, comic book... We then had an Exhibition of their answers which was an exciting and joyful occasion...*

***Gillian Judson**: I took the #walkingcurriculum challenge!.... I wanted to see how I might teach my students (who are k-12 teachers) about the difference between "story" (could be fiction/non-fiction, the content is key) to the storyform or narrative (more to do with the shaping of the information. Evoking emotional response/imagination is key).*

Here is my idea: I would get my students out exploring the community around campus. They would be tasked to capture images (they could evoke them later with words for us; or take pictures) that would either fall into the #story or the #story-form category. We would debrief their choices and, in the process, unearth the power of the story as a way of human thinking/teaching.

Here's some reflection on that process and also my own work. #story-form (Collage) How do we teach about Spring to kids? We could shape it in the story-form if we focus on colour. We can use colour as way of emphasizing the metaphorical (and literal) sense of rebirth and new life. The MAGIC of spring—the surprise? the beauty? (What might our heroic quality be to shape the narrative?) We could frame the actual biological process of life cycle of plant and/or situation of the Earth with dramatic emotional ideas of life/death or renew/end. (Snore #notstory-form: "Spring is one of the four conventional temperate seasons, following winter and preceding summer." (wikidpedia Snore.) #story-form (Video) What's the story on walking?

The #story-form might evoke what Dan Rubinstein (author of Born To Walk) calls "the magnificence of bipedalism". A story -form evokes the wonder, life- and world-changing impact of humans getting up on two feet. #notjustawalk #story (Collage) Here I have images of particular things happening in my community or evoking something historic. The content is key.

- *Think—This is a local community arts project using ribbon. The next two words are "and wonder"*
- *Vacant Lot—This lot is at the centre of a controversy between landowner and developers. Lawsuits!*
- *Street Corner—This is the site of a tragic shooting a few years ago.*
- *A nut—One chestnut. In the middle of the school field. How did it get there? What has this chestnut experienced?*
- *Wooden village—For days local kids have been collecting sticks and building this village in miniature near my home in a local park. It is alive with stories for these children!*
- *Bird house--Someone built this home to feed the birds--was it sunny on the day it was hung on this fence? How did it end up crooked?*

Visit **imaginED** for further examples of the relevance of a walking curriculum to higher education. & latest post on using the Walking Curriculum for engaging pre-service teachers in studies of Teacher Professionalism.

Concluding remarks

Living sustainably—caring about the Earth and acting in ways that support its wellbeing—requires more than knowledge of the planet's ecological challenges. It requires us to have emotional and imaginative connections with real Places. It requires us to *feel by imagining* the consequences of our everyday actions on these Places and current and future inhabitants of these Places. Imaginative Ecological Education, or IEE, is an approach that aims to educate in a way that nurtures the heart of our sustainability aim. This brief introduction aims to show how IEE can be used to teach any learner, anywhere, at any age. It's a broad philosophy, an approach to all teaching—not just teaching science, or teaching kids. Instead, it's a way of engaging emotion and imagination and the body with the natural world while doing mathematics or language, arts or social studies, or science. It's a way of thinking about and planning topics so that learning engages emotion and imagination and so that Place comes into focus. IEE draws learners' attentions to Place, to their bodies, to emotions and imaginations.

Acknowledgements

This article is based on my writings an interview and a talk I gave in 2016. To find out more about Imaginative Ecological Education please visit **imaginED** www.educationthatinspires.ca or the **IEE website**: http://ierg.ca/IEE/
Gillian Judson Interview: What is Imaginative Ecological Education? https://www.youtube.com/watch?v=1bnkjofMUjo
Gillian Judson The principles of Imaginative Ecological Education https://www.youtube.com/watch?v=bFOBqHd5UqY

Image credit: Why Learning Outside in Nature Is Good for Teachers and Students
https://www.mountainriverschool.org/resources/2016/11/12/why-learning-outside-in-nature-is-good-for-teachers-and-students

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Lifewide and Ecological Perspectives on Learning to Sustain Ourselves and our Complex Worlds

Norman Jackson

Sustaining ideas and beliefs to sustain ourselves

Our ideas and beliefs are an important part of who we are, and it's interesting to reflect on how we sustain the ideas and beliefs we care about by applying, adapting and developing them to new contexts. The idea of lifewide learning grew out of my interest in creativity and how we might encourage and recognize the creativity of higher education learners in all the places they choose to learn, develop and achieve while they are studying, not just the academic domain[1]. The second stage of development took place when I re-entered a university environment and tried to apply the idea of lifewide learning and education to the higher education curriculum[2,3]. A third stage has taken me down the pathway of viewing learning as an ecological phenomenon in which the ability to flourish throughout a long and probably messy life, is dependent on our ability to continually create new ecologies for learning, developing and achieving[4] and I am currently exploring this idea of ecologies practice[5]. Each context along this 13 year long trajectory provided fresh stimulus and reasons for sustaining my interest and involvement. This continuous growth of an idea is part of my own intellectual growth and wellbeing and contributes to the way I sustain myself as a person who cares about these particular ideas.

In this issue of the magazine we are exploring yet another context in which to consider the idea of lifewide learning and learning ecologies. We are interested in both the way we develop ourselves to sustain our own learning life, and the ways in which we help sustain the environments we inhabit.

