



Transformative Learning and Teaching Settings for ESD in HEI

Karin Oberauer¹⁺², Hannah Geuder¹, Bettina Knoflach¹, Stefanie Mössler¹, Johann Stötter¹, Lars Keller²

¹ Institute of Geography, University of Innsbruck, 6020 Innsbruck, Austria

² Institute of Subject-Specific Education, University of Innsbruck, 6020 Innsbruck, Austria

1 Background

In the light of Agenda 2030, **education** is broadly recognised as **goal in itself** as well as **key to achieve all other Sustainable Development Goals** (SDGs) [1]. In an Austrian context, especially target 4.7 is relevant, and even more so concerning the project UniNETZ (*Universities and SDGs*):

“By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.” [2]

One of the UniNETZ main missions is transformation in the field of teaching [3], including i.a. development and implementation of new study programs, reorientation of curricula towards SDGs and Education for Sustainable Development (ESD) and the support of educators to initiate the transformation towards transformative ESD. Transformative ESD is characterized by *“experiential and explorative learning that involves ‘head, heart and hand’ through cognitive, socio-emotional and behavioral dimensions. [...] It is also important to empower students, educators and other stakeholders to co-create pedagogies, materials and monitoring mechanisms in order to create a sustainable and inclusive future to all.”* [4]

Goals:

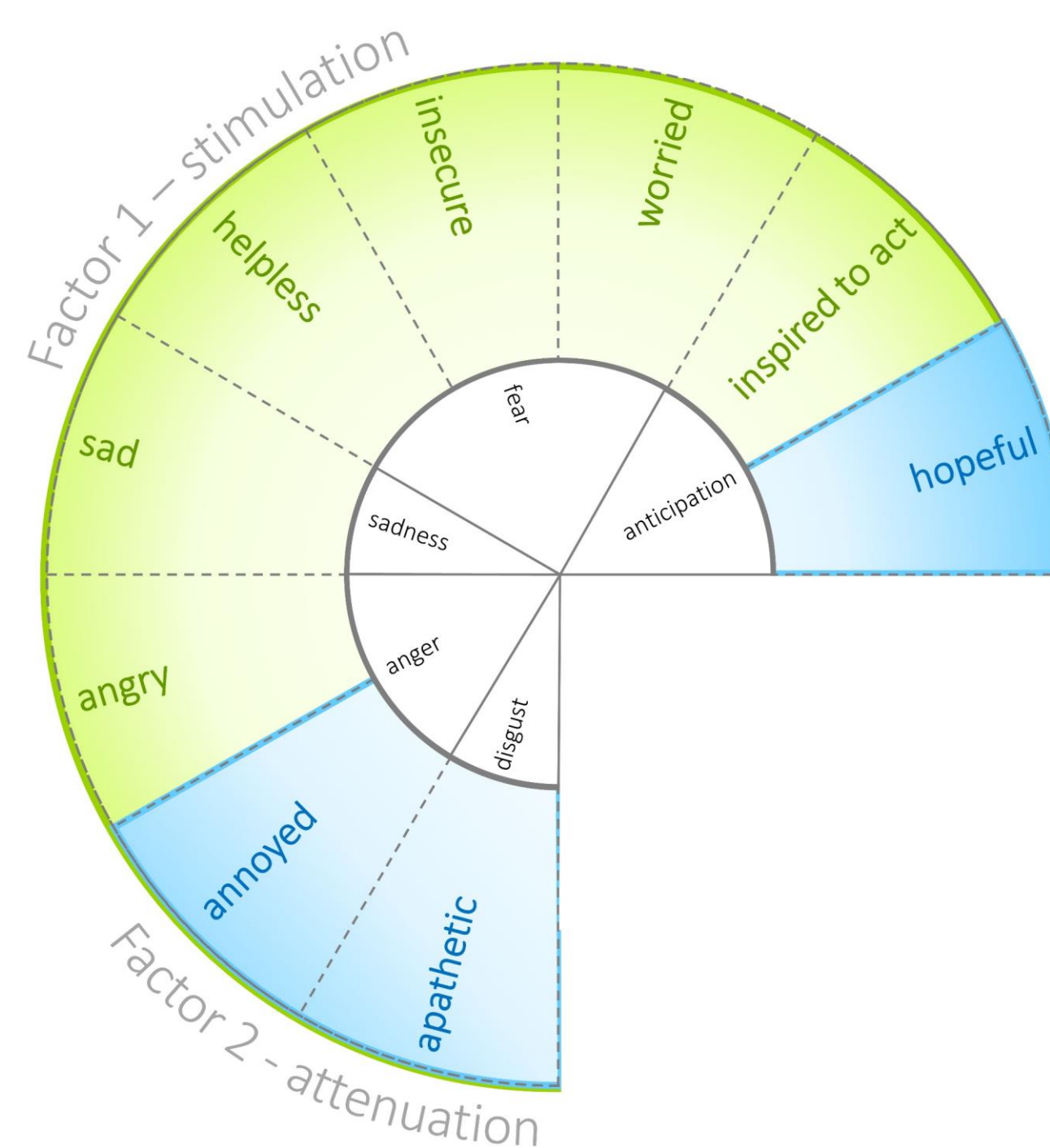
Obviously, there is a need for transformation of education in general and the field of teaching in Higher Education Institutions (HEI) specifically. Therefore, the following steps are essential:

- **Evaluation** of existing learning and teaching settings (Study: Sustainability within HEIs Teaching)
- **Participatory process** supporting learners and educators to transform learning and teaching settings within HEI

2 First Results

Major findings of a preceding study [5] are:

- 1) Climate change, which is clearly related to the SDGs, triggers emotions in learners,
- 2) learners’ level of complexity thinking is associated with certain groups of emotions, and
- 3) educators need to pay greater attention to emotions within climate change education.



