# 18

# Art and Connectedness within Sustainability: Educating Through Aesthetic Pedagogies

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**Abstract**

Different educational approaches have emphasised the relevance of experiential learning when approaching complex and highly dynamic systems and the need to combine different ways of learning, knowing and valuing reality when educating for sustainability. The arts, understood as accessible cultural practices and expressions, can help educators and learners in this journey by offering different lenses to understand and sense our world. Art experiences open up intuitive and non-verbal forms of engagement, drawing on tacit knowledge and emotions as a key source of insight into the dynamics of complex systems. The learning that unfolds from these experiences can be conceptualised as 'aesthetic learning': a kind of experiential learning that is visceral, emotional and intuitive and permits ambiguity, incompleteness, contradiction and complexity, providing a means to express these without reducing them. This chapter explores the potentials of 'aesthetic learning' in sustainability education, and specifically in reinforcing educators' work on sustainability competencies with learners. For this purpose, a diversity of arts-based educational experiences are reviewed in order to explore the potentials and tensions of these emerging aesthetic and critical pedagogies in the work of different sustainability competence frameworks.

**Keywords**

Aesthetic learning · Arts-based education · Experiential learning · Sustainability education · Competence frameworks

## Introduction

> A culture populated by a people whose imagination is impoverished has a static future. In such a culture, there will be little change because there will be little sense of possibility.
> Eisner (2002)

While the Competence Turn (Chap. 2) in sustainability education arrived to bridge knowledge with action in the context of 'wicked' sustainability challenges, it is also acknowledged that to transform individual capacities into real sustainability actions, more than knowledge and skills is needed: values, motivations and opportunities also lie at the core of transformational action (Rieckmann 2018). In this regard, the Competence Turn also involves a rethinking of pedagogies guiding sustainability education, emphasising

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*learner-centred and action-oriented* approaches (ibid). In these approaches, underpinned by constructivist theories of learning, learners take an active role in knowledge development through situated and reflexive learning processes that move "from transmissive towards transformative learning" (Sterling 2003, p. 11). Sterling considers *transformative learning* to be "a quality of learning that is deeply engaging, and touches and changes deep levels of values and belief through a process of realisation and recognition" that "inevitably gives rise to a heightened relational sensibility and a sense of ethical responsibility" (Sterling 2010, p. 514). Understood this way, the notion of transformative learning goes beyond cognitive, individual dimensions to include as well relational, normative and affective domains of learning. In this approach, the educator becomes a facilitator who empowers and challenges critically reflective learners to change their worldviews (Rieckmann 2018; Sterling 2010).

Transformative pedagogies emphasise the relevance of experiential learning when approaching complex and highly dynamic systems and the need to combine different ways of learning, knowing and valuing reality when educating for sustainability (Dieleman and Huisingh 2006; Sipos et al. 2008). Feeling and sensing, and not only understanding sustainability as an abstract and distant concept, become crucial in meaning-making and in engaging learners in sustainability transformations (Jickling 2017). Obviously, implementing these pedagogical approaches requires teaching methods and educational experiences aligned with their principles.

In this chapter, I explore the potentials of the arts and 'aesthetic learning' in sustainability education and specifically in reinforcing educators' work on sustainability competences with learners. For that purpose, I review a diversity of arts-based educational experiences and explore the potentials and tensions of these emerging aesthetic and critical pedagogies in the work of different sustainability competence frameworks. Specifically, the following explorative questions guide my inquiry: *How are the arts applied in these experiences and with which motivations? What kinds of insights are reported and how can they critically inform competence frameworks in sustainability education?*

Before that, the following section briefly contextualises the application of the arts within sustainability and environmental education and introduces the notion of aesthetical learning.