Sustainable development and the wicked problem confronting higher education

Sustaining anything as complex as the world and all its ecosystems and humanity in all its diversity is the most complex of all 'wicked problems'.[6]

Figure 1 Characteristics of wicked problems[6] (see image credit for source).

When we talk about learning for a complex world we are talking about a constellation of wicked problems that we and our society are creating and immersed in whether we recognize them or not. This extract from Daniel Wahl's article explains why.

Wicked problems, defined by Rittel and Weber, are "a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications of the whole system are thoroughly confusing" I would expand that definition to include not only social system problems in isolation, but also the problems associated with the reciprocal effects between social systems and natural systems that provide the basis for th eir existence. Since the only true constant in natural process is change, social and ecological manifestations of this process are also subject to constant transformation and adaptation.[7]

The world I knew as a boy is not the world I now experience - volatile, uncertain, complex and ambiguous (VUCA[8]). It's a world full of people, Governments and organisations doing stuff that I don't particularly like but, thank goodness its also full of people, families and communities doing stuff to try to make the world a better place. It's a world that is perplexing and often disruptive. A world that is perpetually unfolding that requires us to continually learn, adapt and change and sometimes to reinvent ourselves. Sustainability is the global 'wicked problem'[6] of our era because of the enormous VOLATILITY and

change in our planetary ecosystems brought about by the uncontrolled growth and profligacy of mankind – particularly the so called developed world. Sustainability is a COMPLEX matter with a myriad of issues and challenges and no simple solutions, only a myriad of possibilities that have to be customised for the particular contexts and circumstances of people's lives. There is much AMBIGUITY and perplexity embedded in the problems related to sustainability and how to tackle them and at this point in time the only certainty is that we are faced with an UNCERTAIN future. But the OPPORTUNITY and AFFORDANCE to act in ways that are more likely to sustain our futures is also available in every aspect of our lives.

Figure 2 A representation of the world in which the issue of sustainability is embedded

VOLATILITY
our world is full of change and turbulence demanding our attention & response

UNCERTAINTY
very few things are predictable in the long or even medium term

COMPLEXITY
abounds – it emerges from information, culture, politics, business, environment, everywhere….

AMBIGUITY
most problems and challenges are not clear: we are often perplexed and confused and we have to deal with it.

OPPORTUNITY
to draw on our beliefs & values to find challenges that are meaningful, & satisfying that inspire, engage and enable us to make a positive difference to ourselves and the world

OPPORTUNITY
to work in the Volatile, Uncertain, Complex and Ambiguous world by venturing into unfamiliar situations, where contexts & challenges are not known, risks are high & persistence, fortitude and resilience may be required

AFFORDANCE
to draw on our own motivations, values and imaginations to perceive and interact with the world, experience, feel, be resourceful, learn, develop, create & achieve things we value

Figure 3 Symbolic representation of what learning for a complex world means

In 2006 when we began our work at the SCEPTrE Centre at the University of Surrey we wanted to create a story to guide and give meaning to our work. Through a conversation with artist Julian Burton we created a picture on our wall (Figure 3). It's a bit rough but it conveys the idea that learning is a messy business in a messy world.

At the core of this visual narrative is an idea that gets to the heart of the matter of sustainability. Its what Stephen Covey calls the habit of making particular and considered choices, 'Between stimulus and response there is a space and in that space lies our freedom to choose our response. In those choices lie our growth and happiness [9:42] To which we might add – in those choices lie the means of sustaining the world. Covey says,

"Your life doesn't just "happen." Whether you know it or not, it is carefully designed by you. The choices, after all, are yours. You choose happiness. You choose sadness. You choose decisiveness. You choose ambivalence. You choose success. You choose failure. You choose courage. You choose fear. Just remember that every moment, every situation, provides a new choice. And in doing so, it gives you a perfect opportunity to do things differently to produce more positive results' Stephen Covey ' The 7 Habits of Highly Effective People[10]

From the perspective of sustainability, it is as important to learn how to sustain our complex world as it is to sustain ourselves in all that complexity.

Figure 4 Learning how to sustain a complex world and how to sustain ourselves in it.

The central proposition where sustainability is concerned is choosing to respond to a particular stimulus in a way that considers the wellbeing of others and future generations, not just our own wellbeing. At the heart of sustainability is a bigger purpose than ourselves. This is where education for sustainability plays an important part in informing the decisions we make about what we choose to do. I am arguing here that we can enhance our ability to respond by seeing our own practices as ecological connected to the material and biological world and the people in it in ways that only we can see and appreciate, and which only emerge in the course of action.

