

MAKING CHANGE! in Austrian Secondary Schools

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Aims of the Research-Education-Cooperation *makingAchange*

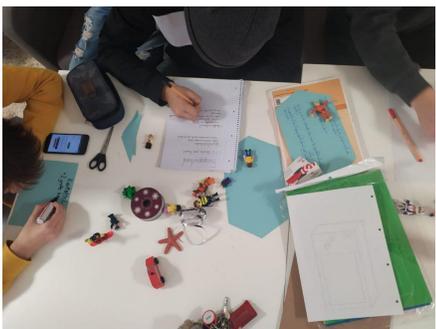
Climate Change and loss of Biodiversity are among the most urgent challenges of the 21st Century, creating a strong need for societal transformation. Like the Paris agreement/ SDGs and Education for Sustainable Development (ESD), most recent agreements attribute education a key role in sustainable development. Quality Education (SDG4) is recognized as the key to achieving all other SDGs¹.

The research-education-cooperation *makingAchange* aims not only at **developing** and **implementing ESD formats**, but also **scientifically evaluates** the effectiveness of those formats. The major premises of *makingAchange* are to increase participants' awareness of Climate Change (Consequences) and Biodiversity, to empower learners to deal with the challenges of the 21st Century, and to alter their understanding of possibilities to personally contribute to sustainable development (SDG13). Learning settings being interactive, action and problem-oriented, and learner-centered are acknowledged to be especially effective elements of transformative learning via ESD².

As the projects' title already suggests, there is a need for change within Austrian secondary schools, or at least for development. ESD includes many didactical elements, like moderate constructivism³, inter- and transdisciplinary learning⁴, project-based learning or peer learning⁵, which are not new and their importance has already been widely acknowledged. Still, these elements are not yet fully implemented in Austrian schools. This is where *makingAchange* wants to make the change, suggesting specific recommendations in the form of ESD formats, and requesting their implementation within the Austrian standard school system.



Climate Week: Pasterze, BORG Bad Radkersburg.
Foto: Karin Oberauer (2021)



Interdisciplinary Project Learning/Teaching: Students of HBLA Oberwart create their own Project ideas.
Foto: Michaela Resetarits (2021)

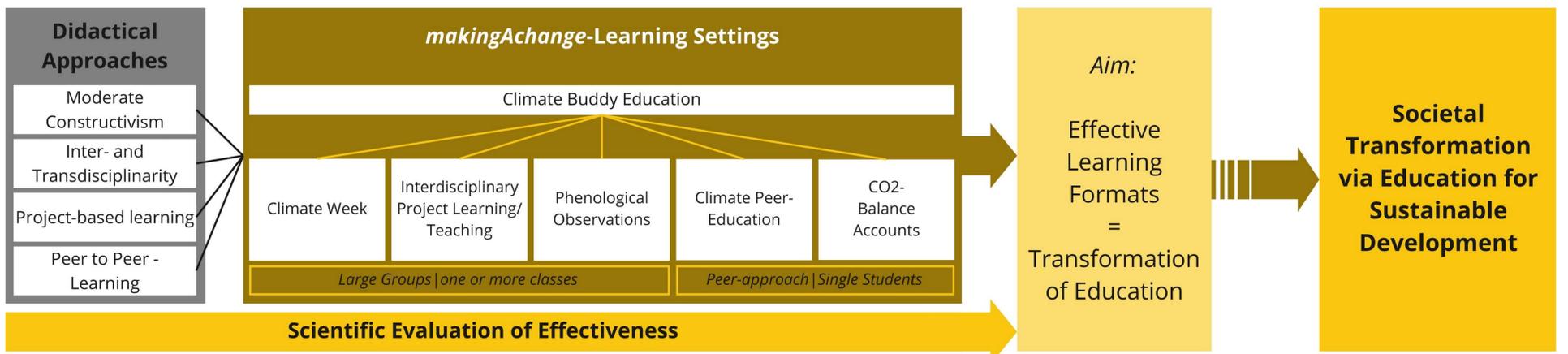
During a transdisciplinary **Climate Week** within, for example, a high mountain region, students engage with topics like glacier, tourism, environmental ethics or vegetation in combination with Climate Change.

