On the Road IV.2
Collaborative curriculum innovation as a key to sprouting transformative higher education for sustainability

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THE 'END' OF PUBLIC EDUCATION

Around the world we are witnessing a shift in public education in general and higher education in particular. This shift is, at least in part, the result of hegemonic neo-liberalistic thought, which not only dominates the world of commerce but has, during the past two decades or so, forcefully entered the world of the public good (for example education, healthcare, pensions, elderly care, nature conservation, environmental protection). Privatization, commercialization, and a strong belief in the power of market mechanisms and competition are some characteristics of this type of thinking. Many economists, and indeed politicians and legislators, believe these features of neo-liberalism to be essential drivers of innovation and improved efficiency. Without the latter, they suggest, companies and (formerly) public institutions simply cannot survive in a rapidly globalizing economy. In order for countries (that is, their economies) to remain viable and vital, the 'workforce' needs to be flexible and adaptable, making lifelong learning a necessity, as jobs can change or disappear overnight. At the same time, 'consumers' need not be afraid to spend, even if such spending requires taking out loans or absorbing debt, and their expenditure is fuelled by instant exposure to products (preferably ones that break down quickly or become out of fashion or outdated within a few months or a year at the most).

This shift, which we deliberately caricature, has several implications for the public education system. First, the end of public education is more and more framed in terms of preparing students for work, often under the disguise of 'lifelong learning'. The Lisbon Declaration illustrates this, as it makes a plea for higher education institutes to respond to the emerging 'knowledge economy' by stimulating lifelong learning and linking formal education to work-based learning (European University Association, 2007). One could argue that the original purpose of public education was to prepare students for life rather than for work; after all the term 'education' comes from the Latin word *educare*, which means 'to lead into' life. Just like the role of citizens is today framed narrowly as one of consumer, the role of education is narrowly framed as serving the economy or, put differently, singly serving the P for Profit in the triple bottom line of People, Planet, Profit.

Second, the world of business has entered the world of public education, sometimes in subtle ways. Neo-liberalistic thinking has led to a rise of so-called 'marketed solutions' to educational problems, bolstering corporate agenda under the guise of disinterested scientific knowledge, benevolent technology and innocent entertainment (Goodman and Saltman, 2002). 'While your local high school hasn't yet been bought out by McDonald's, many educators already use teaching aids and packets of materials, "donated" by companies, that are crammed with industry propaganda designed to instil product awareness among young consumers' (Ross 2000, p. 12, cited in Jickling and Wals, 2008).

We are also witnessing an exponential growth of private education both in Western and, increasingly, in non-Western contexts. Private schools and universities are popping up everywhere, creating pockets of excellence for those who can afford it and who consider public education inadequate or mediocre at best. A common response by ministries of education has been to reward public schools that do well and to punish those who do not, mandating some kind of national testing scheme. These kinds of management tools have in some cases led to improvement of public schools, but they can also be criticized for homogenizing the educational landscape (Goodman and Saltman, 2002) and creating a 'culture of accountability' rather than a 'culture of learning'. Oftentimes teachers find themselves 'teaching to the test', at the expense of investing in learning domains that are not captured by standardized tests. Schools now pride themselves on how they rank in terms of their average test performance, and universities compete worldwide to score as high as possible on rankings like the Academic Rankings of World Universities (ARWU) and the *Times Higher Ed*. As a result they singly focus on the criteria used by these rankings (for example number of Nobel Prize winners, number of citations, number of journal articles in ISI-journals, percentage of international students and staff, and so on).

These consequences of the wave of neo-liberalism rolling over the public education landscape have major implications for teaching and learning, and dramatically limit the potential of education to respond to the major challenge of our time, which is not to sustain continuous economic growth but to sustain life, including human life, on this planet. In this paper, we argue that in order to reinvigorate (public) education with a heartfelt commitment to learning for change, we need to create social learning networks in educational institutions that involve both teachers and students and that work towards educational change from the personal to the institutional level. We will first consider theoretical insights on integrating sustainability into the higher education curriculum, and then move on to report on an initiative we have been involved with at Wageningen University, which has developed a framework for transformative sustainability education that is currently being translated to the design of a BSc minor programme. Going beyond describing the outcomes of this working group, we also adopt a process-oriented perspective to conceptualize the initiative as a social learning network, and to draw lessons from reflecting on our joint endeavours.

