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Editorial: Transformative learning, teaching, and action in the most challenging times

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Editorial on the Research Topic

Transformative learning, teaching, and action in the most challenging times

This Research Topic invited articles on sustainability-related transformative learning, transformative teaching, and transformative actions or practices in the field of higher education. The focus was based on the proposition that classic models of education have not managed to deal with the complexity of current socio-environmental world problems. Therefore, sustainability education should offer learning settings and promote learning processes that enable learners to critically reflect on their attitudes, values, paradigms, and worldviews, which may lead to conceptual change and thus transformative learning (Sterling, 2011; Balsiger et al., 2017; Rieckmann, 2020).

Transformative learning theory

With its roots in ancient philosophy, *transformative learning* has extended within twentieth-century critical enquiry to oppose hegemonic oppression. Transformative learning theory was developed by Jack Mezirow, inspired by several other scholars, among them Karl Popper, Paulo Freire, and Jürgen Habermas (see, e.g., Mezirow, 1991; Mezirow et al., 2009). As a teaching practice, transformative learning emphasizes critical thinking, reasoning, and reflection as ways through which to challenge the learners' assumptions and even transform their worldviews. In addition to higher education, the theory is applied to a range of formal and informal adult learning settings. Part of a broad

Wolff et al. 10.3389/feduc.2022.1041914

educational discourse, transformative learning has become popular in sustainability education (see Taylor, 2007; Lange, 2019; Wolff, 2022).

As editors, our intention was to bring together the most current theories and empirical studies on transformative approaches in sustainability education across higher education contexts. We particularly hoped to promote research exploring alternative, innovative, and critical ideas about how sustainability can transcend its entanglements with unreachable policy aims and make an actual difference.

The topics of the articles

The submissions engaged with a multiplicity of ideas on what transformative learning is. Four major themes are evident in the nine accepted articles with a total of 28 authors: competency discourses in relation to transformation, the role of emotions in transformative learning, the role of universities in relation to global policy, and the flexibility of transformative learning theories. The diversity within these articles reflects the significance of current uncertainty and the potential of transformation in educational practice.

Competency discourses in relation to transformation

Redman and Wiek undertook a vast systematic literature review to explore competencies for advancing transformations toward sustainability. Five established and three emerging key competencies were focused on. The authors focus on three emerging key competencies, and see these competencies as an integrated framework connecting science, education, and society in the transformations of the Sustainable Development Goals, and further. Jaakkola et al. propose a more critical view of competency thinking in sustainability education. Their article aim to develop a deep understanding of the concept of self-awareness, and on how the development of such self-awareness might be a necessary process for transformative learning.

The role of emotions in transformative learning

The importance of understanding the roles of emotions in what and how people learn about sustainability issues is central to the article by Singer-Brodowski et al. They emphasize the necessity for safe spaces within which learners navigate the uncertainty of current times. Environmental films created the emotional engagement of viewers in an online course, which was evaluated by Esmail and Matthews-Roper. In their article, the authors recommend viewer response strategies to

support student engagement and learning about sustainability and climate change in higher education.

The role of universities in relation to global policy

Three of the articles in the special issue relate higher education to global policy. Wolff et al. explored transformation and transformative learning within teacher education programs. They compared policy advice on sustainability education offered by UNESCO and teacher education policy in Finland. Mpofu-Hamadziripi et al. adopted a case-study approach to compare transforming curricula from Austria and Zimbabwe. Arguing for synergies between the Global South and the Global North, they assert universities' agency in sustainability and change. Varela-Losada et al. recommend more research situated in diverse social-cultural contexts that is global, connected, and pluralistic. This is informed by a bibliometric analysis of publications on transformative learning for sustainable development.

The flexibility of transformative learning theories

Two of the articles assert that transformative learning has to be continuously developed. Rob VanWynsberghe questions the conceptualization of transformative learning in single courses or programs, and argues that becoming a practitioner in sustainability is a life-long and life-wide commitment involving both formal and informal learning. Friedman attempt a reorganization of transformative learning theory through the work of Vygotskian cultural-historical activity theory, and a newly synthesized meta-theory of learning and development. In so doing, he articulates research questions and hypotheses that may be amenable to observation and analysis.

Conclusion

At the time of writing this editorial, the validity of transformative higher education approaches *with sustainability* was again foregrounded. From June to August 2022, the weather was extremely warm in parts of North and South America, southern and eastern Asia, western and southern Pacific Ocean, Europe, and Antarctica. In some regions, it was the warmest ever recorded, with the fourth failed rainy season in the Horn of Africa. The Russian invasion of Ukraine saw much of Europe burning more coal. COVID-19 continued to frustrate the world and its universities.

It is challenging to imagine how universities that have experienced, maintained, or participated in the creation of the Wolff et al. 10.3389/feduc.2022.1041914

unsustainable state of the world can transform to address the scale of these dilemmas. While the role of higher education is intricate, we believe sustainability education can and should continue to contribute to further development of transformative learning in higher education.

The complex challenges imply profound changes to thinking, practice, and socioeconomic models. Some of the articles in this special issue offer answers, others raise questions anew. What the special issue affirms is the need for change in many areas of education, including teaching, learning, research, actions, and policy.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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