EDITORIAL

WHAT SHOULD TRANSFORM? ADULT EDUCATION, SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL MOVEMENTS

In today's geological epoch of the Anthropocene, anthropogenic processes – the increasing impacts of human activities on the Earth and the atmosphere – are a key factor influencing the well-being of the planet (Burns, 2018; Decuypere et al., 2019; Lange, 2018; Wals & Benavost, 2017). Global warming is the consequence of the increased amount of carbon dioxide ($CO2$) and other greenhouse gases released into the atmosphere due to human activities. The growing environmental crisis increases the likelihood of negative irreversible impacts on both living and non-living nature (e.g., rising sea levels, melting ice and glaciers, acidification of the oceans, loss of biodiversity, floods, droughts) and humans (e.g., lack of drinking water, hunger, migrations, conflicts) (UN Environment, 2019).

One of the responses to the growing environmental crisis has been the *Paris Agreement*, an agreement under the auspices of the United Nations that has been accepted by many countries. Adopted in 2015 and ratified by 189 states so far, it is the first universal and legally binding global climate agreement. Its fundamental goal is to ensure a global response to the threat posed by climate change, namely, to keep the rise in average global temperature well below 2 °C in comparison with the pre-industrial period and to continue efforts to limit the rise in temperature to 1.5 °C in comparison with the pre-industrial period; this would significantly reduce the risks and impacts of climate change (UN, 2016, p. 5). Another global response comes in the form of the more than six million young people who have mobilized and joined the *Strike for Climate* movement led by Swedish environmental activist Greta Thunberg. These young people have urgently demanded immediate action in combatting climate change, because "the house is already on fire" (Ollis, 2020; Reid, 2019). The third global response may be part of the current Covid-19 pandemic: at least during its first wave, we have seen the human impact on the environment in the form of pollution and greenhouse gas emissions decrease noticeably (e.g., Khan et al., 2021; Rupani et al. 2020), which gives us hope that environmental change is achievable. However, more than a year after the pandemic began, it seems less and less likely that a "decisive shift towards renewable resources and an ecologically sustainable economy" (Dolar, 2020, p. 26) will in fact take place, with various industries already adapting to the new reality.

The field of education and adult education, from the global to the local level, has not remained immune to the problems caused by climate change and by the global environmental crisis. The mobilization of education for the needs of solving environmental challenges is nothing new. Such efforts have been observed since the end of the 19th century (in nature conservation education), in the 1960s (in the environmental education and environmental adult education of that decade), since the Rio Summit of 1992 sustainability education has been discussed, and today environmental and sustainable education and education for sustainable development have taken centre stage (Lange, 2018; Wals & Benavot, 2017). Today, education for sustainable development is promoted at the global level primarily by means of the sustainable development goals adopted by the United Nations in order to create a more just global society. The first agenda for the goals of sustainable development, *Millennium Development Goals and the Education for All*, was adopted in 2000 and included eight goals that were to be reached by 2015. The second, current and ongoing agenda, *Transforming our World: The 2030 Agenda for Sustainable Development*, was adopted in September 2015. It includes 17 ambitious goals addressing the three predominant aspects of sustainability: economic, social and environmental. These sustainable development goals (SDGs) should be reached by 2030, and education is to play an important. SDG 4 – ensuring inclusive and equitable quality education and promoting lifelong opportunities for all – is central to achieving sustainability (Benavot, 2017; Boeren, 2019; Burt, 2019; Komatsu et al., 2020; Orlović Lovren & Popović, 2018; Schreiber-Barsch & Mauch, 2019).

