

Chapter 7

‘EYE for sustainability’: a learning tool for change agents

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Empowering and equipping learners to become critically and creatively engaged in creating a sustainable future is a main goal of sustainability-based education programmes (UNESCO 2012). Although the rhetoric of participation, agency, and empowerment is quite strong in the education for sustainable development policy arena, little has been done to engage learners. This chapter attempts to address this issue by introducing the EYE (Educating Yourself in Empowerment) for Sustainability learning tool, a heuristic aspiring to empower and to equip learners as change agents. Conceptually, this tool was inspired by established concepts within the fields of transformative learning, emancipatory education, and empowerment. In practise, the tool was developed using classroom experience gained while attempting to awaken personal engagement for sustainability in learners, in the context of higher education.

This chapter describes the background and key features of the EYE for Sustainability learning tool. The following section one introduces notions from the fields of transformative learning, emancipatory education, and empowerment upon which the EYE tool is based. Section two describes the tool and its phases. Section three presents examples of the application of the tool. Section four ends the chapter by providing concluding remarks.

Conceptual background of the EYE for Sustainability learning tool

In his seminal work on transformative learning, Mezirow (1978) urged educators to recognise a cardinal dimension of learning in adulthood that enables us to identify and transform the assumptions and underlying beliefs that frame our tacit points of view and influence our thinking, attitudes, and actions. Through transformative learning we learn to see things in a new way. Transformative learning supports both critical awareness and a shift in the assumptions and beliefs through which we interpret the world, others, and ourselves, thereby determining our way of being and our course of action. Here, we consider that our current sustainability-related challenges require a reflexive self-consciousness, new perspectives that are both critical and creative, and new ways of seeing, being, and doing. Successfully transforming unsustainable practises into sustainable practises requires the development and transformation of individuals and society as a whole.

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From an emancipatory perspective, in the context of sustainability, education is an avenue for developing understanding, meaning, potential, and capabilities, all of which enable learners to help create a sustainable world and to become self-actualised members of society (Wals and Jickling 2002). The focus of emancipatory education is to encourage learners to reflect – both critically and creatively – upon current sustainability-related issues, knowledge, and perspectives. Emancipatory education also aims to empower and equip learners to act on issues that they define as important. On the other hand, instrumental approaches focus on transferring expert knowledge and on establishing standards and relatively fixed, prefabricated solutions with the goal of changing the learners' behaviour in a specific direction in the context of sustainability (Wals and Jickling 2002). Here, we assume that the quest for sustainability requires both emancipatory and instrumental approaches. As learners jointly investigate the sustainability challenges that they themselves have identified, deliberated, and framed (as is typical in emancipatory education), certain knowledge gaps will inevitably emerge, and these gaps can be addressed by transferring expert knowledge in a 'straightforward', linear manner (as is typical in instrumental education).

The notion of empowerment is relevant here as well. Empowerment is a notion that can have several meanings, applications, and levels of analysis. Here, empowerment is approached primarily as a process that provides learners with power that can be used in their lives, their communities, and society by acting upon issues that they define as important. It is applied at the intersection between the classroom and society, and it relates to learners' empowerment for sustainability. It is tackled within a personal or individual level of analysis that is often referred to as 'psychological empowerment' (Zimmerman 1995). Focusing on empowerment at the individual level should not be interpreted as an emphasis on individualism. Research has determined that individual empowerment and individual change are key components in community and social change (e.g. Speer and Hughey 1995, Zimmerman 1995). Empowerment – particularly psychological empowerment – is understood and explored here in terms of its fundamental components, including intrapersonal, interactional, and behavioural components (Zimmerman 1995). Firstly, the process of empowerment includes the motivation and the belief that one wants and can influence a given context, and that a certain outcome can be achieved (the intrapersonal component). Secondly, empowerment includes the critical understanding of socio-political, environmental, and institutional contextual and structural factors, as well as awareness regarding resources – including one's own competences – that can either hamper or enhance one's efforts to achieve a certain outcome (the interactional component). Thirdly, empowerment includes specific behaviours and actions that are taken in order to directly influence outcomes (the behavioural component).

