

ESERA Early Career Researcher Travel Awards 2022

– Report –

Applicant: Dr. Markus Sebastian Feser, Universität Hamburg, Faculty of Education, Germany

Host Supervisor: Prof. Dr. Ingrid Krumphals, University College of Teacher Education Styria, Institute for Secondary Teacher Education, Graz, Austria

Dear ESERA President, Board and Travel Award Committee,

First of all, many thanks again for approving my application for the ESERA Early Career Researcher Travel Awards 2022. The award allowed me to visit the Institute for Secondary Teacher Education at the University College of Teacher Education Styria in Graz (Austria) and the Department of Physics Education at the University of Graz. I spent one week (18 – 24 July 2022) working with Prof. Dr. Ingrid Krumphals (University College of Teacher Education Styria) and Prof. Dr. Claudia Haagen-Schützenhöfer (University of Graz) on our current joint research projects (see below). In this regard, I will provide a brief chronological summary in the following paragraphs:

Monday: Arrival to Graz via plane and regional train. Although my flight was delayed, I arrived in Graz on time so that I could meet Ingrid for dinner in a typical Styrian restaurant and clarify some last organizational details with her.

Tuesday: Ingrid and I used the whole day to analyse qualitative video data from our joint research project. In this project, we developed and evaluated a learning program for undergraduate physics teachers at the University College of Teacher Education Styria (Austria). The program aims at fostering per-service teachers' competencies to diagnose students' conceptions not covered in physics education textbooks. Since coping with the diagnostic process is particularly demanding for preservice physics teachers, our accompanying research aims to identify learning barriers within our developed learning program.¹

Wednesday: On Wednesday I visited Prof. Dr. Claudia Haagen-Schützenhöfer and her working group at the University of Graz. In particular, Claudia and I used the day for a joint coding of an interview transcript, which

¹ For more details on our joint research project see:

Feser, M. S., & Krumphals, I. (2022). Preparing Pre-Service Physics Teachers to Diagnose Students' Conceptions Not Covered by Physics Education Textbooks. *The Physics Educator*, 04(02), Article 2250008. <https://doi.org/10.1142/S2661339522500081>

we are currently analysing within a case study. In this case study we aim to reconstruct a Namibian science teacher's beliefs about the role of language and multilingualism in the science classroom. During our interview analysis we made substantial progress, encouraging us to complete and publish this case study in a peer-reviewed journal in the near future.

Thursday and Friday: On Thursday and Friday I spent the whole day at the University College of Teacher Education Styria. On the one hand, Ingrid and I continued our analysis work from Tuesday, planned our next publication steps jointly and specified the planning of the follow-up study to our current project (funded by the University College of Teacher Education Styria), which will start in the upcoming winter semester. On the other hand, Ingrid gave me the opportunity to get to know the University College of Teacher Education Styria better by introducing me personally to her colleagues and the rectorate, by showing me around the campus (including the facilities for science teacher education), and especially by allowing me to job shadow her in her daily work as a recently appointed professor.

Saturday: On Saturday – effectively the last day of my visit to Graz – I took the opportunity to explore the city on foot and to visit a number of local museums.

Sunday: Return to Hamburg by morning arriving on time in the afternoon.

In summary, I can say that I am incredibly grateful for being able to undertake a research trip to Graz. This stay allowed me to substantially elaborate and further develop joint research projects together with my two colleagues from the University College of Teacher Education Styria in Graz and the University of Graz and to become more familiar with university-based science teacher education in Austria. I look forward to building on this experience in my future professional work. Many thanks to ESERA from providing me with this opportunity!

Best regards,



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