## Slow, Embodied, Aesthetic Pedagogies: The Artistic Turn in Sustainability Education

The arts, understood as accessible cultural practices and expressions, can help educators and learners in sustainability explorations by offering different lenses to understand and sense our world. Art experiences open up intuitive and non-verbal forms of engagement, drawing on tacit knowledge and emotions as a key source of insight into the dynamics of complex systems (Eisner 2002; Greenwood 2011). Arts' combination of cognitive, embodied, intuitive and emotional awareness and its appeal to open our senses are especially relevant in sustainability education, as they can illuminate the qualitative complexity of sustainability issues (Lehtonen et al. 2020) as well as foster different approaches to learning in highly explorative and motivating ways (Heras et al. 2016). The aesthetic experience resulting from the creation of art or the interaction with artistic practices and artworks, is mediated by the qualities of the arts—emergent, evocative, provocative, expressive, and thus, potentially conducive to new meanings and perceptions (Mantere 2004). At their best, the arts can provoke, unsettle norms and challenge assumptions, while they can also inspire and open up new perspectives through imagination, new connections and reflective thought (Saratsi et al. 2019). Furthermore, the arts can help strengthen emotional bonds between places and people, which lie at the base of personal motives for caring and acting (Inwood 2008).

The blending of the arts with sustainability has not only been encouraged by sustainability practitioners. In the 1960s, the environmental/ecological art movement sought new perspec-

tives and spaces for creative innovation in the face of pressing environmental and political concerns (Saratsi et al. 2019; Gabrys and Yusoff 2012), which also inspired art educators to stress methods specific to art in environmental education. Streaming from such a movement, the term arts-based environmental education was coined in the 1990s to refer to "a form of learning that aims to develop environmental understanding and caring by encouraging participants to become more receptive to sense perceptions and observations through artistic practice" (Van Boeckel 2013, p. 215). Such an approach does not only confirm the interdisciplinary nature of sustainability education but also its processual condition, "instead of framing it as a static content or a goal to be achieved" (Schröder 2018, p. 131).

Whether coming from one side or the other, these approaches share the unfolding of *sensuous*, *embodied*, *critical pedagogies* that emphasise sensory experience as a way of relating self to environments and others (Finley 2011) and promote disturbance and disruptiveness. In this way, rather than certainty, they aim at raising critical questions and experiences that help revisit the world in new directions (Eisner 2002). The learning that unfolds from these experiences can be conceptualised as 'aesthetic learning': a kind of experiential learning that is visceral, emotional and intuitive, it "permits ambiguity, incompleteness, contradiction and complexity and provides a means to express them without reducing them" (Greenwood 2011, p. 51). By appealing to our senses and to a refinement of our *organs of perception* (Van Boeckel 2013), these pedagogical approaches call for the slowing down of the educational process "in order to perceive the unknown, the sometimes wild and unexpected" (Mantere 2004, p. 2).

## Methodological Approach

For the purposes of my exploration, I reviewed 13 educational interventions worldwide, strategically and systematically selected from a review in the academic search engine Scopus using relevant keywords, to cover the crossing of sustainability and environmental education with art-based approaches.[1] The resulting sample was screened according to several inclusion criteria and the educational experiences selected to include a diversity of sustainability themes (e.g. climate change, connectedness to nature, biodiversity conservation, sustainability challenges), artistic practices (audio-visual, plastic, literary and performing arts), learning contexts (informal and formal), educational phases (from primary to higher education) and target groups (children, youth, adults) (see Table 18.2 in the next section). Rather than expecting to be representative of the universe of current and recent implementations, this exploration aims at illustrating the breadth and depth of aesthetic learning approaches and their different education potentials and challenges in the work of sustainability competencies in education. Further, only educational experiences that included—and were transparent about—evaluation methods were reviewed in order to ensure a reflexive analysis and properly supported insights.

Data from the 13 selected experiences were collected and organised according to: (1) information characterising the educational intervention (e.g. goals, context, number of participants, topics approached or artistic practices engaged with, Table 18.2); (2) information about the evaluation methodology (e.g. data collection methods and analysis strategies); (3) reported outcomes and/or insights of the experiences (Table 18.3). I then conducted a qualitative content analysis to: (1) identify motivations underlying the reviewed educational experiences; (2) link learning and educational potentials of these experiences with competencies for sustainability. The latter analysis was informed by a set of eight predefined themes corresponding to key sustainability competences previously identified in the literature by Rieckmann (2018); see Table 18.1. This framework was selected as it represents a compendium of six competency frameworks developed by

[1] 'Sustainability education' OR 'environmental education' OR 'education for sustainability' OR 'sustainability learning' AND ('arts' OR 'artistic' OR 'arts-based' OR 'embodiment' OR 'artful').

