

## **ESERA Early Career Researcher Travel Award 2022 – Recipient Report**

Applicant: Dr. Carola Garrecht

*IPN – Leibniz Institute for Science and Mathematics Education, Kiel, Germany*

Host: Professor Niklas Gericke

*Centre of Science, Mathematics and Engineering Education Research, Karlstad University, Sweden*

To the ESERA President, Board and Early Career Researcher Travel Award Committee,

My research stay at Karlstad University (KAU) was a truly enriching experience both on a professional and a personal level. On a professional level, I had the opportunity to further analyse and interpret our data, to strengthen the cooperation between the research groups, and to learn how educational research is conducted in other countries. The collaborative environment at Karlstad University also allowed me to interact with people outside of the biology department, such as the *RiskLab*, which revealed new perspectives and practical approaches to science education. On a more personal level, staying at Karlstad University deepened my cultural understanding, allowed me to practice my language skills, and supported my personal development. I therefore greatly appreciate the efforts of ESERA and the IPN to support me, as an early career researcher, in establishing contacts with international peers.

My research is centred around enabling students to engage with socioscientific issues (i.e., controversial and science-related problems of great social relevance), which has been described as a central aim of modern science education (Zeidler, 2014). This involves equipping students with the knowledge and skills necessary to make responsible decisions and to take conscious action on pressing social issues such as climate change (see DeBoer, 2000). One example of taking action in the context of climate change is students' participation in the *Fridays-for-Future* movement, a global movement that has already mobilised several million young people through demonstrations demanding stricter climate protection. To date, however, there has been a lack of research examining the various aspects that drive young people with regard to their climate-related engagement, and there is only scattered insight which role science education can play in this regard (see Bhattacharya et al., 2021). The main goal of my stay at Karlstad University was therefore to analyse interviews conducted with young adults in Sweden and in Germany who are actively engaged in such climate-related movements.

Professor Gericke is one of the leading experts on transformative learning in the context of sustainability issues and climate change. His expertise is expressed in numerous and high-profile publications, some of which focus particularly on young people's climate activism. Before visiting Karlstad, we jointly developed an interview guide that was used in both Sweden and Germany to conduct interviews with young adults who are actively involved in climate-related movements. The close interaction on site allowed us to overcome language barriers and further enabled us to interpret the data across national borders.

From the very beginning of my stay, Professor Gericke ensured that I was fully involved in the work of the department. This included, amongst other things, attending department-related events, participating in informal discussion groups, and presenting our work to researchers engaged with the Centre of Science, Mathematics and Engineering Education Research. At all times, I felt entirely integrated into the department.

A heartfelt thank you to ESERA for granting me the ESERA Early Career Researcher Travel Award, to the IPN for supporting me along the way, and to Niklas Gericke as well as his colleagues from Karlstad University for making this outstanding learning opportunity possible.

Kind regards,

Carola Garrecht

Kiel, Germany, 05. August 2022

Cited literature:

- Bhattacharya, D., Carroll Steward, K., & Forbes, C. T. (2021). Empirical research on K-16 climate education: A systematic review of the literature. *Journal of Geoscience Education*, 69(3), 223–247.
- DeBoer, G. E. (2000). Scientific literacy: Another look at its historical and contemporary meanings and its relationship to science education reform. *Journal of Research in Science Teaching*, 37(6), 582–601.
- Zeidler, D. L. (2014). Socioscientific issues as a curriculum emphasis: Theory, research and practice. In N. G. Lederman & S. K. Abell (Eds.), *Handbook of research on science education* (Vol. II, pp. 697–726). Routledge.