Combining mobile technologies in environmental education: a Greek case study

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* Learning
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## Sample

The sample consisted of 50 students, 20 boys and 30 girls, who were attending the first class of a provincial Lyceum on the island of Crete, Greece. The average age of students was 16.2 years.

## Implications For Educators About

STEM Education

# Abstract

In recent years, due to the widespread use of Information and Communication Technologies (ICTs) various technological tools and services have found application in education. The education community has recognised that mobile devices and their applications can be used for environmental education as well as in education for sustainable development. Quick Response (QR) codes are an example as they successfully integrate mobile learning technology in Environmental Education. When attached to an object, the QR codes add a layer of digital functionality that transforms and expands the way users of mobile devices access the information without temporal–spatial restrictions. In the present study, we present a didactic approach that was implemented by High School teachers in the field of Environmental Education using mobile devices and QR codes.

# Outcome

Despite the small sample size used in this study the results seem to confirm the conclusions reached by a number of different studies that QR codes and mobile technology, in general, are becoming a popular and useful tool in modern education (Susono and Shimomura, 2006; Ramsden, 2008; Ceipidor et al., 2009; Crompton, 2013; Lai et al., 2013; Lai and Hwang, 2014). The use of mobile technology in Environmental Education guides students to learn in real-world environments in natural science courses. (Kalogiannakis Papadakis 2017: 125)

In conclusion, based on the implementation of this new (for Greece) form of ICT and the use of appropriate educational activities, students in the experimental group (Plakitsi, 2010; Katsenou et al., 2013; Kadji-Beltran et al., 2014) were able to more efficiently:
• Experiment and explore,
• Seek and find knowledge,
• Learn to work cooperatively, to be methodical, to take initiatives, to set goals, to argue, to think and speak freely,
• Cultivate their initial talents and aptitudes, interests, and
• Be instilled with a lifelong love of learning. (Kalogiannakis and Papadakis 2017:125-6)