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From knowledge to action – can modern and active teaching formats help to bridge the value-action gap among school students and raise their climate-friendly behavior?

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Numerous studies and survey results indicate that the majority of the population is aware of climate change and displays worries about it, but only a few people show willingness to change their behavior accordingly and to act more climate-friendly. The discrepancy between knowledge and action (value - action gap) is seen as an obstacle to successful adaptation to climate change, and is particularly pronounced in the young population group. In addition to the lack of a sound basic knowledge, young people above all lack the believe in their own possibilities and the conviction that their actions are enough to achieve something (“bigger than self-dilemma”).

We initiated a research – education – cooperation project to reach out for school students and tried to motivate them to engage intensively with climate change and to increase their climate-friendly behavior. Modern teaching and learning formats were used in order to contrast to the typical “learning” at school and foster voluntary engagement, to transfer positive messages and solutions, and to emphasize the self - efficacy of their actions. The aim of the project was to examine, whether an active engagement over a prolonged time period with topics around climate change can achieve a greater effect on the understanding of complex relationships and raise climate-friendly behavior more effectively than a short, passive learning phase. With the help of an online questionnaire all involved students answered climate-relevant questions of the categories “behavior, perception and knowledge” before and after the activities.

The questionnaire results revealed that a general knowledge about climate change and climate awareness exist among the students surveyed, even before the project activities. More than 90% believe that every single person can contribute significantly to tackle climate change. However, students had problems with understanding complex relationships and long-term interactions of the consequences of climate change on people and ecosystems. For example, it was difficult for students to correctly estimate virtual water consumption and to see the potential social consequences of climate change.

We believe that modern educational concepts on climate change should foster system understanding and seize on the young people’s positive attitude towards climate protection by

pointing out concrete, climate-friendly ways of behavior. In this way it is possible to strengthen the young people's believe in their actions (self-efficacy) and to reduce the gap between attitude and action.