**Table 18.1** Analysis categories used to link learning potentials of arts-based sustainability education approaches with sustainability competencies. Compendium of key sustainability competencies proposed by Rieckmann (2018), p. 43–45

| Analysis category (sustainability competency) | Definition: the ability to... |
|---|---|
| Systems thinking competency | ...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 |
| Critical thinking competency | ...question norms, practices and opinions; reflect on own one's values, perceptions and actions; and take a position in the sustainability discourse |
| Anticipatory competency | ...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 | ...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 | …collectively develop and implement innovative actions that further sustainability at the local level and further afield |
| Collaboration competency | ...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 |
| Self-awareness competency | ...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 | ...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 (overarching competency) |

researchers and experts in the fields of sustainability science and education, gathering key sustainability competencies broadly acknowledged in the field as being of particular importance. Here, competencies are understood as individual dispositions to self-organisation which include an interplay of knowledge, capacities and skills, motives and affective elements in interaction (Rieckmann 2012, p. 129).

## Results and Discussion

In order to explore the purposes and potentials behind these educational experiences, I first inquired about the motivations to implement them and their specific developments. In a second set, I analysed what outcomes and challenges were reported and how they might connect to sustainability competencies. The next subsections present these two analytical streams and then discuss how these insights can critically inform sustainability competence frameworks.

### How Are the Arts Applied in These Experiences and with Which Motivations?

Most of the reviewed experiences apply forms of participatory art, in which participants are actively involved in the creation process. Only

**Table 18.2** Summary of the 13 experiences reviewed

| Source (reference) | Sustainability topic/s approached | Artistic domain and approach | Intervention (description) | Participants |
|---|---|---|---|---|
| 1. Lehtonen et al. (2020) | Climate change | Applied drama as a process tool | A two-day course to offer first-hand, personal experiences of using drama in sustainable education. It consisted on three drama participatory workshops: process drama work on the global, social and individual aspects of climate change; outdoor drama practice on relations to nature; and reflections through drama practice or work | Drama education teachers + researchers |
| 2. Raatikainen et al. (2020) | Management of meadows and wood- pastures within traditional rural landscapes | Various: creative writing, paintings, movement, crafts (socially engaged art) | One-week school intervention aimed at supporting environmental sensitivity through creative arts-based practices in natural settings, and providing the pupils with a basic understanding of the conservational importance of landscape management. It included 4 workshops (mostly outdoors) and one final public exhibition | 5th grade pupils from the rural land + teachers + 1 farmer |
| 3. Bentz (2020) | Climate change | Visual arts (drawings, aquarelle paintings and collages, digitalised) | Art for change project' in a high-school. A experiment with change that invited students to choose one sustainable behavior and adopt it for 30 days. During that time, each student developed an art project about their experience with change. The process also included a transformative learning program that encouraged regular reflection and group discussions | Secondary school students of design communication (art school) |
| 4. Sanchez et al. (2020) | Aquatic ecosystems | Muralism (community art) | Interdisciplinary and participatory environmental education research program involving the painting of several public mural displays as a tool for environmental education. Prior to this, there was a thematic workshop with researchers and environmental educators to discuss about the issues and then one artistic workshop to create the mural together with an artist | Local fishermen and inhabitants + Tachina women + school students |

(continued)

