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Transformative geography education: developing eco-capabilities for a flourishing and sustainable future

Nicola and Joy present 'eco-capabilities' as an approach to tackling some of our current unprecedented issues. They consider geography's rich setting as a mechanism for developing these capabilities and suggest ways to promote children's awareness of wellbeing and sustainability.

Current trends in transformative learning

Children and young people are facing a complex and uncertain future which has serious implications for their present and future wellbeing. According to the 2021 Good Childhood Report (The Children's Society, 2021), 12% of children aged 10–17 in the UK are experiencing low levels of life satisfaction and wellbeing, with school being among the least 'happy' aspects of their lives. While the educational and social ramifications of this are likely to be far-reaching, of particular relevance is that children's sense of wellbeing is highly associated with how they feel about their future, with 'illnesses/pandemics' and 'the environment' being their top concerns.

It is clear then that children's subjective wellbeing is firmly situated within the existential issues – climate change and sustainability – of our time. Indeed, so indicative is the weight of sociological and environmental distress on children and young people that there is a growing tendency towards the use of the phrase 'eco-anxiety' (e.g., Panu, 2020). Further, though a connection to nature is consistently associated with a greater sense of wellbeing, there is cause for concern that children are not spending enough time outdoors (Louv, 2005). While the mental health and wellbeing of children are featured increasingly in international policy outputs for addressing children's quality of life (e.g., the United Nation's Sustainable Development Goal 3: Good Health and Wellbeing, 2021), there is also a need for innovation in basic education pedagogy to support children and young people's connection with nature and, therefore, their wellbeing.

Within this very challenging wider context, it can be difficult to see how individual teachers can 'make a difference'; however, we suggest that Jack Mezirow's idea of learning as transformation (2002) might be useful. Transformative learning aims to move beyond simple acquisition of knowledge to genuinely transforming learners' worldviews, as:

> *… practice in recognizing frames of reference and using their imaginations to redefine problems from a different perspective* (Mezirow, 2002, p. 10).

This holistic and deep-seated approach has the potential to inform the teaching of sustainability and environmental education, so children are equipped to respond to the array of socio-ecological issues before them. These are educational outcomes students are both entitled to, with respect to their personal wellbeing, and are expected, in the face of climate crisis.

Critical implications for geography education

In thinking more specifically about the ways through which *geography* education is transformational and empowering for children, the notion of **psychogeography** might be used to support their physical and mental exploration of the environment. According to Debord (1981 [1958]), psychogeographies consist of spontaneous interactions with a landscape, whereby a person might:

> *… [abandon] their usual motives for movement and action, and let themselves be drawn by the attractions of the terrain and the encounters they find there* (p. 62).

Herein lie distinct possibilities for geography and geography education in schools, particularly with how we develop opportunities for learning outside the classroom.

New policy from the Department for Education frames how it sees the education sector's role in tackling the climate emergency as part of its Sustainability and Climate Change Strategy (DfE, 2022). The Strategy proposes five action areas, of which climate education is one, as well as highlighting the importance of a 'connection to nature'. While as a subject community we might argue that geography is conspicuous by its relative absence within the Strategy, the challenge arises for geography teachers to think critically about how their own classrooms promote an understanding of issues surrounding environmental and sustainability education, and how their teaching philosophies intersect with this wider political discourse. A genuinely transformative education that meets the needs of students will be likely to demand interdisciplinary reflection of this kind and a wider implementation of innovative practice. Because of its multi-layered and holistic educational framework, geography is primed to contribute to these domains; the Eco-Capabilities Project is one such example.

The eco-capabilities approach: lessons from the field

The Eco-Capabilities Project draws on Amartya Sen's theorisation of human capabilities as a representation of well-being or a 'person's ability

to reach valuable states of being' (1993, p. 30). Capabilities are future-oriented: they aim to provide humans with opportunities to achieve a state of physical, emotional, intellectual and existential wellbeing in life. Of note is that they consider an individual's potential to flourish, rather than their actual achievement or outcomes. The term **eco-capabilities** was coined to capture how children conceptualise a good and flourishing life (or wellbeing) through three components of sustainability: environmental sustainability; social justice; and future economic wellbeing (reflecting what geographers are familiar with as the 'three pillars of sustainability'). While we acknowledge that the prefix 'eco' may give an impression of a purely environmental focus, we developed the term as it is familiar and publicly understood, for example in the context of eco-schools or eco-clubs. Wellbeing from this perspective necessitates degrees of freedom and agency; however, social and educational structures sometimes restrict children's capacities to exercise these. The eco-capabilities approach seeks to remedy this by incorporating a concern for nature and the arts, the intersection of which can promote positive mental health and wellbeing in children. These ideas are especially relevant to addressing mental health and wellbeing inequalities among structurally disadvantaged groups, for whom the arts and nature are less accessible.