Deep ecology

Fritjof Capra provides compelling arguments for the need for all of us to develop ecoliteracy. 'In the coming decades, the survival of humanity will depend on our ecological literacy, on our ability to understand the basic principles of ecology and to live accordingly[11] Arguing that 'deep ecological awareness recognises the fundamental interdependence of all phenomenon…' 'Deep ecology does not separate humans – or anything else – from the natural environment. It sees the world not as a collection of isolated objects but as a network of phenomena that are fundamentally connected and interdependent [12:12]

The phrase "deep ecology" was coined by the Norwegian philosopher Arne Naess (left) in 1973 who developed a theoretical foundation described in these terms by Stephen Harding[13].
"Ecological science, concerned with facts and logic alone, cannot answer ethical questions about how we should live. For this we need ecological wisdom. Deep ecology seeks to develop this by focusing on deep experience, deep questioning and deep commitment. These constitute an interconnected system. Each gives rise to and supports the other, whilst the entire system is an ecosophy: an evolving but consistent philosophy of being, thinking and acting in the world, that embodies ecological wisdom and harmony."

What Naess and Capra are arguing for is an underlying ecological philosophy to guide human behaviour in the world in order to secure the future of the world. Fundamentally, they are arguing that we won't get very far in creating a culture that transcends other cultures that places sustainability at the core of our thinking and behaviour with the development of a world view that is deeply sympathetic to the ecology of the world. I argue that this idea connects with Stephen Covey's – 'life just doesn't happen', proposition: ie we have to make choices that are informed by a world view that is empathetic with sustaining the future.

Imaginative Ecological Education (IEE)

Gillian Judson's article in this magazine[14] illustrates how we might begin the process of educating for ecological awareness in school by developing learners' consciousness that they are part of living ecosystems through an Imaginative Ecological Education that harnesses imagination and feeling to make knowledge meaningful in ways that cause people to act with ecological sensitivity. This type of school-based educational approach would lay the foundation in higher education for thinking about learning itself as an ecological phenomenon.

'Understanding ecologically has an emotional core. One's knowledge about ecological processes and principles is made meaningful and personal by an emotional attachment to the natural world. One of the implications of this attachment is a sense of care or stewardship towards the Earth. We rarely acknowledge, however, that ecological understanding requires imagination, that it has, indeed, an emotional and imaginative core. At both theoretical and practical levels there is very little work in the field acknowledging the importance of imagination for the development of ecological understanding. Bringing imagination to the core of ecological education theory and practice is what IEE is all about.'[14]

Learning as an ecological phenomenon

The symbolic representation depicted in Figure 3 is ecological in the sense it is attempting to show people in deep interactive and meaningful relationships with the world and other people. It provides the context for the fundamental challenge facing all teachers and educators, educational institutions and educational systems all over the world which might be expressed in a question like 'how do we prepare people for an ever more complex world?' I don't just mean preparing students for their first job when they leave university, I mean how do we prepare them so that they sustain themselves through the many challenges they will encounter over a lifetime of working, learning and living. From the students' perspective the same challenge is expressed in the question 'How do I prepare myself for the rest of my life?'… what sorts of things do I need to learn? what sorts of skills, qualities, dispositions and values do I need to develop? and what sorts of experiences do I need to have to prepare myself for experiences and situations I cannot begin to imagine?

Sustaining ourselves, the world and the future of humanity, provides an important context for the idea of a complex world and it leads us to reframe the questions posed above to pay attention to the impacts our actions and behaviours have on the world and consider the consequences for our environment. Not just the environment we are presently inhabiting, but environments in the future – ones that we will never directly experience ourselves. Concerns for our environment and the future lead to questions like,

'how do we prepare people not just to sustain themselves but to play a conscious and active role in sustaining the world'. Clearly, from the articles in the first part of the magazine, we can see how global policy leaders are trying to influence the behaviours and actions of Governments, educational systems and institutions in order to change the way whole populations think and behave. But what more could we do to promote awareness of our responsibility for sustaining the world and all its inhabitants?

Thinking about learning as an ecological phenomenon makes sense in terms of the ways we actually learn and achieve in a world that is not structured and scaffolded for learning in the way an educational course is[4,5]. It makes even more sense when we reframe what we are doing in higher education as helping and enabling people to prepare for a lifetime of working and learning in a world that we have to organise for ourselves working with all its volatility, uncertainty, complexity and ambiguity as well as opportunities it provides.

The model of a learning ecology I have developed [4,5] proposes that learning, development, creativity and achievement (and dispositions and qualities like confidence, imagination, adaptability, flexibility and resilience) are phenomenon that emerge from and through an individual's purposeful interactions and relationships with their environment. In the case of student learners, this environment is not confined to their academic institutional environment, but all the spaces and places they inhabit simultaneously across their lives.

Figure 5 identifies the key features of a learning ecology. The framework relates a whole thinking, feeling, acting person, to their circumstances and contexts, their needs, desires and purposes, and the situations they are dealing with. When someone encounters a new situation, problem, challenge or opportunity they use their senses and mind to perceive and comprehend the situation and act in ways that are appropriate for the context. Effectively, they create and inhabit an ecology that enables them to interact in a dynamic way with their environment and the particular things that matter to them within it.

