

Co-funded by the Erasmus+ Programme of the European Union



INSTITUTO DE EDUCACIÓN SECUNDARIA "MIGUEL ESPINOSA" Murcia, Spain

Piloting experience

Our Daylighting Rivers Experience

To begin with, we must point out that the fact that our school became part of the project was something unexpected. It arose from a proposal that was put forward to us when the rest of the partners were already enrolled in the project. We had long wanted to get involved in a European project that could broaden the perspectives of teachers and students on issues related to science and technology. For us, from the very beginning, it was an exciting challenge and we decided to take part on it with enthusiasm and desire to learn. The decision had to be made quickly, only in a few hours, as the project was about to be submitted for approval.

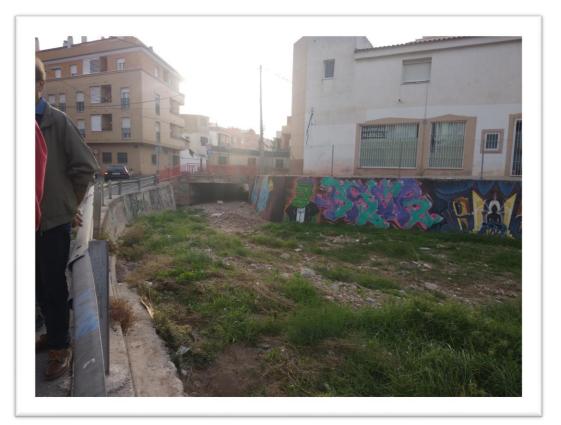
The first challenge we had to face was to locate our points of interest within the general aims of project.



The reality of covered rivers does not exist in Murcia as such, but we do have a very complex fluvial infrastructure, which involves the diversion of river waters through a sophisticated system of irrigation and draining channels that irrigate the entire plain of the Segura River and have turned our croplands into fertile orchards, whose origin dates back to the Roman occupation and its main development occurred during the Arab period.



This system gives the city a unique character from a historical, economic and environmental point of view. In recent decades, the city of Murcia has seen pollution take over the river, due to uncontrolled industrial discharges. At the same time, the network of channels was partially covered for economic and urban reasons that caused significant losses in our historical and environmental heritage.





Added to all this is the fact that urban planning has meant that ephemeral or intermittent watercourse areas were occupied by buildings and other elements that impede the free circulation of water in events of torrential rains, which usually take place in autumn. The consequences have been, on many occasions, catastrophic. One of these events took place in September 2019, so the students had the opportunity to have a first-hand experience on many issues that had been developed in the didactic units they worked in class and in the activities in which they took part outdoors.

The discovery of all these realities and the awareness of the need to carry out actions to preserve our cultural and natural heritage has been very important for our students.

We have worked on several aspects related to different subjects such as chemistry, biology, geography, history and technology.

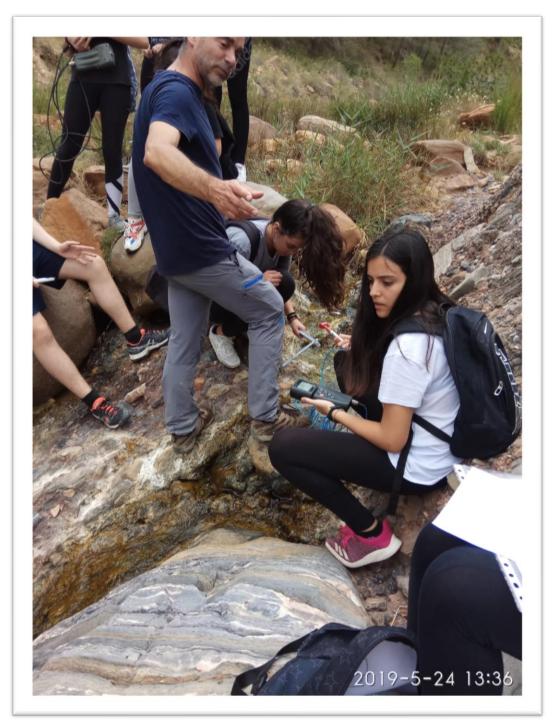
Learning how to work using IBL methodology has meant that our students, who must develop an original research project as part of their school curriculum, have improved their scientific research skills.

During the first phase of the project, the identification of the skills and competences of the students, as well as the development of the IBL methodology, preparation of the didactic modules and their application and evaluation, we believe we have been up to par.



The students really enjoyed the outdoor activities, the discovery of a new way of studying, the value of teamwork and, above all, the possibility of coming into contact with a reality which, despite being very close to them, still remained quite unknown and far from their everyday interests and worries.

I mean, our river and everything that has to do with in water management from different historical, economic, environmental and social points of view. In this sense, our students, who belong to a specialized program, closely related to scientific research (both in experimental sciences and social sciences) have received a set of learnings that, without a doubt, have opened their eyes to new realities, learning styles and prospects for their academic and professional future.



From this moment, the difficulties began for us, since for our curriculum and our teachers, the objective related to the use of technological tools based on Geographic Information Systems and Location Based Games was far beyond our reach. The strict requirements of our educational system and the limited availability of students and teachers made it impossible to acquire the necessary skills to fully involve ourselves in this part of the project. On the other hand, it seems that this circumstance is common to other schools in Spain because, after the announcement of the European competition, many of them requested information, but no one finally participated in it.

Despite the extension of the deadlines to take part in the contest, unfortunately, we could not get it. The online teaching situation brought on by the pandemic finally dashed our last hopes of becoming part of this exciting final phase.

For all these reasons, the evaluation that we make from IES Miguel Espinosa of our experience in the project can be considered bittersweet.



<u>https://drive.google.com/file/d/1zIjlQvPAOOoivIyj8U0ahjyNcKA</u> <u>rvtux/view?usp=sharing</u>

On the one hand, we have been able to improve the scientific skills of our students, we have stimulated their curiosity, they have worked in a practical way to learn about aspects related to their culture and the environment of their region. On the other hand, we feel that in other circumstances or conditions we could have achieved many other goals in the same way as our partner schools in Greece and Italy have made.

We want to thank the organization for the opportunity it gave us to participate in a project of this nature for the first time and I would also like to congratulate everyone for having been able to complete such an attractive and rewarding project.

