SCHOOL CASE STUDY

Agrupamento de Escolas de Vila Nova da Barquinha

School name	Agrupamento de Escolas de Vila Nova da Barquinha
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City and country	Vila Nova da Barquinha – Barquinha, Portugal
Website	https://escolasbarquinha.pt/
Age of students	12-18
Number of staff	80
Area of focus	STEAM education, Robotics

This school case study is part of Output 4 by the Novigado project
"Guidelines in Learning Space Innovations", available at the project website.

Background, Context and Drivers to change

The Schools Cluster has a Pedagogical Innovation Plan (PIP), based on the pillars of Citizenship, Inclusion and Quality.

The educational dynamics are in line with optimizing the methodology based on project work, with a focus on inter and transdisciplinary work, focusing on the development of skills inherent to the students' profile when leaving compulsory education.

Flexible/innovative learning environment

Some spaces were modified, namely the **Innovative Educational Environments Room**, which was equipped with tablets, individual tables and chairs and a huge interactive television, where it is possible to print in 3D and film with quality, in terms of multimedia and sound.

We want to give a strong focus to the dynamics underlying the **Programming and Robotics Club**, integrating these students of various age groups. As a matter of fact, the work developed in terms of articulation with different levels of education and teaching - the importance of horizontal and vertical articulation, in a clear allusion to the flexibility contained in our law and educational orientation by the Ministry of Education. The educational teams play a fundamental role in this curricular flexibility.

The Innovative Educational Environments Room is also a privileged space for sharing knowledge, namely with regard to the Erasmus+ Project and with regard to articulation with various European schools, with different knowledge, obviously enhancing the teaching processes and of learning.

Student-centered pedagogy

Educational dynamics enhance new operative dynamics in teaching and learning processes. There is an urgent need for awareness, research and close articulation between all educational agents, enhancing and making the educational processes profitable. The Cluster must continue to be audacious, thinking "outside the box", in the sense of modernizing educational "cultures". The path is made step by step. We are aware that not all of us have the same capacity to innovate, in the sense of enhancing learning with and with quality. However, we believe that over the past four years we have done a lot to achieve educational success!

> *"I love doing new and different things. Trying hands on activities, I feel so productive, watching things move, it's great!"*
> Tomas C., Robotics student

Use of technology

It must be recognized that it is a challenge to reconcile the goal of a school with and for everyone, plural and diverse. Its implementation implies that the school changes its operating model based on the reproduction of information to a model based on the construction of knowledge, open to social and cultural contexts, to the diversity of students and their interests. The nature of ICT provides for the creation of an educational environment favorable to curriculum flexibility. In this context, we have at the disposal of the classes two computer rooms and several tablets that can be requested.

With the implementation of the PIP, we created a new discipline: Project for All, in the different classes of basic education and with the involvement of different areas of knowledge, we intend to contribute to the integral training of students, giving them a proactive role in the construction of learning and in the dissemination to the community of the final product of their work, in which ICT plays a fundamental role.

We started this school year, the integration of ICT in primary (3rd and 4th years), which shows excellent results and a notable evolution in the students. In the robotics club, students develop projects that cross knowledge of technology with that of the arts, always from an educational perspective and naturally developing other skills in the ICT areas. We have ICT teachers develop various methodologies depending on the available room.

> *"The school is very well equipped. Teachers like dynamics and innovative practices."*
> Claudia Garcia, Professional Courses Coordinator

Impact

Benefits

- Student at the center of educational processes
- Focus on the pedagogical assessment of students
- Promotion of areas underlying the principles of Citizenship, Europe and Inclusion.

Challenges

- Articulation between two or more curricula – fostering the sharing of practices
- Internal and External Training
- Creation of New Forms of Internal Communication
- Fostering New Dynamics/New Challenges for Teachers, regarding their daily practices

Other impact

The School Community should be fully involved in the process, generating new dynamics in the way of thinking and feeling this curricular flexibility.

"My son comes and goes to school happy. I love this cluster."
Sonia Filipa Martins Santos, Parent

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