SUSTAINABILITY AND HIGHER EDUCATION

At the beginning of the 21st century, humanity is facing a range of momentous challenges. The doom and gloom of climate catastrophes, shortage of resources, economic exploitation, financial instability, poverty, religious and civil wars, and so on calls for people who are able to deal with pressing issues in which both stakes and uncertainty are high (Funtowicz and Ravetz, 2003).

Education that prepares for work carries instrumental connotation; we might say that it breeds compliance, fostering the learner's ability to fit into the system, unquestioningly. The very institutions of education can turn inquisitive, curious, creative children

into result-driven, unimaginative, extrinsically motivated adolescents who see higher education as nothing but a means to receiving the necessary documentation to be granted access to the 'professional' world. On the contrary, by promoting an emancipatory approach to education for life, we echo Haigh's call for (higher) education that promotes planetary citizenship (2008); a form of democratic participation characterized by a heartfelt responsibility to 'act as though the future mattered' (Devall, 1988).

This call is also reflected in policy initiatives like the UN Decade of Education for Sustainable Development, for which UNESCO has been designated the lead agency in promotion and implementation and which encourages the development of curriculum that enhances value-based learning and critical thinking and fosters changes in thinking patterns and behaviours (UNESCO-DESD, 2009). Essentially then, sustainability education needs to depart from an emancipatory standpoint that intends to trigger a transformation in which learners integrate new information, perspectives and practices into their own worldview, and thereby cause shifts in deeply rooted frames of reference (King, 2004). Moreover, as sustainable development is increasingly seen as an emerging property of collaborative learning, the creation of a more sustainable world above all requires learning that leads to co-created, creative solutions, co-owned by more reflexive citizens, living in a more reflexive and resilient society.

Learning for change therefore means to engage in discourse and activities that challenge students on cognitive, attitudinal, emotional, interactive, and practical levels in a context of multiple perspectives and practices. While this might result in confrontation between perspectives and worldviews, discipline-based outlooks and academic cultures (Godemann, 2008), as well as between different types of knowledge (Lawrence and Després, 2004), educators should not impose values or pressure for consensus among learners from different backgrounds (cf. Osberg and Biesta, 2008). Indeed, a focus on consensus would disrespect the diversity of learners and contexts. Instead, contested perceptions need to be exposed and studied to promote

understanding of how differences in views and practices can be utilized for constructive interaction and promising pathways to solutions.

Over the past decades, several forms of education have emerged that foster capacities and qualities necessary for individuals, groups and communities to start walking the talk of sustainability (that is, to match words with action). Transdisciplinary learning, transformative learning, anticipatory learning, and collaborative learning – just to name a few – all show a high family resemblance in that they:

- Consider learning as more than merely knowledge-based
- Focus on existentially relevant or 'real' issues essential for engaging learners
- Maintain as crucial the quality of interaction with others, and of the environment in which learning takes place
- View learning as inevitably transdisciplinary and even 'transperspectival' in that it cannot be captured by a single discipline or by any single perspective
- Regard indeterminacy as a central feature of the learning process, in that it cannot be known ahead of time exactly what will be learnt, and that learning goals are likely to shift as learning progresses
- Consider learning as cross-boundary in nature, in that it cannot be confined to the dominant structures and spaces that have shaped education for centuries

This list shows that learning in the context of sustainability requires 'hybridity' and synergy between multiple actors in society, and the blurring of formal, non-formal and informal education. In other words, learning for change needs to bring together a wide range of societal actors with different interests, perspectives and values but with similar challenges, so that they can participate in processes of social learning.

Social learning in the context of sustainable development builds upon several of its predecessors, like action research and community problem-solving (Wals et al., 1990; Wals, 1994), grassroots learning, collaborative learning, and experiential learning, but it sees the cultivation and utilization of pluralism as essential for the emergence of transformative disruptions. Educational psychologists for long have

argued and shown that learning requires some form of (internal) dissonance (Berlyne, 1965; Festinger, 1957; Piaget, 1964), and exposure to alternative ways of seeing, framing and interpreting can be a powerful way of creating such 'conflict'. Admittedly, excessive dissonance may trigger a defensive response of holding even more tightly to established perspectives. However, dissonance can, when introduced carefully and dealt with in a proactive and reflective manner, lead to what Martin Scheffer calls a tipping point (2009) in one's thinking, in which learners reconsider their views and adopt or co-create new ways of looking at a particular issue. Such tipping points appear necessary in order to generate new thinking that can unfreeze minds, and break with existing routines and systems – a key assumption being that pluralism and heterogeneity offer more promise in finding creative solutions to the stubborn issues of our times, than 'singularism' and homogeneity (see also Page, 2007).