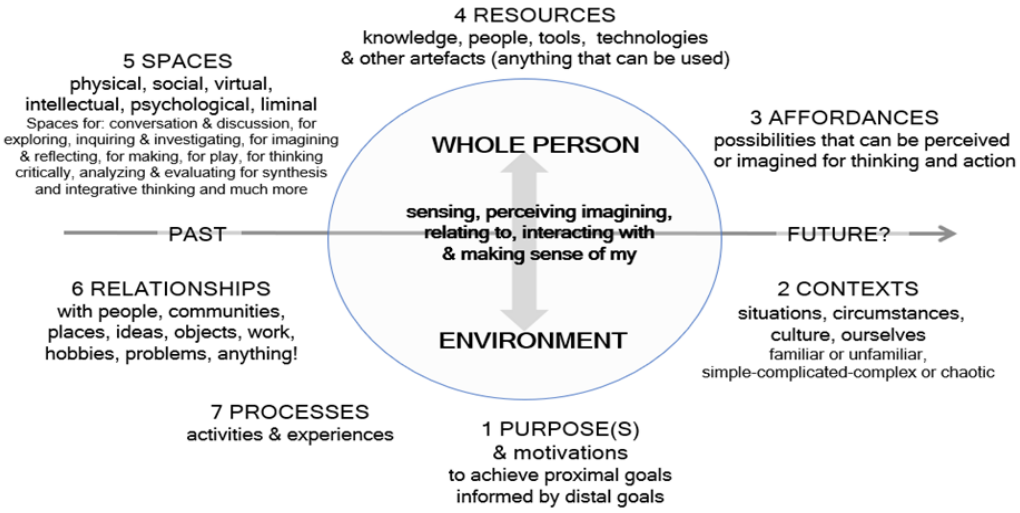
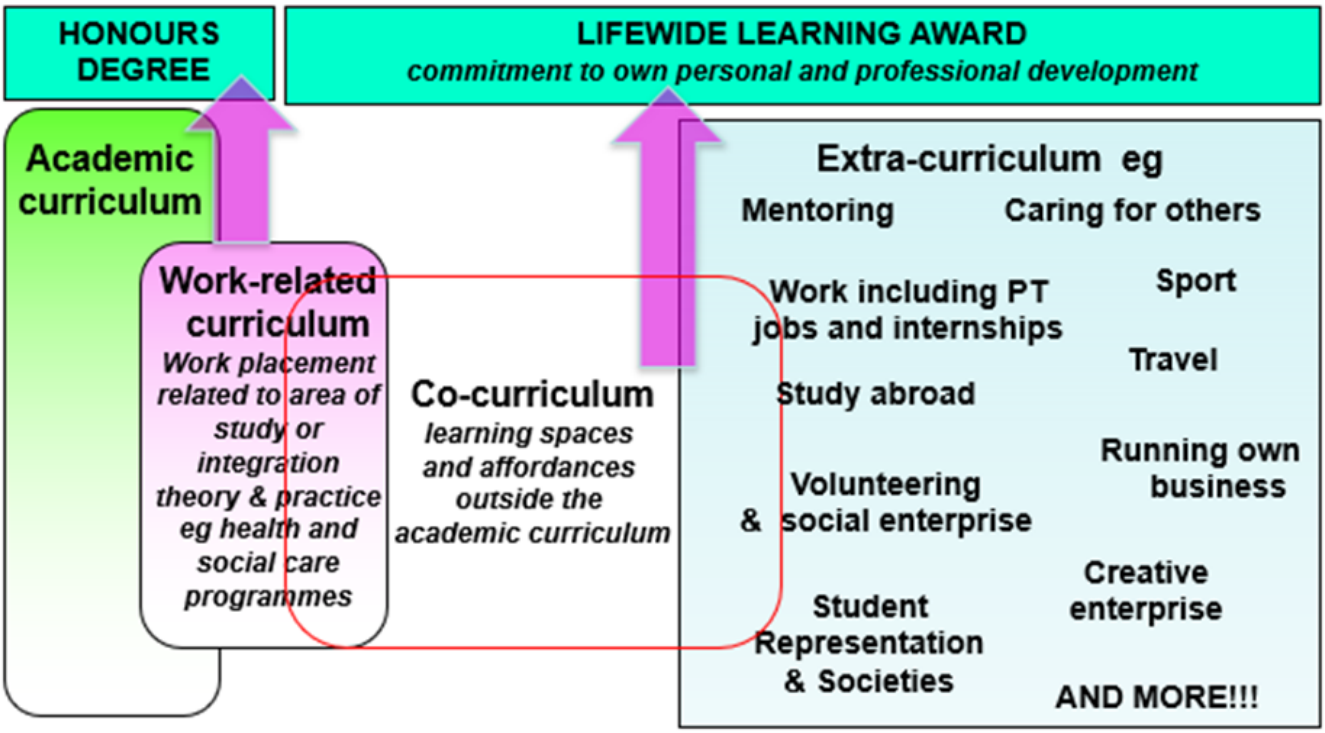


Figure 5 Learning ecology (Jackson [4,5]). The framework is a heuristic to make explicit some of the complexity involved in significant acts of learning and doing. The labels explain an aspect of the ecology but do not say how they interact. This is revealed in narratives of actions and activities. The components of the ecology do not stand in isolation. They can and do connect, interfere and become incorporated into each other.

Education for a sustainable world has to be much more than a cognitive process involving the assimilation of knowledge about the world and our effects on it (although that is important). The whole of life is learning therefore education can have no ending[15]and we have to experience the effects we and others have on the world for ourselves. Such experiences pervade every aspect of our life and this is where the idea of a lifewide curriculum becomes important (Figure 6). A learner who is conscious of themselves and their actions on the world, in all the domains of their life, is more likely to see themselves and their living in the holistic way that is necessary to think and act ecologically and in a way that is sensitive to the generic issue of sustainability.

