



# Modernization of Merchant Marine Education – Captain's Division

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## Abstract

The purpose of the project was the acquisition of technological equipment and services, educational-software programs, appropriate training and familiarization of teachers to fully implement these means in teaching, and therefore to adopt a student-centered model by following a pleasant and interesting path resulting in the reaping of knowledge. Our long-history merchant marine school managed to transform into a modern technological school to bridge all participating members with the shipping market standards. The school began to form a local multipurpose center, a hotbed of knowledge and culture allowing the local community to get involved and be active.

### Keywords:

Modernization of education; student-centered model; digital training transformation; innovative merchant marine education; merchant ship simulations

## Description

The anticipated difficulties in the processing of the project which we overcame were about the support means and resources, application in the classroom and new teachers' role as a mediator instead of a knowledge transmitter. Children expressed preference in technological advancement comparing to the classic methods of learning, came through various technological concepts which they constitute a pedagogical dimension and an educational innovation to develop a variety of skills such as collaboration, communication and problem-solving skills; augmented reality, simulation and 3D printing

Age group of students: 15-25  
Number of students involved: 33  
Number of teachers involved: 7

## Feel

Teachers and students worked on finding solutions to local problems/needs, but also challenges/trends in new areas of maritime education. Ithaki is an island with tradition in seamanship. The merchant marine department of the school fills in a gap created by the absence of a captain's school on the island. So our aim was to focus on the society getting to know the maritime professions, the Captain's profession and the modern trends in education.

## Imagine

Our venture aims to bring the community to the school and to our potential. In this context of approaching society, we envisioned what merchant marine education would be like in the new era, so that we could approach the local community and proceed with presenting shipping through our modern perspective. This approach should be attractive and with easy-to-use technological means, in order to achieve social acceptance through knowledge.

## Create

Educators and students worked together to create an original and user-friendly, modern project even for people with minimal technological knowledge.

Thus, the following projects were implemented in order to provide a modern educational, interactive, simplified and user-friendly learning material;

Augmented reality learning modules were created for this purpose using augmented reality glasses, 3D parts were printed to scale with a 3D printer and ship bridge handling simulations were carried out with the help of a special simulator. In this way, a better assimilation of the material is achieved, an increase in the acquired knowledge and consolidation of the new knowledge by a larger number of students.

These results are presented to the local community, so that they get to know the abilities and perspectives of the school and contribute to the support and further development of the project.



## Share

The participants in the project, teachers and students, within the framework of the open school in the society, the dissemination of the school's achievements is sought.

It is planned to organize days of presentation of the capabilities of the newly acquired technological products and to introduce them to the world of seafaring.

Local schools and other organizations will participate in a day of events and demonstrations, where those who wish will have the opportunity to use the equipment under the guidance of our school teachers or students.

Also, the local media can be invited to such an evening to communicate the school's actions to the wider community and for the school to be an attraction for new students, but also ideas for acquiring additional capabilities.

## Link on the portal

<https://www.schoolofthefuture.eu/el/osos/osos-project/3d-ektypotis>

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