**Table 18.2** (continued)

| Source (reference) | Sustainability topic/s approached | Artistic domain and approach | Intervention (description) | Participants |
|---|---|---|---|---|
| 5. Trott (2019) | Climate change | Photovoice (a participatory action research method using digital photography) | 15-week after-school program combining hands-on climate change educational workshops with photovoice to simultaneously explore and expand children's role as agents of sustainable change within their families and communities. After each workshop, children took photographs conveying their perspectives of climate change, which were later translated into sustainability action plans in the wider community | Primary and middle school students from three different locations (separated groups): town, suburbs, city |
| 6. Gray and Birrell (2015) | Landscapes, land restoration | Various (poetic writing, dance, drawings, film, music, artistic notebook) | A year-long place-based enrichment programme using multi-modal creative methods with young participants. The programme connected students with artists and scientists working on an ongoing project of land restoration. Students' dialogue with diverse actors sought to broaden their creativity and provide immersion in the place as a stimulus for artistic creation | Gifted/talented students from primary and secondary school |
| 7. Inwood and Kennedy (2020) | Various (biodiversity; Indigenous knowledge; children environmental rights) | Art installations (as learning medium) | Environmental art education programme over 5 years in a higher education setting with pre-service teachers focusing on how environmental art education can be used to support learning about sustainability. The programme consisted on the creation of site-specific art installations exploring different sustainability topics, to be exhibited in the public space of the school | Pre-service teachers |
| 8. Van Boeckel (2013) | Connection with nature | Clay sculpture (as learning medium) | Different interventions in different countries over several years. An arts-based environmental education workshop in which participants make a small clay sculpture of one's self, a "little-me" with their eyes closed, followed by a group reflective dialogue | Diverse, but all high education adults (some teachers or teacher students) |

(continued)

**Table 18.2** (continued)

| Source (reference) | Sustainability topic/s approached | Artistic domain and approach | Intervention (description) | Participants |
|---|---|---|---|---|
| 9. Heras and Tàbara (2015) | Conservation, natural resource community management | Applied drama and storytelling (as a collective research tool) | One week participatory process to explore young people's perceptions of community forest management and their willingness and barriers to participate. Comprised by a theatrical workshop with young people, as an arts-based research method combining theatrical techniques with storytelling, drawings and guided discussions and group reflections, and the production of an interactive theatrical play, which expanded dialogue to the rest of the community | Teenagers from the indigenous community of Cherán |
| 10. Haynes and Tanner (2015) | Climate change adaptation and disaster risk reduction | Participatory video | A multi-stage process including several workshops where participants were trained in climate change, disaster risk reduction, and film-making; created their own films in the community, identifying priority issues for investigation, and led participatory screening workshops with communities and government officials | Youth from affected communities |
| 11. Manu et al. (2020) | Biodiversity conservation | Textile installations (art as boundary object) | Two textile installation projects inspired by the philosophical concepts and design characteristics of the cubism art movement, representing some of the anthropogenic activities that deplete the biodiversity resources in Ghana. The final installation textile projects are intended to be used by the forest reserves and wildlife sanctuaries for biodiversity conservation education | Faculty members (lecturers and students) from the college of art and built environment + natural park officers |
| 12. Savva et al. (2004) | Different notions of environment (natural, built, cultural) | Artworks made out of materials from the environment | A three-day teachers' in-service training programme, based on the use of the environment as an educational resource. It involved fieldwork applying first-hand experience of the environment (natural settings, rural-building settings, culture and tradition); theoretical lectures about environmental and visual arts education; and critical discussions with participants | Teacher students from nursery, primary and secondary school, with a particular interest in visual arts education |

(continued)

**Table 18.2** (continued)

| Source (reference) | Sustainability topic/s approached | Artistic domain and approach | Intervention (description) | Participants |
|---|---|---|---|---|
| 13. Missiou and Stefos (2012) | Sustainability problems related to deforestation, climate change, chemical hazards and others | Comics, supported by online apps | School project that implied reading and discussing comics of environmental content, and then conducting a small research on the issues approached in the comics. Students also analysed the use of comics to communicate environmental issues and were asked to design and publish their own environmental comics, which were later shared through Facebook | Secondary school students |

one experience (textile installations in Ghana) does not involve this hands-on approach and is based on participants' interaction with an artwork already created. Even though many experiences include an exhibition of their resulting artistic outcomes, in most of them the focus is on the art creation process itself (and the possibilities it opens for discovery, perception and expression), rather than in creating a final product of certain aesthetic characteristics. Borrowing the words from Raatikainen et al. (2020), these approaches emphasise art as a dialogic process, being the experiences generated at the core of the artistic-educational results.

Among the different motivations expressed to apply the arts or artistic processes within the experiences reviewed, there are three main themes that can be distinguished (although often interconnected): (1) *increasing knowledge or awareness* of sustainability challenges and socio-ecological dynamics, with an emphasis on stimulating learners' *system's thinking* and awareness of *interconnectedness*; (2) amplifying *personal and affective connections* with the environment, aiming at enhancing learners' *perception and sensitivity*; and (3) promoting *a sense of agency and collective action* through empowering learning experiences, involving, many times, group articulation.

