

SP - (16281) - IMPROVING STUDENTS' UNDERSTANDING OF ECOLOGICAL FOOTPRINT WITHIN THE CONTEXT OF EVERYDAY LIFE

Georgios Malandrakis (Greece)¹; Athanasia Papadopoulou (Greece)¹; Sara Moreno Pires (Portugal)²; Federico Maria Pulselli (Italy)³; Nicoletta Patrizi (Italy)³; Sandra Caeiro (Portugal)⁴; Paula Bacelar-Nikolau (Portugal)⁴; Alessandro Galli (United States of America)⁵; Nikolaos Theodosiou (Greece)¹; Dimitrios Zachos (Greece)¹; Mahsa Mapar (Portugal)⁴; Mariana Nicolau (Portugal)²

1 - Aristotle University of Thessaloniki; 2 - University of Aveiro; 3 - University of Siena; 4 - University of Alberta; 5 - Global Footprint Network

Short Abstract

Higher Education Institutions can play a major role in turning societies to sustainability, but such initiatives still need to be enhanced and developed. Towards this effort, a 3-year ERASMUS+ project was organized across four European Universities and an international Non-Governmental Organization. The project has two main goals: (i) the development of educational materials for the universities' community (students, educators, staff) regarding the teaching of sustainability through the Ecological Footprint (EF), and (ii) the development of an EF online calculator for Universities. This study aims to assess the learning effect of the developed educational materials on 22 master students from two of the four universities involved in the project: University of Aveiro (UA, Portugal), and Aristotle University of Thessaloniki (AUTH, Greece). The module lasted 12 teaching hours and was delivered face-to-face to UA students (n=13) and, due to COVID-19 restriction measures, via a synchronous, distance learning mode to AUTH students (n=9). The Ecological Footprint Diagnostic Instrument (EFDI) tool was used with students a week prior to the teaching and a week after, to assess their understanding of the EF concept by covering 3 tiers: i) Content, ii) Reasoning, and iii) Confidence. Results showed an increase in all mean scores for both groups of students. Differences between pre- and post-teaching results were statistically significant in both universities for the Content tier, in UA for the Reasoning tier and in AUTH for the Confidence tier. Taking into consideration the combined Content and Reasoning tiers, no significant differences were recorded neither for UA nor for AUTH, while for the combined three tiers (Content, Reasoning and Confidence), only AUTH students presented significant improvement. The different academic backgrounds of the participating students could be a possible explanation of the differences observed among the two groups; the relatively small number of participants may also affect results.