Empowerment is also closely connected to agency as a form of leadership. As argued by Ferdig (2010), anyone who takes responsibility for understanding and acting upon sustainability challenges can be considered a sustainability leader. Leadership is therefore an emergent property of the simultaneous cultivation of agency and empowerment – a change agent (for sustainability) is considered a leader (for sustainability), and fostering empowerment and agency translates into fostering personal leadership.

The EYE for Sustainability learning tool

The learning tool can be depicted schematically as a pair of eyeglasses that many of us use daily to enhance our own vision and to function accurately in the world (Figure 1). The name of the learning tool – EYE (Educating Yourself in Empowerment) for Sustainability – reflects the resemblance of the tool to a pair of eyeglasses: the EYE aims to support the vision and function of learners in the context of sustainability. Additionally, the name also highlights, albeit metaphorically, the tool's transformative orientation: the tool helps the learner develop an eye for sustainability, by fostering the capacity to visualise new possibilities for avenues that contribute to achieving a sustainable future.

This learning tool is the result of two on-going developmental processes: one grounded in theory and one grounded in practise. First, the learning tool draws from the theories underlying transformative learning, emancipatory approaches in the field of sustainability-related education, and the notions of empowerment (as discussed in the previous section). Second, the learning tool draws from the practical experience we gained by applying and experimenting with the EYE in the classroom while teaching several courses, at Wageningen University, focused on engaging and equipping change agents for sustainability.

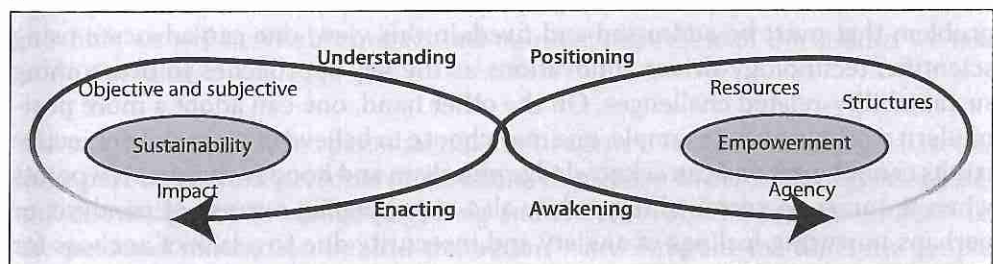


Figure 1. The EYE for Sustainability learning tool.

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In the following parts of this section, we will briefly describe the key elements of the EYE learning tool, a dynamic instrument that is characterised by four interrelated, on-going phases (see also Figure 1).

Understanding

In this phase, the learners' conceptual knowledge and critical awareness of sustainability concerns and notions are fostered and deepened. Sustainability is explored both objectively and subjectively. From an *objective* standpoint, the learner is exposed to globally and locally related facts, statistics, and expert knowledge regarding sustainability issues. Based in part on the learner's own personal and academic background and interests, he/she is encouraged to enhance his/her technical understanding of sustainability-related concerns; examples can include developing his/her own knowledge of ecosystem functioning, the impact of human-induced activities, resource availability and distribution, and existing social and health concerns (and how these concerns are currently addressed).

At the same time, the concept of sustainability must be further explored and given contextual meaning. Inevitably, the learner will be exposed to the range of definitions and ways to operationalise sustainability (e.g. White 2013). Therefore, this phase includes a *subjective* component as well. Specifically, the sustainability challenge is related to individual and societal worldviews, as highlighted by recent studies that attempted to map these different worldviews (e.g. De Vries and Petersen 2009, Van Egmond and De Vries 2011). Those worldviews include one's own value orientations, mental maps, and beliefs; in this respect, these worldviews can be seen as the paradigms or lenses through which we interpret and approach the world, others, and ourselves. Indeed, these lenses, biases, preferences, etc. likely colour the facts and figures that we described above as 'objective'. For example, drawing on the work of Van Egmond and De Vries (2011), one can adopt a modern worldview by considering the sustainability problem to be a technical problem that must be addressed and fixed; in this view, one can advocate using scientific, technology-driven innovations as the key approaches to overcoming sustainability-related challenges. On the other hand, one can adopt a more post-modern worldview; for example, one may choose to believe that absolute objective truths cannot exist and can acknowledge pluralism and honour various viewpoints when it comes to sustainability, while also experiencing a sense of paralysis or perhaps nurturing feelings of anxiety and insecurity due to a lack of anchors for meanings and a lack of certainties. Other worldviews, including idealistic and/or optimistic ones, can be present as well. For example, drawing on the recent work of Ateljevic (2013), one can adopt a trans-modern worldview by considering that all of us – including animals and plants – are interrelated, and that wisdom and intuitive thinking must be included in order to create a better future; this view