The overarching aim of the Eco-Capabilities project was to explore how working with artists in local environments supported children's connection to nature and, thereby, their wellbeing. Partnering with the charity Cambridge Curiosity and Imagination (CCI), we employed arts-based and participatory research in two primary schools in highly deprived areas of eastern England. Over eight full days, 101 children in years 3–5 (aged 7–10) worked alongside artists from CCI to engage in a variety of visually, theatrically, and musically creative activities while in nature. The activities engaged children with their physical environment in a variety of ways and through a range of senses, reconnecting them to nature through the arts (e.g., Figure 1). They also contributed to final fantastical maps which brought together stories, treasures, observations and imaginations from across the project (e.g., Figure 2).

Alongside the arts-in-nature days, we explored how children's *eco-capabilities* developed. Eight eco-capabilities emerged (Figure 3), which ultimately provided children with a framework to connect with, and take better care of, nature.

Here we consider four which might be particularly relevant to discussions of transformative geography education in a turbulent landscape: relationality (non-human); identity; autonomy; and mental and emotional wellbeing.

Eco-capability: relationality (non-human)

Across the project, children began to develop a greater sense of living in relation to and with concern for nature, including animals and plants; this included a greater awareness of how they intertwine with the non-human world.

Figure 1: Examples of artwork produced by the children throughout the artist-led days, including (a) land art; (b) poster paint and clay representation of a bee; (c) painting of the eye or knot in a piece of wood; (d) a watercolour and blackberry ink painting of a feature; (e) nature colour palettes; and (f) representations of self. **All photos:** © Nicola Walshe.

Figure 2: A fantastical map of Bramblefields, created by Tonka Uzu with children. © Tonka Uzu.

Eco-capability	Description
Autonomy	To have ownership or agency over aspects of one's life.
Bodily integrity and safety	To have good bodily health, and protection from physical risk or danger.
Identity	The qualities, beliefs, personality and expressions that characterise an individual.
Mental and emotional wellbeing	To love and care for those who love and care for us and to grieve at their absence. To be able to articulate/express all emotions and not have emotional development harmed by fear and/or anxiety. To be mentally healthy.
Relationality: human	To be able to live with and toward others, to recognise and show concern for other humans, to engage in social relations, to be treated with respect and dignity.
Relationality: non-human	To be able to live with a concern for and in relation to animals, plants, and the world of nature.
Senses and imagination	To be able to use senses and imagination, involving freedom of expression.
Spirituality	To be concerned with the spirit or soul, including but not exclusively related to, religion.

Figure 3: List of eco-capabilities (Walshe *et al.*, 2022).

The affective and reflexive responses they experienced during this learning process facilitated their building a deeper connection with nature and, as a result, children both expressed greater interest in its protection and exuded more environmentally sustainable attitudes. As one child proclaimed,

> *Remember! We are nature! So we don't destroy it, we take care of it.*

As they increasingly noticed and wanted to protect the environment, children also began to articulate greater frustration that their outdoor space was being mistreated, for example through littering. This taking responsibility for, and empowerment to change, their environment also reflects their beginning to perceive themselves *as part of nature* and is also a reflection of their subjective wellbeing. Establishing these human-to-non-human links is essential to secondary geography education, as students begin to plan more purposefully for future lives and careers which support the longevity of the planet.

Eco-capability: identity

This eco-capability characterises a person's attitudes, beliefs, personality, and expressive traits. As children spent more time outdoors and in nature, they grew increasingly comfortable with their physical presence in that space. This led to new strides in their self- and collective identities. One way this was facilitated was through body mapping, a process by which children created a life-size art depiction of themselves to represent their life's journey (Figure 1f). Children not only developed a clearer understanding of how they identified themselves but expressed a sense of security with 'who' emerged. One artist explained,

> *Their body is relaxed, the field is safe, and they feel they are really connected to the world … because they're safe. Because they are connected to their own selves. They're thriving. So they can find things within themselves, it makes them strong as little human beings can be.*

An especially powerful example of this was observed in Bartley (pseudonym), a child with traveller heritage. Though initially hesitant to share this aspect of his identity, with the support of artists he created a visual representation of his beloved horse, Patch. What transpired for Bartley was a heightened level of confidence in expressing his traveller heritage and pride in his background; this was exhibited, for instance, when he later rode the animal to school. At all stages of education, children's wellbeing depends on their need to feel secure in their identities, and for schools to be places where they are respected and cared for as individuals. In developing a sense of identity, this practice enabled children to better understand – and articulate – their identities. This is particularly important as we consider how we relate to and draw on the cultures, languages and lived experiences of our students, such as illustrated through the decolonising geography work across the community (e.g. Noxolo, 2017).