However, the SDGs pose a problem because they are based on two incompatible philosophies: capitalist commitment to economic growth on the one hand and respect for the planet's resources and limits as well as a commitment to transforming the world on the other (Wulff, 2020). The European Green Deal (European Commission, 2019), striving for a climate neutral Europe by 2050, seems to follow a similar type of logic by basing economic transformation on change, innovation, and growth (global competitiveness, creating green jobs, digitalisation). In contrast with eco-capitalism ("green capitalism"), for example, proponents of *degrowth* (e.g., Liegey & Nelson, 2020; Plut, 2019; Živčič, 2015), which started developing in the 1970s and had its first international conference in Paris in 2008, stand for retaining a quality of life while reducing the use of materials, resources, and various other forms of environmental exploitation. In contrast with the growth-based economic model, degrowth offers society and the ecosystem an alternative to both liberal and green capitalism. In short, it is vital to shatter the illusion that the economic world order based on permanent growth and maximised profits is environmentally sustainable and to ask, as Komatsu et al. (2020) do, how modern education contributes to maintaining and reproducing this illusion.

Environmental and sustainable education can take place in different contexts (Lange, 2018): in the formal education system as well as in non-formal education and informal learning in civil society – in NGOs, through social movements, and via social media – in the workplace (see Lemmetty & Collin, 2020), and through professional associations and unions (see Clarke & Lipsig-Mummé, 2020).

We can distinguish between two main approaches to environmental and sustainable education. The first approach focuses on education that seeks to develop environmental knowledge, skills, attitudes, technological solutions, etc., which can lead to changes in environmental behaviour and human behaviour (e.g., recycling, water conservation, reducing greenhouse gas emissions), but maintains the status quo in the existing social, economic, and political system. The second focuses on education and aims to create a reflective and responsible citizen who is capable of independent decision-making and acting in accordance with the principles and values of sustainable development (e.g., learning about the nature of human-planet relations and thus dealing with the root causes of destructive environmental governance) and seeks to change existing relationships and power structures. These two approaches have been given different names by various authors: an "instrumental" and "emancipatory" approach (Wals & Benavot, 2017), a "conservative" and "radical" approach (Griswold, 2017), or a "shallow" and "deep" ecological model of education (Misiaszek, 2012).

Research, on the one hand, shows that education plays an important role in addressing and solving environmental challenges, as it leads to greater sensitivity to environmental issues as well as to pro-environmental policy actions, personal transformation (e. g., changes in one's lifestyle), as well as wider environmentally-friendly social changes (e.g., Cordero et al., 2020; Gal & Gan, 2020; Moyer & Sinclair, 2020; Seddon, 2016; Wals & Benavot, 2017). On the other hand, critics point out that while education plays an important role in shaping an individual's perception of climate change, it does not necessarily lead to change in individual behaviour, that education is not about solving environmental and social problems – in the SDGs education is set out as an instrument (cf. Mikulec, 2018) always in service of achieving other SDGs – and that the education agenda for sustainable development merely supports the existing neoliberal capitalist system and does not change power relations and structures of oppression in society (e.g., Elfert, 2019; Gadotti, 2008; Ireland, 2018; Komatsu et al., 2020; Reid, 2019; Zaval & Cornwell, 2017).

Since it appears that the matter of transformation is what lies at the heart of environmental and sustainable education (Burns, 2018; Clover et al., 2013; Elfert, 2019; Misiaszek, 2016; Schreiber-Barsch & Mauch, 2019; Walters, 2018), the question remains open who, what and should be transformed, and to what extent? One of the key questions of environmental and sustainable education, then, is: What needs to be transformed and what needs to be sustained (cf. Wals et al., 2017)?

In researching this question, we can draw on theories of transformative learning, which have a rich tradition in the field of adult education. As Lange (2019) notes, we can distinguish between three transformative learning approaches that promote (1) individual change at the micro level, (2) transpersonal and organizational change at the meso level, and (3) social change at the macro level. The first approach stems from Jack Mezirow's (1991) transformative learning theory and refers to perspective transformation – that is, to a system of uncritically accepted beliefs – so that learners become more inclusive,