Figure 6 Concept of a lifewide curriculum to encourage and support lifewide learning developed at the University of Surrey 2008-11[3]. This model of a curriculum embraces the stable, predictable, explicit and highly regulated academic curriculum world and the VUCA world and broader opportunities and affordances that are found in work-related, co- and extra-curricular domains.



A lifewide curriculum is co-created by a higher education institution, learners and perhaps other participants (eg organisations and communities outside a higher education institution. It contains affordance for developing knowledge about complex phenomenon relating to sustainability – via disciplinary and interdisciplinary curricular and the co-curriculum and for experiences through which more personal knowledge can be developed via work-related and extra-curricula activities. Most importantly it contains affordances for using such knowledge in real life everyday situations.

Many lists of competencies have been developed to support conscious thinking and action relating to sustainable development[15] A report by UNESCO (see box) presents a recent synthesis. Its interesting to note that the word 'ecology' is not mentioned yet it's through ecological processes and ecosystems that the living world manages to sustain itself. The idea of ecology might be implicit in such things as 'systems thinking', and the 'ability to understand and evaluate multiple futures' and 'integrated problem-solving competency' but the preferences is to use the language of the business world from where they have been extracted rather than the natural world.

A learner who is conscious of themselves and their actions on the world, in all the domains of their life, is more likely to see themselves and their living in the holistic way that is necessary to think and act ecologically and in a way that is sensitive to the generic issue of sustainability.

KEY SUSTAINABILITY COMPETENCIES UNESCO[16]

Systems thinking competency: the ability to recognize and understand relationships, to analyse complex systems, to perceive the ways in which systems are embedded within different domains and different scales, and to deal with uncertainty;

- **Anticipatory competency: the ability to understand and evaluate multiple futures – possible, probable and desirable – and to create one's own visions for the future, to apply the precautionary principle, to assess the consequences of actions, and to deal with risks and changes;**
- **Normative competency: the ability to understand and reflect on the norms and values that underlie one's actions and to negotiate sustainability values, principles, goals and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions;**
- **Strategic competency: the ability to collectively develop and implement innovative actions that further sustainability at the local level and further afield;**
- **Collaboration competency: the ability to learn from others; understand and respect the needs, perspectives and actions of others (empathy); understand, relate to and be sensitive to others (empathic leadership), deal with conflicts in a group; and facilitate collaborative and participatory problem-solving;**
- **Critical thinking competency: the ability to question norms, practices and opinions; reflect on own one's values, perceptions and actions; and take a position in the sustainability discourse;**
- **Self-awareness competency: the ability to reflect on one's own role in the local community and (global) society, continually evaluate and further motivate one's actions, and deal with one's feelings and desires;**
- **Integrated problem-solving competency: the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution that promote sustainable development – integrating the above-mentioned competencies.**

Competence is the ability to do something successfully and to keep on doing something successfully in different contexts and circumstances. For this list of sustainability competencies to be meaningful learners must engage in situations of sufficient complexity to do something that is relevant to demonstrate their capability to deal with the situation. Because of this the UNESCO report calls for 'action-oriented learning' for example projects and internships.

In action-oriented learning, learners engage in action and reflect on their experiences in relation to the intended learning process and personal development. The experience might come from a project (e.g. in-service learning), an internship, facilitation of a workshop, implementation of a campaign and so on. Action-learning draws on Kolb's learning cycle[17] of experimental learning, which has the following stages: (i) having a concrete experience, (ii) observation and reflection, (iii) formation of abstract concepts for generalization and (iv) application in new situations[17]. Action learning increases knowledge acquisition, competency development and values clarification by linking rather abstract concepts to personal experience and the learners' life. The role of the educator is to create a learning environment that prompts learners' experiences and reflexive thought processes.[18]

A key issue for higher education is whether disciplinary curricular are able to develop 'cross-cutting sustainability knowledge and competencies needed to deal with a wide range of sustainability challenges6'[16,17] through an action-oriented learning for sustainability strand in their curriculum. Kerry Shephard[19] draws attention to the sustainability of discipline-based world views that may have little connection with or relevance to a sustainability world view. It is much easier to create an entirely new interdisciplinary, issue- and challenge-based curriculum for the purpose of developing understanding, experience and competence in sustainability than to adapt existing discipline-based curricular. In general, higher education at least in the UK, does not form itself around inter- or trans-disciplinary inquiry. [But see for example the approach adopted by Swaraj University [20,21]]

"despite all the promises that higher education institutions around the world make with respect to student learning for sustainability, there is very little evidence that higher education's impact is anything other than 'more of the same' " [19]

Alternatively, the adoption of a lifewide curriculum would provide affordance for issue-based challenges created either by an institution (eg co-curriculum), or student determined participation in sustainability challenges in the wider world (extra-curriculum). The issue for higher education then, is how can such learner-led development be recognized and rewarded? One obvious answer is through extra-curricular award schemes that are now quite prevalent in the UK. This would an obvious area for future inquiry.

