

ESERA Early Career Researcher Travel Award 2022–Recipient Report

Applicant: Song Xue, Division of Education and Society, School of Humanities, Social sciences and Law, The University of Dundee, UK

Host: Prof Moritz Krell, Leibniz Institute for Science and Mathematics Education (IPN) in Kiel, Germany

Visit dates: 25th April to 15th May 2022

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

It was a great honour to receive a travel award which allowed me to visit Prof. Moritz Krell in IPN. During this four-week visit, I spent a great time in Kiel where there were many constructive discussions with Prof. Krell about related interests and impressive interactions with IPN colleagues. The experience during this travel has enriched my PhD journey and inspired me to deepen my understanding of models and modelling.

I would like to thank Prof Moritz Krell for supporting me in the IPN visit. IPN has strong STEM professions and research groups that are developing fundamental research questions concerning the teaching and learning of sciences and mathematics. Moreover, Prof Moritz Krell had very aligned research interests with me about models and modelling in science education. Many of his publications were cited in my doctoral dissertation, such as instruments for modelling competence and the black box approach. I had weekly meetings with Prof. Krell for discussing my doctoral chapters. Prof. Moritz is a very professional and friendly scholar who not only gave me useful advice on my research but also introduced me to other colleagues and invited me to the research group's social events.

The main goal for my visit to IPN is to learn more about the research area and methodology of modelling competence and gain new skills. Prof Krell's team has developed and validated instruments for assessing modelling competence. He has sophisticated experience in analyzing different kinds of data including both quantitative analysis and qualitative analysis. By discussing my project and preliminary research results, it was beneficial to receive a source of useful feedback, valuable new research ideas, and insights into different methodological approaches. In addition, IPN offers a graduate (PhD) program that includes regular meetings, lectures/ seminars, and workshops, as well as informal networks of PhD students. I also benefit from exchanging ideas with the other PhD students in this network at IPN. I built a long-term collaboration with Prof. Krell. The two joint publications and international collaborations were in the progress.

I had a fantastic time in Kiel. As an early career researcher, this award was an inspiring and extremely valuable opportunity both professionally and personally that I will always appreciate. Once again, I want to express my gratitude to the ESERA, Prof. Moritz Krell and IPN for supporting my visit.

Best regards,

Song Xue

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