The *relational dimension* is therefore key in these approaches, both understood in analytical and practical terms (i.e. integrated both in contents and pedagogical approaches) and approached cognitively, affectively and sensuously. The arts-based learning experiences reviewed commonly involve inquiry-based pedagogies, opening-up processes of exploration and inquiry, including in some cases participatory action-research, as well as place-based pedagogies, with an emphasis on the spaces where the learning takes place. In this regard, outdoors learning is a recurrent element (8 out of 13 experiences).

## What Kinds of Insights Are Reported and How Are They Linked to Competencies?

Table 18.3 shows reported outcomes of these experiences. If we look at these outcomes and insights through the lenses of sustainability competence frameworks, *self-awareness* stands out as the most approached competency, being present in all the reviewed experiences. Learners' self-awareness is approached twofold. First it refers to the *awareness of one's own body* and its feelings and sensations, through the refinement of sensory perception and attentiveness to interdependencies with/within the environment/s and others. Second, awareness is seen as a connection with one's own motivations to act and care, awareness of *being part of* (a community, a society, a common earth), through sense of belonging

**Table 18.3** Reported outcomes of the reviewed experiences. Blue letters indicate outcomes reported from educational experiences with teachers or pre-service teachers, while (*) refer to outcomes with both types of participants

| Motivations and purposes | Some reported outcomes |
|---|---|
| Increasing knowledge and awareness of sustainability challenges and socioecological dynamics | Increased awareness of interconnectedness |
| | Increased awareness of embeded nature connectedness |
| | Increased perception of the social-ecological complexities of climate change |
| | Discovery of new perspectives and relationships |
| | Increased knowledge and awareness of ecosystems' conservation |
| | Increased awareness of global climate change risks and harmful local impacts |
| | Changes in cognitive frames |
| | Integrating a diversity of views and connecting them to individual emotions and motives |
| | Stimulating critical thinking* |
| | Eliciting (intrinsic) values of nature |
| | (Lehtonen et al. 2020, Raatikainen et al. 2020, Bentz 2020, Sánchez et al. 2020, Manu et al. 2020, Trott 2019, Haynes and Tanner 2015, Heras and Tàbara 2015) |
| Amplifying personal and affective connections with the environment | Raising critical awareness about our ways of being in the world |
| | Developing individual-level connection to nature |
| | Acquisition of environmental values and building of sustainable visions of it |
| | Enhanced sense of place and sense of belonging |
| | Deeper appreciation of the natural environment and stronger affect towards nature |
| | Deeper engagement in the site |
| | Closer connectedness of students with the natural world |
| | Encouraging a sense of stewardship over the land |
| | Engagement with one's inner world |
| | Enhanced awareness of the body and its connections with feelings/sensations |
| | Expanding personal relationships with environments |
| | Conveying their own meanings in relation to the environment |
| | (Raatikainen et al. 2020, Bentz 2020, Sánchez et al. 2020, Gray and Birrell 2015, van Boeckel 2015, Saava et al. 2004) |
| Promoting sense of agency and collective action<br>Empowering learners | Creating hope, responsibility and care, as well as healing |
| | Developing a sense of trust* among participants and group cohesion |
| | Reinforcing sense of belonging to the group/community |
| | Recognising diversity in the group |
| | Promoting empathic dialogues* |
| | Increased awareness as a society, place in the world |
| | Increased self-confidence* |
| | Stronger personal creativity |
| | Stronger beliefs of being "agents of change" |
| | Overall positive attitude to climate change |
| | Supporting children's agency |
| | Expressing learners' own environmental speech, their own voice |
| | Greater confidence to question community members and decision-makers |
| | Active involvement in local action |
| | Increased motivation to pursue action |
| | (Inwood and Kennedy 2020, Bentz 2020, Manu et al. 2020, Sánchez et al. 2020, Raatikainen et al. 2020, Trott 2019, Gray and Birrell 2015, Haynes and Tanner 2015, Heras and Tàbara 2015, Misious and Stefos 2012, Saava et al. 2004) |