draws upon the power of the caring actions of individuals and citizens in order to achieve a sustainable future. The goal of exposing learners to various worldviews is not to put people in a box. Rather, it is a didactic attempt to make learners aware of the role that worldviews can play in the sustainability debate – and the subsequent actions – and to critically engage learners in reflecting on their own values, orientation, and beliefs, as well as calling upon their sense of responsibility as human beings and world citizens.

Awakening

This phase focuses on awakening a sense of *personal agency* and addresses the intrapersonal component of psychological empowerment. Awakening personal agency is both a process designed to enhance one's capability to act with respect to sustainability and a process towards achieving self-actualisation.

The word 'agency' is derived from the Medieval Latin word *agentia* and from the word *agent* that means 'doing' (Oxford Dictionary³⁶). Human agency means having the capability to *do* or to *act*. Agency is not just about acting and producing effects through those actions; agency also means realising and exercising the power within each individual to influence the course of events. According to Bandura (2006), the most crucial mechanism at the core of human agency is the ability to believe in *self-efficacy*; our capacity to act is rooted in the core belief that one has the power to effect change through one's actions. People of low self-efficacy can be easily convinced of the futility of their efforts, and they have little incentive to act and persevere in the face of adversity. So, – within the context of complex, ill-defined sustainability concerns – we can consider that most people with high self-efficacy approach the challenge of contributing to sustainability with a sense of commitment and will not give up easily despite the complexity and/or difficulty of the challenge. Learners are encouraged to reflect upon these aspects related to agency and self-efficacy, and to realise that we live in an interconnected system in which we will inevitably impact one another, regardless of the actions we take or do not take.

The word *personal* adds a personal nuance to agency. People's actions are based in large part upon their personal motivation. The *reason to act* both triggers agency and allows agency to unfold (e.g. Ling and Dale 2013). The reasons to act – i.e. the personal motivation behind the action – are different for different people, also within the context of sustainability. For example, people can be motivated by environmental concerns, social concerns, a perceived sense of civic engagement, the intrinsic rewards associated with being an agent and acting, and so on.

³⁶ Oxford Dictionary, consulted on 13-10-2013. Available on line at: www.oxforddictionaries.com/.

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Moreover, each person may choose to apply their own personal qualities to their actions, and each person may act from a particular worldview and care about different things. It cannot be denied that people have an innate desire and tendency to 'become', i.e. to express and achieve one's true potential (Maslow 1943). Here, we view the process of connecting an individual with who he/she is and with his/her potential – and using this as a starting point for learning, experimenting, transforming, and contributing to create a sustainable world – as a process in the direction of self-actualisation.

Hence, *personal agency* can be understood as the 'spark' that stimulates people to act in the interest of something and/or someone they care for in their life/lifestyle, in their family, in their community, in their environment, and in society.

Positioning

This phase encourages learners to position themselves with respect to what they learned in the context of empowerment for sustainability. Positioning occurs in part through enquiry and largely through dialogue; indeed, dialogue is a key feature of transformative learning (Mezirow and Taylor 2009). In this phase, the learner is invited to engage in a process of *enquiry*, to personalise, and to give meaning to the knowledge and insights that were acquired during the learning process (which can include a literature study and knowledge conveyed by an expert). Especially, the learner is invited to share these findings through *dialogue-based interaction*. This phase specifically addresses the interactional component of psychological empowerment. The learner is also invited to position him/herself with respect to contextual *structures* and to *resources* including his/her own competences, thereby hindering or enhancing his/her capacity to engage and strive towards achieving sustainability. Learners are encouraged to strengthen the specific competences that they find particularly important to their own development.