A process that seems central to making sense of pluralism and dissonance is that of *Gestaltswitching* (Wals and Blewitt, 2010). *Gestalswitching* is derived from the German concept of *Gestalt* or 'mindset' and the related *Gestaltungskompetenz* which some use to articulate the kinds of qualities, competences and attributes learners need to develop when engaging in sustainability issues (Barth et al., 2007). Gestaltswitching then refers to the switching back and forth between different mindsets. In the context of sustainability there is a multitude of 'Gestalts' in play, four of which are identified in Figure 1: the temporal Gestalt (past, present, future and intergenerational mindsets), the disciplinary Gestalt (a range of social science and natural science mindsets), the spatial Gestalt (local, regional, global and beyond global mindsets) and the cultural Gestalt (multiple cultural mindsets whereby culture is broadly understood).

It can be argued that a 'trans-human' Gestalt still needs to be added, which suggests we also need to be able to imagine the world from the perspective of the more than human world, allowing ecocentric and biocentric mindsets to enter our thinking and acting. Transformative social learning towards sustainability hence needs to cultivate the competence of switching back and forth
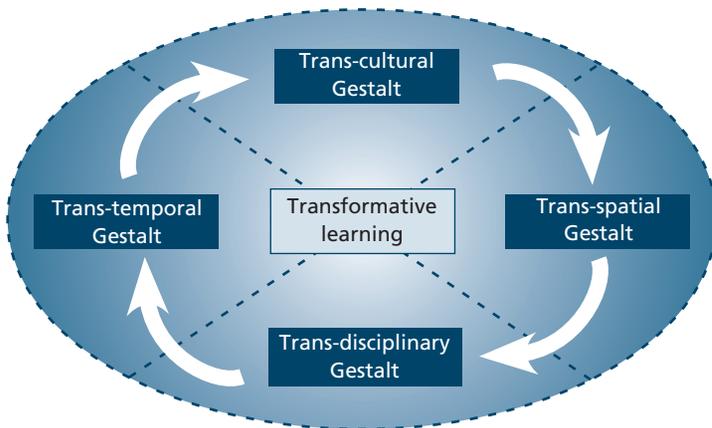
FIGURE 1 **Four key Gestalts at play for transformative learning towards sustainability**

between various Gestalts, mindsets or lenses, and integrating them in responses to sustainability challenges.

This switching and 'mirroring' or 'relating to' different perspectives requires empathy, or a willingness to open up to and sympathize with 'otherness', as well as the ability to cope with uncertainty. This is a major challenge for higher education, as many scientists consider minimizing uncertainty and maximizing predictability one of their key quests. Instead, in the context of sustainability, it might be more fruitful to put our energy towards *living with* uncertainty, and developing a 'precautionary reflexivity' that can steer us clear of the inaction, paralysis and apathy that come with the prevailing 'wait and see' attitude, which suggests that as long as there is disagreement among scientists and policymakers about what is happening to the planet, we have no reason to break with business as usual. In their edited volume on education and climate change, Kagawa and Selby write: 'As a fundamental contribution to climate change [prevention and adaptation], it seems that educational spaces should build a culture of learning awash with uncertainty and in which uncertainty provokes transformative yet precautionary commitment rather than paralysis' (Kagawa and Selby, 2010, p. 243).

How then can we create emancipatory learning environments that promote these competences of Gestaltswitching, and proactive engagement with dissonance, pluralism and

uncertainty? In our work with the Initiative for Transformative Sustainability Education (ITSE) at Wageningen University we try to actively engage with this question. Please refer to On the Road IV.10, where you find a concise description of ITSE's efforts to create a transformative educational programme in sustainability.

SOCIAL LEARNING FOR EDUCATORS

Here, however, we would like to draw your attention to the central role of educators in facilitating learning for change. Oftentimes they have themselves experienced many years of receiving and distributing passive and outcome-oriented education; so in order to design and facilitate emancipatory processes of learning, educators need first to transcend the prevailing instrumental education practices.

After some time of being engaged in ITSE, it dawned on us that we were actually engaged in a process of social learning that was transforming our take on education. Let us illustrate this by comparing the process of establishing and collaborating in our working group with what Harold Glasser (2007) defines as the key characteristics of social learning:

- the value of difference and diversity in energizing people, introducing dissonance and unleashing creativity
- the importance of both reflection (becoming aware of how one experiences something and being able to articulate this) and reflexivity (gaining awareness of how

actions are embedded in certain values, structures, and patterns)
- the power of social cohesion and social capital in creating change in complex situations loaded with uncertainty
- the power of collaborative action that strengthens the (unique) qualities of each individual

The ITSE initiative was brought into life when an inspired MSc student invited teachers and students to a talk about how education could contribute more 'holistically' to fostering sustainability. The people who gathered represented several of the university's departments and study programmes, including environmental sciences (biology, alternative energy), life sciences (animal and plant sciences, health sciences), social sciences (environmental education, communication, organizational psychology), applied philosophy, and interdisciplinary subjects (sustainable development, international development, human geography).

