

# ESERA EARLY CAREER RESEARCHER TRAVEL AWARD 2025 – REPORT

Early Career Researcher: Dr. Argyris Nipyrakis  
University of Crete, Greece

Host Researcher: Prof. Maria Varelas  
University of Illinois Chicago, United States of America

Visit dates: 15-23 November 2025

Dear ESERA President’s Travel Award Committee, Board of Directors, and Early Career Researcher Travel Award Committee,

Through this letter, I would like to express my profound and sincere gratitude to both the European Science Education Research Association (ESERA) and to Prof. Maria Varelas for providing me with the opportunity to conduct a research visit to Prof. Maria Varelas’ department at the University of Illinois Chicago (UIC).

Currently, I am conducting postdoctoral research at the University of Crete, supervised by Prof. Dimitris Stavrou. My research is focused on teacher education focusing on interdisciplinary arts-based approaches to science education, and specifically integrating theatre, story writing, and poetry in pre-service teacher education. This research extends my previous PhD research on examining teachers’ views and design practices in STEM education and interdisciplinarity through collaborative S-T-E-M learning community contexts.

What motivated me to apply for this specific ESERA travel award opportunity is that Prof. Maria Varelas is a highly impactful scholar in the field of science education and a true pioneer in arts-based approaches in science education, with decades of experience in the specific domain of my postdoctoral research. This impression does not come solely from studying her distinguished and influential published research in leading academic journals in science education, but also from our previous collaborative work in research studies in pre-service teacher education contexts and in collaborative conference papers in international and national conferences in the past two years, including the last ESERA conference. Hence, this ESERA travel award provided me with the opportunity to collaborate closely with her on common scholarly areas, as delineated in the following section.

The ESERA travel award also allowed me to reconnect with or be introduced to renowned scholars in Prof. Maria Varelas’ network—literacy and language education scholars and teacher educators Prof. Rebecca Woodard and Prof. Nathan Phillips, theatre and movement scholar Prof. Rachelle Tsachor, science education scholar Prof. Mindy Chappell at the University of Illinois Urbana-Champaign, and science education doctoral candidate Ronan Rock at UIC—and discuss our work and common research domains and interests. Hence, this ESERA travel award programme allowed me to connect with science education research communities overseas and strengthen research collaborations with scholars from science education research communities affiliated to ESERA, such as NARST. Moreover, it gave me the opportunity to experience undergraduate courses, teach students, and learn about the infrastructure of UIC’s Department of Curriculum and Instruction.



During my stay, the following research activities took place:

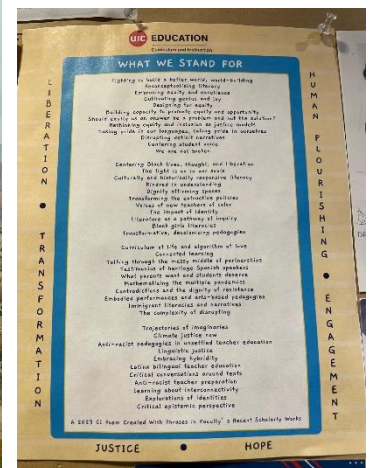
First, an intensive series of collaborative working sessions with Prof. Maria Varelas on a daily basis. Specifically, we worked on extending our preliminary work in integrating poetry in science education (i.e., Nipyrakis, A., & Varelas, M. (2025, April). *Composing madinathes for science teaching by pre-service teachers: Poetry for braiding meanings and emotions*. Presentation at the 14<sup>th</sup> Greek National Conference of Science and Technology Education, Thessaloniki, Greece.) into a full manuscript for an international audience. We worked on brainstorming ideas, analysing data, and writing and revising the article. We also worked on planning further research based on a study integrating story writing in science education (Nipyrakis, A. (2025). *Inquiry Fairytales: Pre-service Teachers Integrating Science and Scientific Inquiry in Fairytale-like Stories for Science Teaching*. In A. Nipyrakis & M. Chappell (Chairs), *Navigating the Praxis of Fiction & Non-fiction for Engaging with Science Through Storying* Symposium at the European Science Education Research Association (ESERA) Conference, Copenhagen, Denmark.) which was presented in a session where Prof. Maria Varelas participated as the discussant. Moreover, we worked on updates and implementation ideas for a NARST 2026 symposium paper focused on integrating theatre in science education (Nipyrakis, A. (2026). 'Science Improv' for Preservice Teacher Preparation: Overcoming Challenges and Fears in Science through Theatre. In M. Chappell (Chair), *Justice-Centered and Arts-Based Science Teaching and Learning Across Spaces & Places* Symposium at the NARST: A Global Organization for Improving Science Education Through Research Conference, Seattle Washington, USA) to be presented at a session where Prof. Maria Varelas will also be the discussant. Overall, Prof. Varelas' support and input in all the aforementioned three cases were invaluable in terms of both creating spaces for critical reflection and insightful analysis, and of providing her expert knowledge and ideas on how to effectively integrate art forms in science education research and practice.

Second, I was provided with the opportunity to disseminate my research work through a workshop entitled *Integrating Arts in STEM: Initiatives and Examples of Implementation* that I led in three undergraduate teacher education classes taught by Prof. Rebecca Woodard and Prof. Nathan Phillips with whom I discussed the educational significance and relevance of arts-based initiatives.

Third, I participated in generative and inspiring discussions with Prof. Rachel Tsachor and learned from her expertise in movement and theatre, along with training teaching artists, and how she supports teachers to think about body movement with their students. She also showed me UIC's theater spaces.

Fourth, we discussed with Prof. Maria Varelas ideas on planning and carrying out virtual seminars and dissemination activities in the context of our science education research associations and with the participation of international scholars.

Last, but not least, I was introduced to Prof. Nikos Varelas, Senior Vice Provost at the University of Illinois Chicago, and a distinguished researcher in experimental high-energy particle physics, with a substantial record of scholarly work, including being a team member in the discovery of the Higgs boson in 2012 at CERN. He offered me a tour of the University Hall building and an overview of UIC's key operational structures, while also discussing the conditions and the context of tertiary education and research in Greece.



All the aforementioned activities were carried out within an academically rigorous and friendly setting, including coffee breaks and meals at the magnificent UIC neighborhood.

In closing, this travel award has been a significant and enjoyable research experience that couldn't be possible without the support provided by ESERA. Having followed and participated in ESERA since the beginning of my studies in science education research and considering it my academic home, I highly recommend to students and early career researchers to engage with the ESERA research activities and to apply for this travel award. Such initiatives make the research communities around the world more interconnected, empowering more collaboration towards reaching our common goals to improve science education for all.

Sincerely,

Argyris Nipyraakis

December 2025