open, emotionally capable of change, and reflective and thus able to create beliefs and opinions that are more real and justified. The emphasis is on change in the individual – the change of his worldview, behaviour, epistemology and, ontology (cf. Hoggan, 2016) – which is based on the cognition and rationality of the individual or on the capacity for critical reflection, without which there can be no transformative learning (cf. Fleming et al., 2019). The second approach emerges from Carl Gustav Jung's analytical depth psychology and from organizational transformation theory, where transformation refers to a fundamental change in an individual's personality that leads to wholeness of Self. It is transpersonal, as it promotes the connection between the individual's Self and the rest of living and non-living nature. This theory of transformative learning extends beyond rationality into the domain of emotions, symbols, and imagination. The third approach emerges from the works of Paulo Freire (2005) and focuses on social changes at the macro level. Here, transformative learning takes place as conscientization (*conscientizacão*), a process in which learners develop an awareness of the economic, technological, political, and cultural structures in society that contribute to inequality and oppression; it is essential that learners reflect on the world and thus change it, brings in liberation on both a personal and a social level. By combining action and reflection, conscientization therefore entails "praxis." It is also crucial that this type of education be built on vision, hope, and utopia, on thoughts of a possible better world, and not limit itself to criticizing various forms of oppression. That is how this approach circumvents the neoliberal fatalistic agenda that denies the possibilities of a different world (Ireland, 2018). Freire-inspired environmental and sustainable education is evolving today in the ecopedagogy movement, especially in Latin America. Such education seeks to change existing human, social, and environmental relationships, while promoting collective eco-literacy and planetary citizenship in opposition to neoliberal globalization and imperialism (Gadotti, 2008, 2011; Kahn, 2010; Misiaszek, 2012, 2016). It is also evolving through environmentally oriented social movements around the world that strive for social and environmental change as well as environmental justice through collective action and the generating of new knowledge (e.g., Burt, 2019; Clover et al., 2013; Kahn, 2010; Ollis, 2020; Walters & von Kotze, 2019).

Research on sustainable development and transformative learning also opens up a fourth approach: transformative sustainability education. This approach relies on a relational understanding of sustainable development – highlighting the way of living and knowing in which we are all interrelated and interconnected – and on questioning the fundamental ontological, epistemological, and cosmological roots of our societies (Burns, 2018; Lange, 2018, 2019).

This thematic issue of *Studies in Adult Education and Learning* comprises of six thematic articles, whose authors reflect on the challenges of sustainable development, environmental and sustainability education, environmental movements, transformations, and examine the role of adult education in these areas from various theoretical perspectives and by applying diverse methodological approaches.

In *Educating During the Great Transformation: Relationality and Transformative Sustainability Education,* Elizabeth A. Lange, Joy Kcenia Polanco O'Neil, and Katie E. Ross discuss how individuals and societies steeped within the Separation Paradigm – based on the industrial (technological) values of Western Eurocentric culture – are unwittingly destructive because they do not perceive the relational nature of our universe. The authors show that current educational processes, including sustainability education, continue to reproduce the Separation Paradigm. In contrast, they argue in favour of the Relationality Paradigm, relational ways of knowing and being, that require the transformation of Western ideas about the universe, ways of being, ethical principles and epistemology. Finally, they explore the implications that a possible shift in worldview will have for educators and educational processes, especially in transformative sustainability education.

Shirley Walters and Astrid von Kotze's article, *Making a Case for Ecofeminist Popular Education in Times of Covid-19*, also discusses the necessity of a radical world transformation. Within the theoretical framework of ecofeminism, which examines questions of patriarchy, capitalism, and environmental degradation, the authors conduct a critical analysis of a women's health course in the South African Republic, which serves as a case study of popular education in the time of Covid-19. They discuss how the curriculum should be changed so that the knowledge acquired during the course would serve the participants in a real and tangible way, leading to transformative change. By identifying the principles of ecofeminism that are significant for educators, the authors conclude that the elements that directly affect the lives of the participants (e.g., food security, water) are the ones that can challenge the dominant perception of nature as a "thing" and establish a new perception of nature as a complex and interrelated ecosystem.