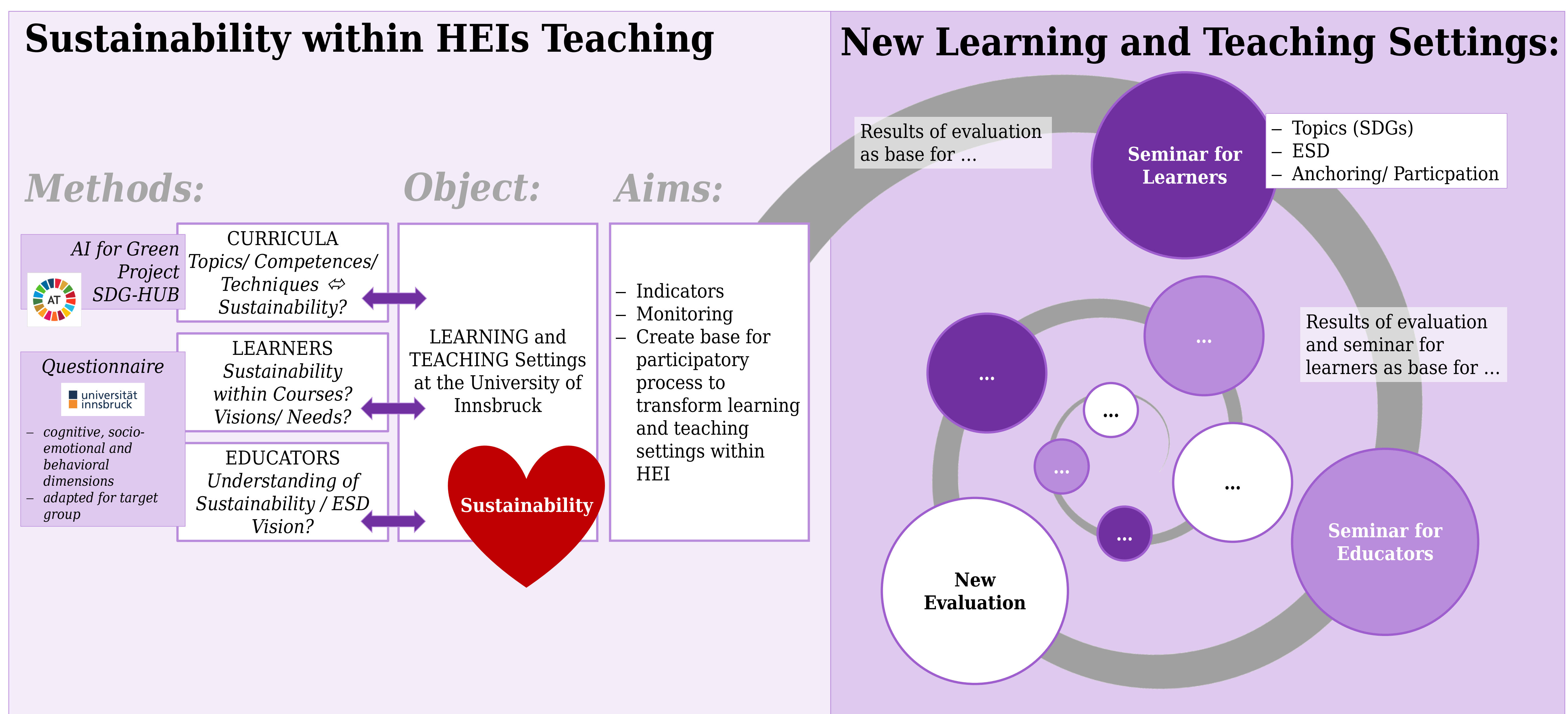
Model of correlation between types of emotions and complexity thinking competence [5]

Within this study, one group of emotions was associated with higher levels of complexity thinking competence (green). Another group of emotions diminished the level of complexity thinking competence (blue). This is an approval for the relevance the socio-emotional dimension of transformative education. The integration of emotions in ESD is in line with the claim to involve cognitive, socio-emotional and behavioral dimensions to new transformative learning and teaching settings.

Nevertheless, there is a need to analyze HEIs teaching according to all dimensions, in order to further develop existing learning and teaching settings, or to create new ones. Although, these findings are connected to a survey of secondary students, they also apply for teaching in HEI.

3 Next Steps

Pilotstudy: universität innsbruck



Literature:

- [1] UNESCO (2017): Education for Sustainable Development Goals - Learning Objectives. <https://unesdoc.unesco.org/ark:/48223/pf0000247444> (last accessed, 2023-03-21)
- [2] United Nations (n.d.): Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all - targets and indicators <https://sdgs.un.org/goals/goal4> (last accessed, 2023-03-21)
- [3] UniNETZ (2023): Policy Statement. https://www.uninetz.at/optionenbericht_downloads/PolicyStatement_english_A4_akt.pdf (last accessed, 2023-03-21)
- [4] UNESCO (2022): 5th UNESCO Forum on transformative education for sustainable development, global citizenship, health and well-being. <https://unesdoc.unesco.org/ark:/48223/pf0000381592> (last accessed, 2023-03-21)
- [5] Oberauer, K. (2022): The impact of teenager’s emotions on their complexity thinking competence related to climate change and its consequences on their future: looking at complex interconnections and implications in climate change education. In: Sustainability Science. DOI: <https://doi.org/10.1007/s11625-022-01222-v>.