and responsibility, through affect. That is, *awareness of individual and group agency* and their role to play in sustainability transformations. These dimensions are closely related to *interpersonal or collaborative competencies* ($n$ = 9). While most of the experiences reviewed involved group work or interpersonal dialogues, these exchanges were mostly based on the recognition of different perspectives, resonance with other's experiences and empathy. As connectedness and embedment are important elements in many of the approaches, so are the competencies of *systems' thinking* ($n$ = 6), *critical thinking* ($n$ = 7) and *normative competency* ($n$ = 6). Further, in those experiences based on project development, *strategic and anticipatory competences* ($n$ = 4) were approached through the creation of conditions needed to work together (e.g. trust), the recognition of values behind action, the unveiling of tensions and contradictions of different paradigms (development, knowledge, etc.) and ways of being in the world and the assessment of consequences and impacts of different actions.

Finally, five experiences addressed teachers and/or pre-service teachers. Outcomes reported mostly relate to the enhancement of teachers' sensitivity to and personal relationships with the environment and an intensified embodied sense of place. One experience also focused on stimulating teachers' agency, helping them reflect on the roles they can play in sustainability transformations.

As shown in Table 18.3 and discussed in the next section, many of these outcomes become meaningful for the training of sustainability competences when linked with sustainability learning and educational motivations and purposes.

## How Can Reported Insights Critically Inform Current Frameworks of Sustainability Competencies?

First, the reviewed experiences reflect the potential of the arts to refine *our sensuous awareness and world engagement*. While sustainability education has placed much focus on sustainability problems (Lehtonen et al. 2020), sensing and connecting can be a first step to love and care, which are seen as preconditions for earth stewardship (Gray and Birrell 2015). In this sense, there is a precious opportunity in arts-based learning experiences to slow down and pay attention to ways of being that are often neglected in educational approaches: perception through our senses, awareness of our inner world and deeper engagement with the environments around us. *Sensing the world* emerges, thus, as a competency that can be developed through the arts, for instance, by reinforcing skills of *attentive listening* (Østergaard 2019), *sensorial imagination* (Van Boeckel 2013) or a 'sensibility to patterns that connect at multiple levels' (Kagan 2011). These are skills that are not just intuitive and they can be unfolded and refined through artistic experiences. Further, there is promising potential in the integration of arts-based approaches within outdoors learning, aimed at establishing personal connections between learners and environments. Although an aesthetic experience can emerge from interactions with the environment without the presence of the arts, arts-based approaches can boost this potential, while placing emphasis in this dimension and offering possibilities to experience and perceive sites differently.

Engaging with the world through the lenses of connectedness and embedment might afford as well to bring a fresh regard to *systems' and critical thinking competencies*. While bringing together cognitive and affective aspects and connecting them to broader socioecological contexts (Raatikainen et al. 2020), arts-based practices can approach complexity and interactions not only as analytical objects of study 'out there' but also as webs of relationships in which we are all involved personally, politically and practically. The questioning of frames and values, perspective taking and creative imagination are some artistic features approaching and confronting systems' complexity, by opening the door to new perspectives and relationships. Indeed, art's capacity to provoke a sense of *estrangement* or moments of de-familiarisation (Van Boeckel 2013) can bring a unique spark to critical and creative thinking in participants, opening-up their learning experiences to emerging meanings, questions and understandings, instead of acting on 'auto-pilot' (ibid).

In approaching sustainability challenges holistically, these experiences also illustrate the potential to work on learners' skills and positive attitudes related to their *agency*, both individually and collectively. Several of the experiences reviewed reported learners' increased awareness of sustainability challenges while also a feeling of empowerment to address them and look at the future with hope. Expressing and processing feelings and emotions can help learners cope with feelings of anxiety or hopelessness, while connecting with nature's beauty and love can connect them with motivations to act and care (instead of being driven by fear).