In *Museums, Socio-Ecological Thinking, and Activist Pedagogies of Imagination*, Lauren Spring and Darlene Clover examine the role of museums in the current environmental crisis, as well as other important institutions that are often overlooked in literature concerning this pressing global issue. These institutions can address the question of environmental justice and environmental adult education and lifelong learning. On the one hand, the authors show how museums have dealt with the practice of "monocultural" (non-sustainable) thinking, which preserves the patriarchal capitalist neoliberal structure and the human/non-human binary division of power, dominance, and control. On the other hand, they highlight an increasing number of museums are now changing their approach. In analysing examples from Canada, the authors illustrate how by intentionally addressing environmental questions, museums create "oppositional views", which function as pedagogical sites of resistance and work towards achieving social and environmental change.

Siniša Kušić and Renata Hasel's article on *Adult Education Teachers' Competencies for the Implementation of Sustainable Development* centres on an empirical study conducted with a sample of teachers working in adult education institutions in Croatia. The study examines whether the teachers possess the necessary competencies to implement sustainable development education. The authors find that while the teachers have a positive

attitude to sustainable development, their knowledge of the concepts of sustainable development is poor and they only partially possess the competencies required to implement it in adult education.

In *From Colonial Learning to Education for Sustainable Development: A Review of Selected Educational Concepts Concerning Global Interdependence* Tadej Košmerl analyses some of the core concepts employed by intergovernmental organisations (primarily UNESCO and OECD) concerning education, such as global education, global learning, global citizenship education, development education and education for sustainable development. Košmerl finds that on the one hand, such concepts lead to a lack of terminological and conceptual clarity, while on the other, challenges posed by environmental issues and sustainable development have been at the forefront during the last decade, and organisations that use and develop these concepts are now placing them within the context of sustainable development goals. The author points out that the goals do not represent a radical alternative to the systems that have led to our current environmental crisis but are an attempt to adapt these systems in a way that would enable (or even accelerate) further economic development.

Nevenka Bogataj's article, *Education for Sustainable Development Enhances Public Interest in Adult Education,* discusses the need to incorporate environmental topics into adult education in Slovenia. Education for sustainable development needs to become part of a more comprehensive system and one of the country's strategic priorities. Bogataj analyses three aspects of adult education for sustainable development – systemic support, research bases, and education on offer – and finds that it contains the potential for re-conceptualising adult education not as based on an exclusive and deficit-based paradigm, but as an inclusive, potential-based and asset-based paradigm.

In addition to the thematic papers, this issue also features two open papers, a report, two reviews and two *in memoriams*.

The first open paper is Urška Gačnik and Jernej Kovač's *A Study of Opinions on Culture and Arts Education for the Elderly.* The article is based on a sample of elderly residents in retirement homes in Maribor, Slovenia. The authors find that most elderly people are aware of the importance culture and arts education has, and that men and people with a higher level of education assign more importance to this type of learning. The second open paper is Marija Rok's *Workplace Learning in the Context of Higher Education Internships: The Case of Tourism.* It specifically deals with higher education in the field of tourism in Slovenia; based on an analysis of the existing systems for practical training in this area, Rok develops a new model for practical training in tourism by identifying the main quality indicators of such a system.

Andraž Fink's report on *The Usefulness of the Teacher's Climate Guide Website for the Self-Education of Adult Educators and for Planning Adult Education on Environmental Issues* finds that the website is a valuable resource for developing various forms of adult education connected with understanding environmental issues. Next, Tadej Košmerl

reviews *Environmental and Animal Abuse Denial: Averting Our Gaze* and Dušana Findeisen reviews *Starost II: Biti v svetu* (*Old Age II: Being in the World*). The issue closes with Sonja Kump's and Zoran Jelenc's *In memoriam* of Sabina Jelenc Krašovec – an editor of *Studies in Adult Education and Learning*, a professor at the Department of Educational Sciences, a researcher in the field of adult education, and our beloved colleague, whose memory we will keep in our hearts forever.

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