

ESERA Early Career Researcher Travel Awards 2023

Report

Applicant: Matthias Fischer, Heidelberg University of Education, Department Physics Education, Germany

Host: Dr. Angela Calabrese Barton, University of Michigan, School of Education, United States

Dear ESERA President, Board and Travel Award Committee,

I would like to thank anyone involved in the Travel Award for making my research trip to Dr. Calabrese Barton at the University of Michigan in Ann Arbor, United States, possible. The Travel Award simplified the preparation and realization of the research stay immensely.

My research deals with the question of how high-quality science education programs for homeless youth should look like. Dr. Calabrese Barton's early research career included research about science education programs for homeless youth. As part of this research, she published several papers. These papers had a strong influence on me early in my doctoral studies, as they are, to my knowledge, the only publications on the topics science education and homeless youth. Consequently, I was very pleased to have the opportunity to work with her on my data.

My trip started with a flight on March 10 in Frankfurt and ended with a return flight on April 23. In total, I was in the United States for almost 7 weeks. Especially the return flight was an unforgettable experience, as I was able to watch auroras for several hours on my window seat. My time in Ann Arbor was also very positive. I was able to meet exciting people inside and outside academia, I got a taste of the culture in the Midwest of the US, and I became part of a new university. In the process, I was well received and mentored by Dr. Calabrese Barton and her team.

The goals for my research visit were as follows:

- I wanted to exchange ideas about my dissertation project and get feedback from her and her team.
- I wanted to collaborate with Dr. Calabrese Barton on a joint paper.
- I wanted to learn more about the topic science education & equity.
- I wanted to learn about her current research projects, which are primarily taking place in out-of-school science learning opportunities.
- I wanted to improve my conceptual framework, as I kept getting feedback that it was not clear enough yet.
- I wanted to learn more about the American higher education system.

After all preparations - housing, visa, flights, insurances, ... - were completed, I landed in Detroit on March 10 and took the bus to Ann Arbor. On site, I was well received by university staff and shown around the School of Education as well as my workplace. During my time in Ann Arbor, I was then allowed to participate in various activities:

- I have started working with Dr. Calabrese Barton on my research data. Our goal is to jointly write a paper that brings together her latest theoretical findings with my data. To that end, we have been meeting regularly in Ann Arbor and making initial decisions. We will continue to collaborate through Zoom and hopefully be able to submit a joint paper later this year.

- I have been able to participate in the science education opportunities that she and her team prepare and deliver at various after-school learning sites. In the process, I also learned how she and her research lab collects and analyzes research data via field notes and interviews.
- I have attended research meetings with Dr. Calabrese Barton's lab, gaining insight into how she and her group design, organize, and advance their daily research routine.
- I attended a seminar by Dr. Elizabeth Davis on Equity and Science Education for graduate students. This involved reviewing and discussing papers on various areas of education – e.g., pedagogy, policies, teacher education. For me, this seminar was particularly exciting because there are no seminars specifically designed for graduate students in Germany in which new content is taught and discussed. In addition, I was able to get to know more about equity in science education in this seminar.
- I was able to meet with a professor who offers a seminar on scientific writing. We discussed my conceptual framework, and we clarified some aspects.
- I participated in various workshops at the University of Michigan. This way, I was able to deepen my knowledge of youth-engaged educational research and climate education, among other things.

Furthermore, during my time in Ann Arbor, I was able to meet various PhD students, talk to them about their research projects and life as a PhD student in the US. Another highlight was the opportunity to meet with a professor who studied and finished his PhD in Germany before taking a position as a professor at the University of Michigan. Over lunch, he explained the differences between the two university systems, illustrating, for example, how the professorial profession differs in Germany and the US.

In summary, I can say whole heartedly that I had a valuable and coining time at the University of Michigan. I am excited to see what will come from further collaborative work with Dr. Calabrese Barton and what role the new contacts I have made will play in the future. I look forward to deepening these connections, for example at ESERA or NARST conferences.

Best regards,

A handwritten signature in black ink, appearing to read 'Matthias Fischer', written in a cursive style.

Matthias Fischer

PhD-student

Heidelberg University of Education, Germany