What disciplines are able to do well is explore what sustainability might mean in their particular disciplinary contexts. For example, a medical student in the UK should be introduced to the complex issue of sustainability in the National Health Service. In this way learning for sustainability can and should be contextualized in the disciplinary learning experience i.e. assimilated into the disciplinary world view held by students, alongside a broader lifewide world view being advocated through adoption of a lifewide curriculum.

Engaging emotions to develop and apply values

Kerry Shephard (like Gillian Judson) argues that the essence of education for sustainability is a quest for affective outcomes [22:88]. Higher education traditionally focuses on the cognitive domain of learning - what we know and understand, and how we describe, comprehend, apply, analyse, synthesise and evaluate this knowledge and understanding[22-24] But engaging with the world and learning through our actions and activities also involves the affective domain which includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes[23]. The affective domain includes[24]

Receiving Phenomena: Awareness, willingness to see and hear and focus attention on particular phenomenon.

Responds to Phenomena: Willingness to pay attention to and react to a particular phenomenon.

Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior.

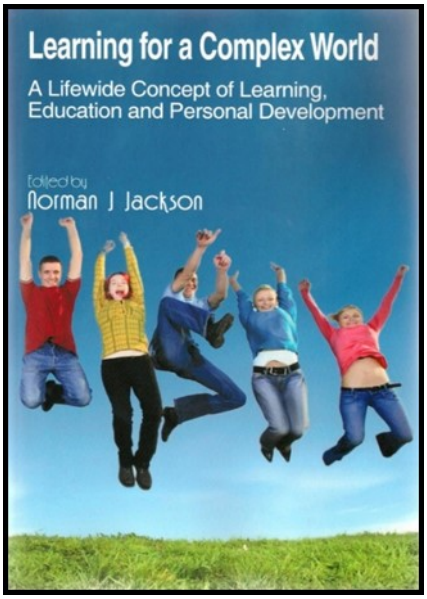
Organizing values into priorities by contrasting different values, resolving conflicts between them, and creating a unique value system. The emphasis is on comparing, relating, and synthesizing values and demonstrating attitudes or values appropriate to particular situations.

Internalizing values: Has developed their own value system that guides/controls their thinking and behavior. The behavior is pervasive, consistent, predictable and people who have internalized their values are committed to principled (value-based) practice but are willing to revise decisions and change behaviours in the light of new evidence. Students' motivation to learn and their emotional state whilst learning are also elements of the affective domain[25].

Developing our values and beliefs is more likely to occur when we are grappling with real issues and everyday dilemmas and problems in the real world, rather than processing information in an abstract academic context and writing an essay. So again, a lifewide curriculum provides the greatest affordance for learners to put into practice their knowledge, values and beliefs in the contexts of the things they care about.

The argument for universities and colleges to adopt a lifewide curriculum is to show learners that their efforts to develop themselves and make a difference to the world is something that is valued and that learning they gain through these activities can and should be recognized. In this way higher education can demonstrate a deeper level of involvement in the preparation of learners for a lifetime of learning in a complex but sustainable world.

Closing remarks



In this article I have tried to show how a lifwide curriculum offers greater affordance for developing the attitudes and capabilities required to engage and deal with sustainability challenges, and how seeing learning as an ecological phenomenon undertaken in all domains of life might contribute to the development of the types of understanding that are necessary to tackle sustainability challenges.

Of course, the default position in higher education is that students themselves, create their own lifewide curriculum as they pursue their courses and discover and participate in things that interest them outside their academic programme. The challenge for higher education is to recognise the lifewide dimension of students' lives by design. This way of thinking underpinned an experiment at the University of Surrey between 2008-11 the record of which can be found in a book I edited called 'Learning for a Complex World: A lifewide concept of learning, development and achievement.[26]

There are many ways in which a higher education institution can approach the recognition of learning through a lifewide curriculum. A synthesis of approaches being used and developed in the UK in 2014 is provided in Lifewide Learning & Education in Universities and Colleges[27].

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Image credits

Figure 1 Characteristics of wicked problems - CMU Transition Design, Irwin & Kossoff based on Rittle & Webber)
Figure 3 Learning for a complex world -drawn in 2006 by Julian Burton on the walls of the Surrey Centre for Excellence in Professional Training and Education, University of Surrey

Links

Lifewide Education: http://www.lifewideeducation.uk/
Lifewide Education Learning Lives Conference http://www.learninglives.co.uk/

Editor's note:

Just as we were about to publish Lifewide#20, we were delighted to receive an additional article from a young contributor. It is always a pleasure to have unsolicited contributions, especially from younger members of the community. We have therefore added this piece and hope you will find it of interest.

Using Interdisciplinary Learning in a Higher Education Setting to promote Sustainable Behaviours and Attitudes

Ellinor King

Ellie has always had a passion for sustainability and the natural world which she has graduated with a Masters in Psychology from the University of Auckland with a focus on using higher education to promote sustainable and ethical behaviors amongst the next generation of Kiwis. She aspires to carry on integrating education and sustainability in her future endeavors.

The University of Auckland's Department of Psychology, Sociology and Chemistry recently implemented a new teaching unit with the aim of increasing the sustainable and ethical knowledge, consideration and behaviours of the individuals who took part in the teaching unit.

