

### Strengthening Teaching Competences in Higher Education in Natural and Mathematical Sciences





# REPORT ABOUT THE IMPACT OF TECOMP PROJECT on THE UNIVERSITY OF OVIEDO AND DISSEMINATION AND POPULARISATION ACTIVITES

This report is related to activities 6.3 (DISSEMINATING REPORTS ON THE PROJECT ACHIEVEMENTES).

The impact of the TeComp project on the University of Oviedo can be measure from three different points of view:

### Impact of the training activities

The training activities developed by the University of Oviedo have been bidirectionally enriching. On the one hand, the Serbian and Albanian universities have taken advantage of technologically innovative solutions tested and implemented by diverse teaching groups from the University of Oviedo. On the other hand, for the University of Oviedo it has been very interesting to know the state of development of these technologies in the partner universities as well as to contribute to overcome some of the existing obstacles in these HEIs.

By means of these five trainings (held in March 2019, September 2020, December 2021, March 2022, and September 2022) we had the opportunity to share experiences and discuss different methodologies based on technological resources for teaching mathematics, sciences, and computer science in Higher Education. Innovative approaches to overcome the problems of the different topics, and to deal with the diversity of the university students in this moment were exposed, as well as their advantages and obstacles were addressed and discussed.

We could confirm that even when the situation in Spain, Serbia, and Albania is different, there are many coincident factors as the diversity among the students, the change in the motivation, the massive use of technology not only as a catalyzer but also a modifier of the learning processes, etc. We think that exchanging ideas and sharing experiences have been very positive for all the participants.



## Strengthening Teaching Competences in Higher Education in Natural and Mathematical Sciences





### Impact of the dissemination activities

Dissemination has been undertaken basically by means of scientific conferences in which results linked to TeComp project were presented. Particularly, we have focused on the work with videoclips as an instructional tool. The conferences are the following:

- Aguilar-González, Á., Lorenzo-Fernández, E., y Muñiz-Rodríguez, L. (2021). Mathsumers: Creadores y consumidores de vídeos educativos sobre matemáticas. [Mathsumers: Creators and Consumers of Educational Videos on Mathematics]. VI International Conference on Communication and Thought. The revolution of the prosumers: youtubers and instagramers.
- Rodríguez-Muñiz, L.J., Alonso-Castaño, M., y Muñiz-Rodríguez, L. (2021). Vídeos educativos como instrumento para desarrollar el conocimiento especializado del profesorado de matemáticas. [Educational videos as a tool to develop the specialized knowledge of mathematics teachers]. I International Conference on Digital Transformation in Learning Environments (CITEA).
- Muñiz-Rodríguez, L., Lorenzo-Fernández, E., y Aguilar-González, Á. (2021). Mejora de la
  motivación hacia la didáctica de la matemática y desarrollo de la competencia docente de
  los estudiantes para maestro a partir de una experiencia de m-learning. [Improvement of the
  motivation towards the didactics of mathematics and development of the teaching
  competence of the students for teacher from an experience of m-learning]. VII Congress of
  Educational Innovation and Online Teaching (IN-RED 2021).
- Rodríguez-Muñiz, L.J., Muñiz-Rodríguez, L., Aguilar-González, Á., Alonso Castaño, M., Lombardero Ozores, A., y Lorenzo Fernández, E. (2022). Uso y elaboración de vídeos educativos para la enseñanza online. [Use and development of educational videos for online teaching]. XIV International Conference on Teaching Innovation: Advances and challenges for educational transformation.

#### Impact of the popularisation activities

Seven popularization presentations were addressed to both students and teachers in several Faculties of the University of Oviedo in March and September 2022. It was the opportunity to present the results of the project to the community and to encourage other groups from the university to cooperate in future Erasmus+ projects.