Initially, this diversity across boundaries of discipline, experience and age caused a considerable amount of misunderstanding and confusion – for instance regarding what sustainability actually is, and what students need to learn to contribute to it. However, through reflexive and open engagement with each other, we were able to suspend our initial feelings of dissonance, learn from each other's perspectives, and create a shared vision on what we came to call 'transformative sustainability education'. Admittedly, the group has since reduced in size somewhat, which might have been partly due to an inability or unwillingness of some to challenge existing assumptions and attitudes. Nevertheless, once we had gained a meta-level understanding of our perspectives, we were able to jointly shape the framework presented here, and then translate it into programme design through a number of workshops in which we defined elements, principles, and tools for transformative sustainability education. Of course this was not always a smooth process, and we experienced a whole range of challenges throughout, for instance when negotiating university course development restrictions. However, facing challenges together also led to growing cohesion and a more amicable atmosphere in our working group, which slowly turned into a

community of learners, as we developed ways to draw upon and learn from each other's diverse skills and expertise.

LESSONS LEARNED

While writing this paper, we reflected upon the process of establishing ITSE and collaboratively innovating sustainability curriculum. We would like to share some key lessons that emerged from these reflections, and which might serve to support other initiatives for learning for change.

START WALKING THE TALK

Working together has made us realize that to promote learning for change we need to start in our home institutions. It is interesting that as scholars, what we publish and present internationally on prestigious platforms is rewarded, not the work we do locally, in our own institutions. The increasing neo-liberalization and commodification of academia and higher education creates major barriers to participating in local committees, think-groups, and initiatives to improve our own teaching and learning environment. However, if we want to truly start walking our talk, we need to develop strategies that allow us to make contributions where we can have a sustained impact.

BUILD A SOCIAL LEARNING NETWORK

For some of us, the experience of joining ITSE felt like 'coming home'. We believe that there is a growing body of concerned and dedicated students and faculty who feel that higher education has to break with existing routine practices of teaching, learning and research that tend to lack an integrated perspective. Admittedly, in our group there are differences with respect to the amount of uncertainty we can handle, regarding the belief in science and technology, with respect to the value of intuition and spirituality in moving towards a more sustainable world, and concerning what we see as 'sustainable' and 'transdisciplinary'. But these differences are mostly generative: they sharpen our thinking, they make us become aware of our own assumptions and they heighten our awareness of other ways of 'seeing' and 'being'.

It follows that we need to (re)conceptualize ourselves as learners as well as educators.

Challenging ourselves to develop a constructive meta-awareness of our different perspectives and approaches required becoming more reflexive about our own teaching practices and routines, and co-creating new ways of approaching education. Support structures for academics to become better educators are far from abundant. However, we can use the power of our own agency to create the support we need: it might start with getting a group of likeminded people together for a chat.

INVOLVE STUDENTS

Students are one essential 'resource' for making initiatives in higher education work. Without students driving the effort and playing a key role in maintaining momentum, ITSE would have experienced an early death. Of equal importance are the enriching insights students can provide for linking educational design to learner experience, a topic that is easily overlooked from the 'front stage' perspective of teachers. The students involved in ITSE have become leaders in developing sustainability competence at their institution, and it is in student empowerment that universities can have an impact far beyond publications in high impact factor journals.

DREAM BIG AND STAY WITH THE PROCESS

One challenge for ITSE has been to shift gears between scopes of vision. Our initial 'big dream' was to make sustainability and transformative learning the grounding principles of all educational programmes at our university. Obviously, we needed to break this vision down into achievable steps, of which the framework is the first, and the minor the second. In such stepwise implementation, it is however important to keep the 'big dream' alive, and reflect regularly whether current actions are still working towards the larger vision. It is important to stay with the process, especially when challenges appear. In ITSE, while striving to adopt more integrative ways of thinking and acting, we need to continuously remain aware of our habitual tendency to revert back to 'mono-disciplinary' perspectives. We need to accept that roadblocks are part of the journey, and, rather than despair, approach them with reflexive enthusiasm.

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