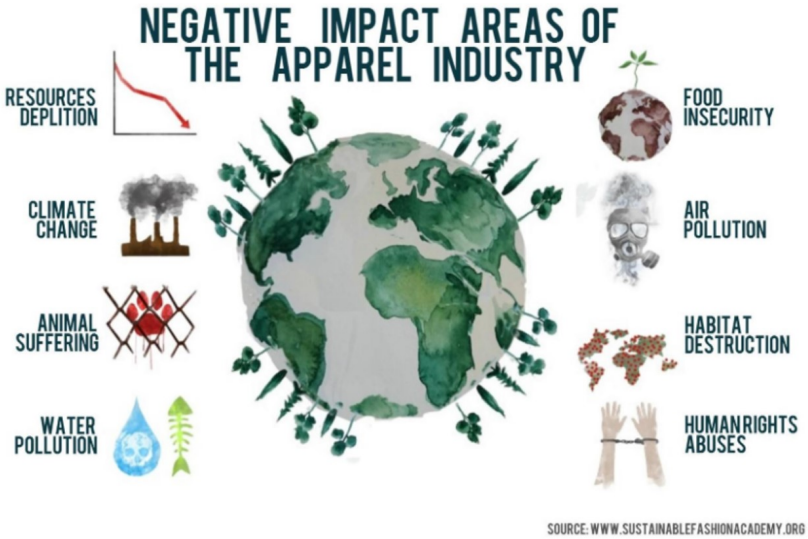
The future of higher education lies in its moral responsibility to work towards a sustainable future. For students to become citizens in the 21st century, it is largely up to universities to prepare them to live within the limits of our natural ecosystems with modern technology such as diesel cars and activities like deep oil drilling. This can be done in four steps (Cortese, A., 2003). First and foremost, by changing the context in which learning takes place, to emphasize that humans are an integral part of nature and that we rely on the ecological services to exist. This refers to teaching students with relevant examples from the natural world, this can be done by continuing to use traditional teaching modules, but instigating examples from the real world (Burian', 2017; Byrne, 2012) to change the context of learning to a focus on sustainability. As well as this, the process of education can be changed to highlight a more inquiry based and active learning using real world problem solving. Following this, it is important that the Higher Education institutions themselves practice a sustainable existence in all aspects of their running, from facility design, through to the curriculum. Finally, it is the responsibility of Higher Education facilities to partner with their local and regional communities to promote environmentally sustainable, socially vibrant and economically secure living (Cortese, 2003).

The research used in this study aimed to not only change the context that the learning was taking place in; but to change the process that was used, within the classroom, to highlight a real-world problem which allow students to use real world problem solving.

This was done using an interdisciplinary learning process, we introduced the unit in semester 2 of 2016, with a shared learning experience between Individual, Social and Applied Psychology (Psych 108), Introduction to Green Chemistry (Chem 260) and Contemporary Green Chemistry (Chem 360). Due to the success of the unit it has expanded to include pairings between Psych 108 and Environmental Sociology (Sociol 229, taught by Manuel Vallee) and Chem 360 and Engaging in a Knowledge Society (SciGen 301, taught by Marie McEntee). It has now been taught for four semesters.

The purpose of using interdisciplinary teaching is because there are purported to be various goals of interdisciplinary teaching. To improve and inspire team work, interdisciplinary teaching can generate an atmosphere of mutual respect for the other disciplines. Next, whilst it may not lead to mastering the various subjects, it can foster understanding of the other disciplines. Furthermore, by communicating with other disciplines in an educational setting, it has the potential to increase understanding, which can also lead to the decrease in animosity between the different professions. As well as this, by communicating with other disciplines one is likely to learn a different language. Finally, by interacting with other disciplines, one will learn about their rules, their beliefs and their ethical principles, thus broadening their horizons (Weinberg, & Harding, 2004). Therefore, in using an interdisciplinary teaching technique it was expected that the promotion of ethical and sustainable behaviours would be more ingrained and thorough, leading to a more transformational learning experience.

The context that students were given to learn in was that of the fast fashion industry. Fast fashion refers to the area in the fashion industry which aims at creating quick faux copies of luxury brands in bulk for a fraction of the price (Joy, et al., 2012). These items are not made to last, in some instances they are reportedly made to only last ten washes, with a 3 week turn around in stores with the average going-out top being worn 1.7 times before being discarded (Karaosman, 2016). Fast Fashion, by its very nature, is unsustainable. It requires a fast response system which has such a high turn around that it actively encourages disposability. Companies which rely on fast fashion need these fast cycles to keep consumers coming back, by regularly and consistently creating and sourcing new trends to ensure that their stock is being constantly replaced (Joy et al, 2012). By continuously introducing new products and new ranges in their stores, many fashion retailers attract media attention which has resulted in consumers being primed to hunt out new styles and fashion trends every 3 weeks (Barnes, Greenwood, 2006).