In practise, positioning can include expressing one's own vision regarding how to approach a sustainability concern. It can also include sharing insights into one's own value orientations and beliefs. Moreover, positioning can include sharing one's own awareness of the structural factors and resources that either support or hamper one's engagement with respect to sustainability. However, positioning can also include communicating one's own scepticism with respect to sustainability discourses, expressing a lack of clarity regarding one's own empowerment process, and/or sharing one's difficulty dealing with challenging contextual factors. By reflecting upon these aspects, by expressing what he/she thinks and experiences at a given point in time as a result of the learning process, and by engaging in dialogic interaction with others, the learner can become part of a highly productive and rewarding process. The learner can learn from others, reconsider his/her own

knowledge and insights, and/or challenge what he/she hears. In turn, the learner may reflect further and adopt new ways of viewing certain issues, thereby gaining even more clarity regarding his/her current thoughts; together, these steps can yield interesting discoveries and can serve as a transformative process. Positioning is a dynamic process, evolving and changing over time through the education process and through dialogue-based interaction both inside and outside the classroom.

Enacting

In this phase, learners are engaged in *real-life actions* through which they can contribute to sustainability in a manner that fits their own vision, capabilities, and inspiration. Enacting also includes reflecting upon the *impact* of one's own actions and behaviours. In this way, enacting addresses the behavioural component of psychological empowerment.

As argued by Freire (2000), we human beings are – in essence – beings of praxis. Thus, we are able to both reflect and act, and in doing so, we can create, impact upon, and transform our reality and the world in which we live. In this phase, individual learners create, design, and execute a real-life project of their own choosing in order to address a particular sustainability concern or enhance a state of play within their own sphere of influence (e.g. their own community, university, family, lifestyle, etc.). Through individual enacting, each learner is given the freedom to operationalise his/her own position, including his/her own visions, potential, and competences; thus, the learner develops a sense of ownership regarding his/her own actions, learns to deal with challenges, and gets to know him/herself better as an agent of change in the context of sustainability. The individual action project is not meant to encourage the learner in a solitary effort. In contrast, the project should begin with dialogue-based interactions between the learner and others; those interactions allow a critical reflection of one's own vision, the possibility to share one's own work and inspire others, and to draw practical support for one's own initiative. Additionally, a project implies collaborative work, as the majority of projects require shared resources and collective efforts.

In addition to being a process, enacting has an outcome. Therefore, it is important to reflect upon the *impact* of the actions that are undertaken. For example: one may hope to achieve a certain outcome based on a certain vision, thereby making a specific contribution to sustainability; alternatively, one may believe that he/she possesses certain competences and knows how to deal with the structural context within which one is operating. Reflecting upon the impact of one's own actions can confirm or refute those hopes and thoughts. To the learner, this is learning material, and the learning process continues through iterative engagement in the various phases of the learning tool.

The EYE in action

To illustrate the EYE learning tool in practise, we can draw upon our experience when using the tool in the course 'Empowerment for Sustainability', which we we have developed and teach at Wageningen University. The course, winning a Wageningen University Excellent Education Award in 2014, is structured around the EYE phases and can be seen as an example of the EYE in action within the context of higher education. The aim of the course is to engage learners of sustainability within their own sphere of influence and at the intersection between the classroom and the world. Based on the learners' reports, presentations, and personal assessment of the course, the learning process experienced by the learners can vary widely. Each learner seems to experience a unique journey, starting at his/her own level of knowledge and awareness, then deepening the phases in the learning tool that are most meaningful for his/her own development within the context of sustainability. To show the EYE learning tool in action, we first show some examples of specific action projects that were developed and executed by learners (*enacting phase*) during the course; we then, in Box 1, present a testimonial in order to zoom into one action project and describe one learning process as experienced by a learner during the course.

Examples of the real-life projects that were created and implemented by the learners include: the facilitation of interactive workshops and the development of art projects and games designed to enhance ecological awareness and well-being in schools, boy scouts groups, and communities; the creation and execution of plans to stimulate recycling and the reduction of plastic waste in universities, supermarkets, shops, and students houses; the execution of social entrepreneurial innovation plans; the organisation and delivery of meetings to foster dialogue, intercultural sharing, and social cohesion between neighbours and among various cultural and religious groups; the development and implementation of policies that impact upon food choices and the use of water and energy in schools, gyms, and student associations; coaching activities designed to enhance corporate social responsibility within business organisations; experimenting with changes in one's own lifestyle and consumption patterns; and coaching inhabitants regarding changing their lifestyle and consumption patterns.