Eco-capability: autonomy

Multiple mentions by artists and teachers indicate that by engaging with arts in nature, children developed self-assurance and a sense of agency in the lives they lead. This appeared particularly applicable to groups of traditionally marginalised children who might be less empowered by traditional school systems and structures. As one teacher commented,

> *Children in my class who aren't as academically astute as others, and would struggle, before would be reluctant in class to answer questions, because they were quite aware of their own ability. Whereas now I've seen them absolutely flourish …*

For these individuals, autonomy and agency was instrumental to their willingness to participate in an environment they perceived themselves as belonging to. In this way, the development of autonomy empowered children to take action in local spaces, thereby supporting pro-environmental action. This raises interesting questions about the interplay between structure and agency in education, and how we might confront (and disrupt) school norms which can deter transformative learning experiences. If outdoor experiences are developed in this way, it highlights the potential of geography to be transformative for children and young people in and beyond the subject discipline.

Eco-capability: mental and emotional wellbeing

This eco-capability refers to the ways in which children experience love and care for others, how they cope with the loss or absence of these persons, how they express themselves emotionally, and whether they are inhibited by fear and/or anxiety. On how engaging with arts enables children to better communicate their emotions, one artist recalled,

> *I asked [child] 'do you like painting?' And she said, 'yes, because you can draw out your fears and express yourself'. I asked, 'what do you mean by that?' and she said, 'sometimes you can't express a fear from your mouth, but you can always draw it'.*

Children seek a physically and psychologically safe space where their emotional needs are validated. These needs for safety and belonging are no less important at the secondary level, when students begin to navigate increasingly complex social worlds. This research suggests undertaking art in nature provides this for them, supporting their connection with the natural environment and thereby generating positive feelings and attitudes both within themselves, but also towards others (human and non-human relationality).

Pedagogies for developing eco-capabilities

Four pedagogical principles were identified as being important for developing eco-capabilities, as they underpinned the wide-ranging practice of the arts-in-nature days:

- time and consistency being outdoors
- materiality and embodiment
- a sense of slowliness
- emotional expression

Children's creativity and imagination blossomed as a result of the prolonged time and regularity of engaging with nature. They gradually became more confident and comfortable outdoors, and so developed a stronger sense of agency and control over their learning. The encouragement to self-reflect on their relationship *to* and *in* nature led to the formation of what can be appreciated as pro-environmental identities. In addition to sparking positive affective responses to the outdoors, this practice helped children to embody nature itself by engaging with natural elements and exploring the boundaries of what they perceived as safe spaces. This non-human relationality required a degree of 'slowliness' so that children could meaningfully connect with their environment and be mindful of the intricate wonders around them; this meant ensuring time for unstructured and gentle interactions. Finally, arts-in-nature practice acted as a non-verbal mechanism for children to express themselves emotionally; this has implications for their associating positive thoughts and feelings with nature as well as for coping with sources of (eco) anxiety or discomfort.

Though this project was undertaken in a primary school setting, the artists have undertaken similar activities with young people of all ages; as such, the findings and implications of this project are highly applicable to the secondary school community. Within a secondary geography lesson, activities might include asking students to connect with spaces differently, for example by closing their eyes and sketching what they hear over five minutes; choosing three natural items from an area (such as a leaf or twig) and sketching them large, in fine detail; or producing a fantastical map using their imagination (e.g., Figure 2). Doing these sorts of activities would help students to reconnect with local, seemingly familiar, places (e.g. the school grounds), or better understand new places, for example as an early stage of a field trip.

Through these pedagogical approaches, all of which underpin the principles of psychogeography, arts-in-nature promotes children's wellbeing by allowing them to develop rich appreciations of the natural world and their unique attachment to it. Because they grow in self-understanding as a result of engaging in nature, they become more inspired to protect it – thereby becoming transformative. As such, geography teachers are especially equipped to embrace the eco-capabilities approach, seizing a window of opportunity for instilling foundational knowledge and skills in children who can subsequently contribute to the betterment of society (Leadership Council of the Sustainable Development Solutions Network, 2014).

Conclusion

At an urgent moment for the health and prosperity of future generations, the Eco-Capabilities project offers insight into fostering transformative learning in geography education, learning which is necessary to children's capabilities for wellbeing and sustainable living. These experiences are about more than knowledge acquisition; they involve a fundamental shift in how children situate themselves in, and exercise action towards, their precarious local and global contexts. There is a special opportunity for geography teachers to rally around new understandings of what children need to be successful in these areas, and to broaden their pedagogies in ways which beget worthwhile change.

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