During **Interdisciplinary Project Learning**, participants individually choose a topic and develop a project within their area of influence, therefore contributing to a profound transformation within their own schools.

Students set up and maintain their own research site to make **Phenological Observations** within an entire school year, which is a powerful possibility to make Climate Change (Consequences) visible.

According to the peer learning approach, **Climate Peers** are empowered to act as change agents within their own community (within and out of school).

Doing a **CO2 Balance Account** of their own school enables participants to identify the largest drives of emissions and to derive appropriate steps to reduce these within their community.

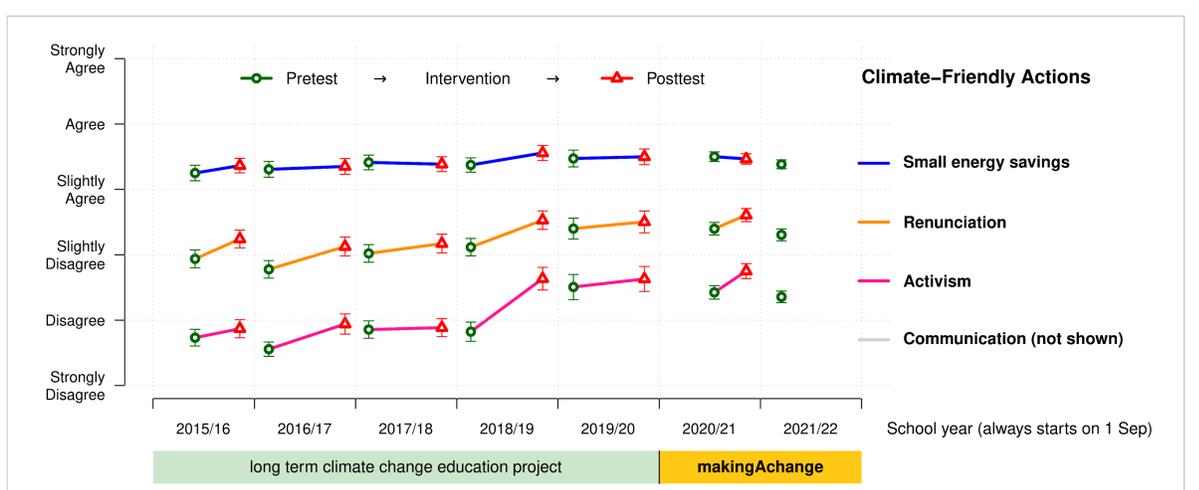


The *makingAchange*-Effectiveness Analysis

One major aim of *makingAchange* is to scientifically evaluate effectiveness of the *makingAchange-formats*. Therefore, a 3-step model was introduced, including:

- **Process analysis:**
What influences the effectiveness of the measures?
- **Outcome analysis:**
How effective are the measures?
- **Outreach analysis:**
To what extent are the objectives and target groups achieved?

This figure shows first results of the *makingAchange*-effectiveness analysis, which is based on a long term Climate Change Education project. Out of 35 indicators collected, the figure shows three different types of climate-friendly action.



Literature:

1. Rieckmann, Marco (2018): Die Bedeutung von Bildung für nachhaltige Entwicklung für das Erreichen der Sustainable Development Goals (SDGs). In: ZEP 2018 (02), p. 4–10.
2. Rieckmann, Marco (2017): Education for Sustainable Development Goals: learning objectives. UNESCO. 11. May 2022. <https://unesdoc.unesco.org/ark:/48223/pf0000247444>.
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4. Kubisch, Susanne et al. (2021): From Transdisciplinary Research to Transdisciplinary Education—The Role of Schools in Contributing to Community Well-Being and Sustainable Development. In: Sustainability 13 (1), p. 306.
5. Topping et al. (2017): Effective Peer Learning: From Principles to Practical Implementation. New York: Routledge.