Concluding remarks

The EYE for Sustainability learning tool is a heuristic that guides learners to become agents of change in a world in need. In this process, the specific learning conditions and learning methods are crucial. Although reflecting upon these aspects is beyond the focus of this chapter, based upon the experience we gained through our educational activities, we want to mention just a few elements that we

Box 1. Testimonial by Blair van Pelt (MSc student at Wageningen University).

When I first came to Wageningen University, I was both shocked and concerned by the number of single-use disposable plastic cups that were used on a daily basis on our campus. What I particularly appreciated about the Empowerment for Sustainability course was the opportunity to translate my concerns into meaningful actions; this was particularly empowering for me and facilitated my own agency. This transformative process helped me design and implement an action project that focused on fostering awareness regarding the use of single-use plastic cups on our campus, as well as supporting a change in behaviour by providing reusable cups and encouraging their use.

The *understanding* phase helped me delve into the global issue of plastic waste and connect that issue with my observations here on our campus. To increase my knowledge base, I asked the university's facilities department how many cups were used on a daily basis in just one of the main campus buildings (the Forum building). The answer was approximately 2000! From there, I moved to the *awakening phase*, where I realized that rather than just thinking about this problem, I was – and still am – capable of contributing to effect a positive change. Throughout the *positioning phase*, I was able to transform my awareness into a plan for action, and I decided to communicate my concern through art. Despite this rapid transition, I found this phase to be the most challenging. In particular, I was confronted with my own fears of judgement and failure. However, the course provided a safe space for dialogue and a process of self-reflection, and I was able to navigate my way to the *enacting phase*.

In the *enacting phase*, a group of friends and I collected a full day's used cups, washed the cups, and then hung them up in the Forum building. The result was a large-scale, provocative art installation that was displayed for one week to show our daily usage of plastic cups (Figure 2A). During that week, I used art as a tool to inform and inspire change in a fun and interactive way. To facilitate change in the students and staff, we gave away reusable cups as a replacement for single-use plastic cups. The students and staff were also invited to participate by taking a picture with a silly hat made of disposable cups and a sign that read, 'I am part of the solution because I bring my own cup' (Figure 2B). Wageningen University's facilities department and student council liked my idea and financed both the event and the distribution of reusable cups. We distributed a total of 700 reusable cups, supporting a shift in awareness and behaviour, which was confirmed by the high daily usage of reusable cups.

Most importantly, the course helped me make clear connections between my sense of urgency, my questioning and scattered view of sustainability, and my sense of empowerment, thus helping me gain a more holistic view. As a result, things started to fall into place for me. From a conceptual viewpoint, I was able to grasp what agency

is, and how it works. In practise, I found it particularly useful to learn how to position myself, to dare to communicate my vision to others with similar – or different – mind sets, to identify and courageously attempt to access the structures and resources that were needed to carry out my vision, and to persevere despite the challenges encountered along the way.

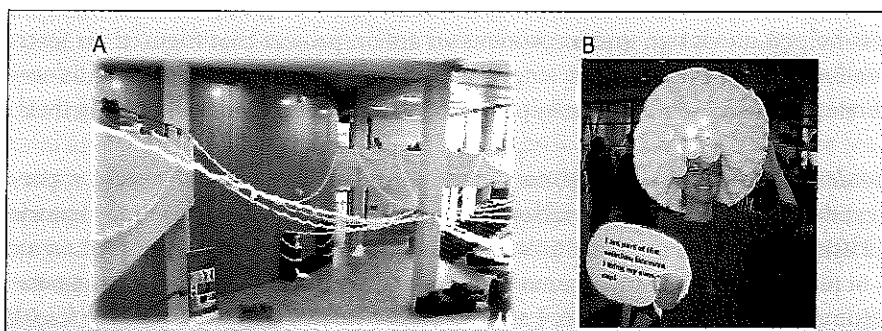


Figure 2. Examples of the enacting phase – an Art & Plastic Waste Project.

