

ESERA ECR Travel Grant 2025 – Report

Early Career Researcher: Inés Martínez Pena

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Host: Prof. Rui Marques Vieira

Department of Education and Psychology, University of Aveiro (UA), Portugal.

Visit dates: 1st July to 31st of July 2025, and 8th September to 8th November 2025 (3 months).

To the ESERA President's Travel Award Committee, Board of Directors, and Early Career Researcher Travel Award Committee,

My research is focused on analyzing the secondary students' performance on systems thinking (ST) and critical thinking (CT) using the 'One Health' (OH) approach in health controversies. The first two years of my PhD project were mainly focused on studying how ST can be fostered in secondary education students during the learning of complex health issues. This research stay was done at a perfect moment within my PhD project, right after starting to draft a competence framework for CT, as a starting point to research about how CT can be fostered during science education by using complex health issues addressed from the OH approach. For this purpose, I had the privilege to visit Dr. Rui M. Vieira, from the University of Aveiro (UA), who provided highly insightful discussions about CT and enormously enriched my PhD project.

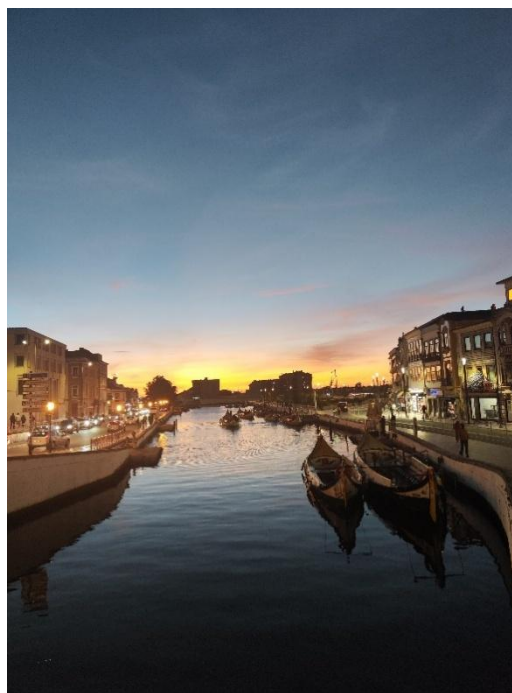


Views of the Campus (UA), from the office.

Dr. Rui M. Vieira has a long professional experience on CT and the competences that CT entails, and he has developed several theoretical frameworks on CT that helps orienting both teaching and research practises on CT. During my stay, I had

the chance to present my work and the current status of my PhD project to Dr. Rui M. Vieira, who provided a very valuable feedback during our discussions about CT, that help me to develop a solid foundation and understanding of CT, and also inspired future lines of research. As a result of this work and discussions, a proposal of oral communication has been submitted to the Eridob 15th Conference 2026.

Besides, he is the president of the Ibero-American Association on Science-Technology-Society in Science Education (*Associação Ibero-Americana CTS na Educação em Ciências*, or AIA-CTS), which will give me the chance to build professional connections with the Ibero-American community of teachers and researches on Science Education, providing an additional enrichment to my PhD experience. At a personal level, Dr. Rui M. Vieira made me feel very wellcomed and he was always making sure I was feeling like being at home.



Main canal in the center of Aveiro.

During my stay, I also had the opportunity to meet other PhD students from different nationalities in different stages of development of their projects. Having formal and informal talks with other peers who are living similar experiences during their PhD journey made my stay very pleasant, since I felt understood,



Lunch with my PhD fellow colleagues at the beginning of the stay and the school year.

supported and warmly wellcomed into the team. Together, we not only shared professional experiences but also exchanged personal experiences, and learned a lot about each others' cultures, which enriched a lot my experience at a professional and personal level, helping me grow in a wider sense.



Images of my 'good-bye' party with my PhD fellow colleagues before finishing my stay in Aveiro.

Finally, I would like to thank Dr. Rui and all the fellow colleagues for their support, their kindness and their generosity. I have a great memory from this stay, in which I learned a lot in all perspectives, it was an amazing experience!

I would also like to thank ESERA for supporting this international stay and making it possible.

Kind regards,

Inés Martínez Pena