

Is education the missing stone to tackle global warming?

The issue of global warming increasingly gains more significance. Populations inhabiting the world concern themselves more and more with the question of what the future on this planet might look like over the coming 100 years. Generation Z considers now twice whether they want to set a child into a world in which the future is so uncertain. Almost all people understand at least to some extent that the human race has a great impact on the planet but in what ways global warming arises and the details of how to tackle this issue are often rather blurry. This reflection paper attempts to discover the magnitude of knowledge of possible impacts of global warming over the next 100 years with the help of the responses of three interviewees from different backgrounds.

Starting this paper I would like to reflect on the interviewees' definitions of global warming and their knowledge of how it comes about. All three align in their answers by saying that global warming is “an increase of the average temperature in the world”. Whilst I would agree with this definition I was rather skeptical of the following sentences of how it happens. “The ozone layer is getting thinner and therefore temperatures are increasing.”, is one of the answers I received. The depletion of the ozone layer is however not directly connected to global warming. Instead, it is another environmental issue that is mostly driven by human actions such as burning fossil fuels and deforestation, which finally increases greenhouse gas emissions. The ozone layer is a gas layer in the stratosphere that prevents most of the ultraviolet light produced by the sun from reaching Earth. Thus, the depletion of the ozone layer does not directly increase temperatures but exposes us to UV light which takes impact by causing replications of DNA and thus affects our health but also the reproduction of organisms which can clean the atmosphere from CO<sub>2</sub>.

Another answer was the following: “In school, I learned that it is connected to carbon emissions.”. Although correct, this answer shows visibly the lacking knowledge of the details of the topic. The other interviewees mentioned the burning of fossil fuels, forest fires, decreasing amount of organisms and green plants, and the eruption of volcanoes as drivers of global warming. Here, I must admit that I was impressed by the depth with which some of the interviewees could explain the process of photosynthesis and the greenhouse effect.

My next question targeted the knowledge about the possible impacts of global warming over the next 100 years. The first impact mentioned by all interviewees was the developing scarcity of clean water resources and its possible consequence of global water wars. This was admittedly surprising to me as my first thoughts on this question went to possibly increasing population density due to the enlargement of uninhabitable areas as a result of for example more extreme weather. After reading up on the topic I learned that the scarcity of water is a consequence of several different causes such as increased evaporation and decreasing water levels in hot areas with low precipitation (as warmer air can hold more moisture), more extreme weather (scarcity or abundance of rainfalls causing f.e. avalanches or flooding which can lead to the pollution of water resources), and the melting of glaciers. After my research, I realise, that all of the interviewees answered very briefly the question of why declining freshwater resources might be a consequence of global warming. However, they reflected upon the consequences that might have in terms of decreasing the supply of food and other products produced in agriculture and industry.

Further answers regarding possible impacts of global warming over the next 100 years were rising sea levels, increasing incidents of extreme weather, no possibility to regenerate resources that are currently overused, and climate refugees leading to higher population densities and exposed risk for pandemics to spread. Although all of these answers are reasonable assumptions, I was again missing details to the questions of the exact occurrences of these impacts.

Lastly, I asked my interviewees about their opinion on the significance of education in tackling global warming in the future. They unanimously agreed that education was a very important factor, starting with knowing how to decrease the individual impact on global warming. However, despite pointing out several changes that could be made in one's consumption behavior such as eating vegetarian, using public transport, and shopping second-hand items, at least two of the interviewees admitted that they don't change their behavior in line with their knowledge.

In conclusion, although all three interviewees, including myself, find education to be a relevant factor to tackle the issue of global warming over the next 100 years, all of us are still lacking significant information and details about the come about of it and even about how to

decrease our impacts on global warming. Additionally shocking is the tendency of many people to choose the more convenient option of living their lives, accepting their lack of information, because learning requires time and effort. Instead, they are choosing to disregard a change in consumption behavior because change is simply considered difficult. The question that hopefully also can be an incentive for change is whether the scarcity of knowledge about global warming might also be one problem in stopping it over the next 100 years.