found to be particularly important when applying the tool. Developing a climate in the classroom that is safe, trustworthy, reflexive, and dialogic is highly conducive to learning. Moreover, developing a climate of mutual support and a sense of community among learners is essential, particularly given that despite their wide range of views, processes, and projects, learners are all engaged in a common endeavour, namely contributing to creating a sustainable future. The educators – with their own beliefs, values, capabilities, and expertise – play a central role as well. In particular, the educator is a facilitator, supporting the enquiry process and promoting dialogue between the educator and the learners, as well as among the learners. At various times, the educator can also be an expert transferring his/her knowledge to the learners, a coach helping the learners define their motivations and deal with adversity, and more. Our experience suggests that exposing learners to a variety of distinct education styles and to educators with various backgrounds is highly beneficial to the learning process. This same benefit applies to the teaching methods as well, as a variety of methods that embrace several dimensions of learning (e.g. cognitive, affective, interpersonal, etc.) are well-received by the learners.

As a heuristic instrument, the EYE for Sustainability learning tool is designed to provide a sufficient number of elements to guide both educators and learners in their endeavour, while leaving room for new interpretative possibilities and

applications within each of the four phases based on the specific learning context and learning needs. For example, we recognise that addressing the current societal and environmental challenges within the broad perspective of sustainability – as the EYE learning tool is designed to do – is merely one way to address these challenges. Nevertheless, we are confident that this does not hamper the tool's generative potential. We invite educators and learners who are interested in fostering agency in the midst of our societal and environmental challenges to experiment with the EYE, to improve upon it, and to expand its application.

References

- Ateljevic, I. (2013) 'Transmodernity: integrating perspectives on societal evolution'. *Futures*, 47: 38-48.
- Bandura, A. (2006) 'Toward a psychology of human agency'. *Perspectives on Psychological Science*, 1(2): 164-180.
- De Vries, B.J.M. and Petersen, A.C. (2009) 'Conceptualizing sustainable development: an assessment methodology connecting values, knowledge, worldviews and scenarios'. *Ecological Economics*, 68(4): 1006-1019.
- Ferdig, M.A. (2010) 'Sustainability leadership: co-creating a sustainable future'. *Journal of Change Management*, 7(1): 25-35.
- Freire, P. (2000) *Pedagogy of the oppressed*. 30th anniversary edition. New York, London: The Continuum International Publishing Group. www.bloomsbury.com/us/pedagogy-of-the-oppressed-9780826412768/.
- Ling, C. and Dale, A. (2013) 'Agency and social capital: characteristics and dynamics'. *Community Development Journal*, 48(4): 1-17.
- Maslow, A.H. (1943) 'A theory of human motivation'. *Psychological Review*, 50: 370-396.
- Mezirow, J. (1978) 'Perspective transformation'. *Adult Education Quarterly Journal*, 28(2): 100-110.
- Mezirow, J. and Taylor, E. (eds.) (2009) *Transformative learning in practice: insights from community, workplace and higher education*. San Francisco, CA, USA: Jossey-Bass.
- Speer, P.W. and Hughey, J. (1995) 'Community organizing: an ecological route to empowerment and power'. *American Journal of Community Psychology*, 23(5): 729-748.
- UNESCO (United Nations Educational, Scientific and Cultural Organization) (2012) *Shaping the education of tomorrow: full length report of the United Nations decade of education for sustainable development*. Paris, France: UNESCO Publications.
- Van Egmond, N.D. and De Vries, H.J.M. (2011) 'Sustainability: the search for the integral worldview'. *Futures*, 43: 853-867.
- Wals, A.J. and Jickling, B. (2002) 'Sustainability in higher education: from doublethink and newspeak to critical thinking and meaningful learning'. *International Journal of Sustainability in Higher Education*, 3(3): 221-232.
- White, M. A. (2013) 'Sustainability: I know it when I see it'. *Ecological Economics*, 86: 213-217.
- Zimmermann, M.A. (1995) 'Psychological empowerment: issues and illustrations'. *American Journal of Community Psychology*, 23(5): 581-599.