Further, as observed in the experiences, group work through the arts can help build trust among learners, a sense of group and cohesion and empathic listening skills that are key in any process of collective articulation. In this regard, arts-based experiences in sustainability education can help educators work on learners' *strategic competencies* by opening-up unconventional, fertile spaces for training transversal skills, capacities and attitudes relevant for engaging in collecting action (e.g. communication, listening, respect for others). In such processes, the arts can help educators bring *criticality* and *voices of dissent* (Finley 2011) that are relevant in the development of normative, strategic and collaborative competencies, through the *recognition of diversity and power relations* involved both in sustainability challenges and transformations. Power is a crucial dimension in sustainability commonly neglected in educational approaches, and the arts can contribute to unveil, analyse and disentangle power relationships, both conceptually (while approaching sustainability issues) and practically (within the group that is engaged in the learning process).

## Challenges and Needs: What Do Educators Need in Order to Engage with Arts-Based Sustainability Education?

While listing potentials of arts-based practices, there is a latent risk of instrumentalism. Are we tempted to fall precisely into the same prescriptive approach we want to avoid? In designing arts-based educational interventions, are we compromising the inherent value of the arts, which lays on its open, disruptive and emergent nature? As Østergaard (2019) points out, there can be a missed potential in framing arts 'as a tool' instead of a form of knowledge in itself. While pragmatic and certainly efficient to achieve certain goals, an instrumental use of the arts will inevitably miss some of its very intrinsic potentials. Therefore, it is first important to acknowledge that different understandings of the arts and specific implementations and contexts (including who participates) will lead to different experiences, potentials and limitations. The arts are generally recognised as facilitating access and being inclusive but this is not inherent to a designed arts-based activity, and ignoring learners' socio-cultural contexts and power relations can also lead to elitist, manipulative or even alienating learning experiences. In this regard, the potential lays out not only in the integration of the arts, but in the extent to which these practices are contextualised within a transformative learning approach, that is, questioning our beliefs and values, paradigm shifts, connecting practical, political and personal dimensions (Bentz 2020).

Second, arts-based learning experiences require skilled educators able to sustain them. Depending on the personal and professional background of the educator, some artistic practices will be more accessible than others. Many of the experiences reviewed involved drama or arts teachers interested in incorporating sustainability issues in their class. However, there were also experiences involving nursery, primary or secondary school teachers teaching other subjects but with an inclination and a sensibility to be involved in arts-based sustainability education. Obviously, it will be difficult to facilitate a process of deep sensory engagement if the educator has not experienced or developed such sensibility herself. Educators should nurture their own self- and sensuous awareness, listening skills and systemic thinking, as well as bearing an open attitude and curiosity. In this regard, as suggested by the examples in this review, arts-based prac-

tices could help educators work on their 'learning to be' competencies, according to the UNECE (2012) framework, such as sense of belonging, attentiveness and emotions management. These competencies have received less attention in the development of pedagogical strategies to promote them (Corres et al. 2020). Further, educators "should be able to bear witness to and hold the space for whatever enfolds in this encounter with artistic process' and 'walk the tightrope between control and non-interfering" (Van Boeckel 2013, p. 8). As a facilitator of learning, the educator engages through arts-based approaches in the dialectic tension of '*active non-activeness*', ensuring that the process can be developed in optimal conditions for learners to fully engage with it, but stepping back once learners are on track (ibid). Although sometimes not easy, this is in line with sustainability education approaches that claim a non-utilitarian or non-prescriptive view of competence-based learning (Sterling 2010). In this way, what might be seen as a challenge, might represent an opportunity as well for educators to refine their own sensorial perception and sensitivity to environments and relationships, and be able to engage in open-ended, emergent educational processes with learners.

## Final Thoughts

We live in a world made of relationships (Bateson 1972). At the root of current unsustainability challenges we find unbalanced relationships between different elements of socio-ecosystems and the neglect of the diverse relations and interdependencies that connect us, humans, with all living and nonliving beings in the Earth. Even the disconnection with our bodies—as the first and closest environment we live in, is an example of such neglect. Arts-based sustainability education might offer a chance to reconnect with, reassess and sense all of these webs of relationships. Through the experiences reviewed, relational and dialogic aesthetics emerge as catalysts of highly engaging experiences where educators and learners can sense their ways of *being in* the world and promote an awareness of interconnectedness, while exploring their capacity to be, to change, to care. Although not prescriptive, these experiences suggest a transformative learning potential that can be untapped by sustainability educators willing to engage in the mystery and open-ended nature of aesthetic experience.

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