Over a three week period students continued with their normal coursework, however the context was changed to revolve around the fast fashion industry. This teaching unit on the clothing industry was made up of 4 primary sections. First, the students watched The True Cost Documentary, a film which begins to explore how fashion and the clothing industry is impacting people and the environment (Ross, M., Morgan, A., 2015). They then had lectures and labs on phenomena within their specific discipline and how this contributed to the environmental and ethical issues in the clothing industry; for example, Psychology students learn about materialistic values and how these promote the purchase of fast fashion; Chemistry students learn about the energy, water and pesticide requirements of cotton; and Sociology students learn about how Marx's, Weber's and Durkheim's theories can be applied to this issue. They also had a written assignment; in psychology it was done on one of the survey questions, whereas in sociology it was done on the origins of an item of their clothing, using readings and lectures. Finally, they took part in a student presentation on their discipline.

The teaching unit managed to successfully manipulate and significantly increase levels of knowledge of the environmental impact of growing cotton, knowledge of the environmental impacts of manufacturing clothing, and knowledge of conditions of clothing workers. As well as this, it managed to significantly increase the likelihood that participants would consider the environmental issues and the ethical issues before making a clothing purchase. By doing this, it is purported that the teaching unit has begun to alter the subjective norms of this group of participants, and therefore is beginning to make a positive change within the communities the participants belong to. The power in interdisciplinary teaching can therefore be purported to have successfully used transformative learning to promote sustainable behaviours in individuals.

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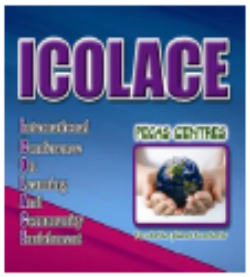

ICOLACE 5, 2018

International Conference On Learning And Community Enrichment

Organised by International Association For Lifewide Learning (IAFLL), Incorporated in Australia on 2 June 2015.
(Certificate of Incorporation Number IA11718 from Department of Justice, Tasmania.)
Head Office: 7 Frederick Street, Hobart 7000, Tasmania, Australia
Website: www.iafll.org. Email: admin@iafll.org Phone: (+61) 407090002
9 9861 6076.

Conference background:
ICOLACE 5 is the fifth International Conference On Learning And Community Enrichment. It is a follow up to the four previous ICOLACE events held in Singapore in 2016, 2014, 2012 and 2010. At these conferences, educators from various countries and continents meet to share research, experiences and ideas regarding student lifewide learning and Education for Sustainable Development. The proceedings from previous ICOLACE events may be viewed at http://www.iafll.org/

2018 Conference theme: "Frameworks that nurture students to self-manage their lifewide personal development."

When: Registration Thurs 25 Oct 2018. Conference from Fri. 26 October to Sun. 28 October (program below).

Conference location:
The conference will be held at the Hotel Rappen (www.hotel-rappen-rothenburg.com) in the beautiful medieval walled town of Rothenburg ob der Tauber, Germany (approximately 3 hours by train from Munich). For more information about Rothenburg ob der Tauber, visit https://en.wikipedia.org/wiki/Rothenburg_ob_der_Tauber

Conference website: http://www.iafll.org. Conference notice available at http://www.iafll.org/icolace5-notice/

Call for papers:
Preference will be given to abstracts (around 250 words) submitted before 31 July 2018 to admin@iafll.org Notification regarding acceptance will be communicated within 15 days of abstract receipt. Conference presentations (PowerPoint) are required by 30 September 2018. Final papers are not required until 31 December 2018 to allow for additions after conference. Format requirements regarding presentations and papers will be notified to presenters at the time of acceptance. **The proceedings from the conference will be published online, ISBN 978-0-9872206-4-6.**

Registration:
Registration is Euro350 (approx. US$430) due on 25 September 2018. (Discount of Euro150 if paid by 30 June 2018; Euro100 if paid by 31 July 2018, or Euro50 if paid by 31 August 2018.) Fulltime student registration Euro150. Consideration will be given towards a concessional rate for participants from developing countries upon application before 31 August 2018. Single day registration available for German residents of Euro75 per day.

Contact for registration: Online registration is available via http://www.iafll.org/icolace-5-registration/. For further information email ICOLACE Conference Chairperson, Chris Picone via chris.picone@iafll.org

Conference program:

25 Oct, Thurs:	6pm-7pm	Registration.
26 Oct, Fri:	9am-3pm	Optional visit to local German school to discuss methods used by teachers to encourage lifewide learning and Education for Sustainable Development.
27 Oct, Sat:	8am	Late Registration
	9am	Official opening of conference
	10am	Presentations regarding existing frameworks that encourage, support and recognize student self-management of their lifewide personal development
	12 noon	Light refreshments provided
	1.00pm-4pm	Workshops to discuss afternoon sessions and share ideas/experiences.
28 Oct, Sun:	9am	Presentations relating to unmet needs and proposed programs to nurture students towards self-management of their lifewide personal development
	12 noon	Light lunch provided for networking
	1pm-3pm	Workshops to discuss morning sessions and share ideas/experiences
	3pm	Close of conference.

Accommodation:
Special bed and breakfast package rates of Euro89 single and Euro124 double are available at the Hotel Rappen for conference participants. For further information contact Marion Dänzer, Rooms Division Manager via marion.daenzer@hotel-rappen-rothenburg.com, telephone +49 9861 9571 or fax: +4

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