

Good practices in Flexible Learning Spaces in Portugal: what has been done in spaces in pandemic times?

Sci&Math Creative Lab

Innovative Learning Environments in Teacher Education

Marisa Correia

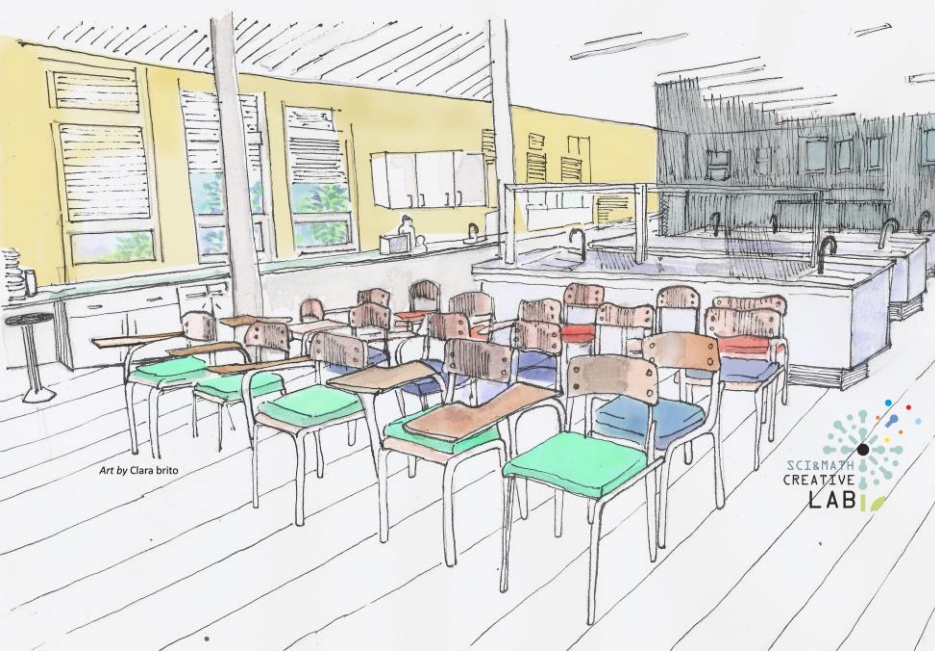
Polytechnic Institute of Santarém | School of Education of Santarém

INNOVATIVE LEARNING ENVIRONMENTS





- **INTERDISCIPLINARY LEARNING ACTIVITIES**
- **CO-TEACHING**
- **INNOVATIVE LEARNING ENVIRONMENTS**
- **INQUIRY, PROBLEM & PROJECT-BASED LEARNING**
- **CODING AND ROBOTICS**
- **7E LEARNING CYCLE MODEL**
- **STEM (SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS) EDUCATION**
- **OER – OPEN EDUCATIONAL RESOURCES**



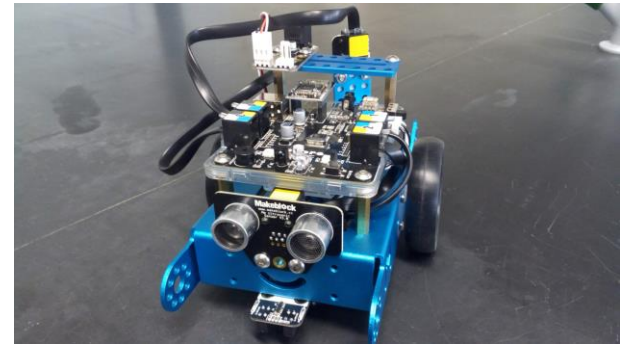
Project Results

- PTs are **globally satisfied** with the hardware, software, natural light and acoustics of the ILE CreativeLab_Sci&Math and they attribute the major impact on they performance to visibility, natural light and acoustics of the ILE.
- PTs are **very satisfied** with the ILE layout for interaction and collaboration with others.
- A **technologically enhanced environment, with good natural light, acoustics, comfortable furniture and a larger space** could have a **positive impact on students' satisfaction about the pedagogical space they are using and in their performance.**



Project Results

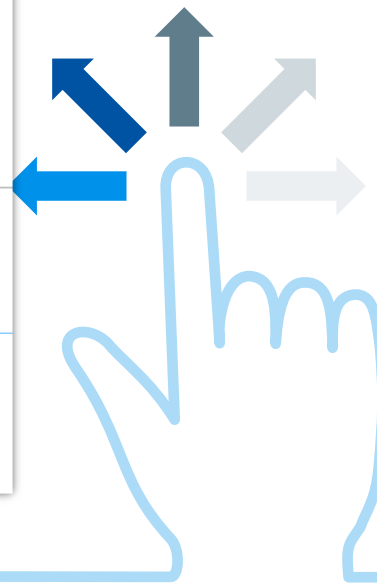
- ◎ PTs attributed to the ILE a positive impact in their **pedagogical content knowledge**.
- ◎ Increases PTs' **motivation** and **engagement** and **understanding of mathematical and science concepts**.
- ◎ Promotes **collaboration between students**.
- ◎ Develops **computational thinking**.
- ◎ Contributes to **teacher's professional development**.



Open Educational Resources



casa das ciências
PORTAL GULBENKIAN PARA PROFESSORES



A refração da luz



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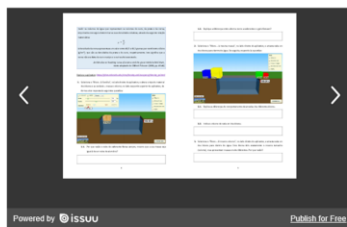
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Detalhes

Categoria Física 3º Ciclo	Tipo de recurso Documento de texto	N.º de downloads 89
Unidade Luz	Interatividade -	Classificação dos utilizadores ★★★★★ 1 voto (clique para votar)
Tema Fenómenos óticos	Submetido por Manisa Correia	Ver comentários (0) Comentar

Investigar um problema denso



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Detalhes

Categoria Física 3º Ciclo	Tipo de recurso PDF	N.º de downloads 403
Unidade Ciências Físico-Químicas	Interatividade -	Classificação dos utilizadores ★★★★★ 14 votos (clique para votar)
Tema Materiais - Propriedades Físicas e Químicas	Submetido por Manisa Correia	Ver comentários (0) Comentar

Project Results

Cavadas, B., & Correia, M. (2020). Conceções dos professores sobre ambientes educativos tradicionais e ambientes educativos inovadores. *Revista Internacional de Formação de Professores*, 5, e020020, p. 1-21. <https://periodicos.itp.ifsp.edu.br/index.php/RIFP/article/view/1873>

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A decorative network diagram in the top-left corner, consisting of interconnected nodes and lines, some solid and some dashed, in a light gray color.

Pandemic times

What has been done in
Sci&Math Creative Lab?

A decorative network diagram in the bottom-right corner, consisting of interconnected nodes and lines, some solid and some dashed, in a light gray color.

Adaptation to pandemic times

- **Promote blended Learning**
- **Organize schedules in order to divide very large classes**
- **Keep a safe distance between students**
- **Develop a schedule for routine cleaning and place alcohol-based hand sanitizers**
- **Maintain an adequate ventilation**
- **Keep each student's belongings separated from others'**
- **Discourage sharing of items that are difficult to clean or disinfect**
- Ensure adequate supplies to minimize sharing**
- Guarantee a safe collaboration between students (outdoor activities)**



Adaptation to remote teaching

- ◎ **Learning management system (Moodle)**
- ◎ **Interaction with students**
- ◎ **Prepare students to work autonomously and remotely**
- ◎ **Combining teaching strategies**
- ◎ **Ensuring accessible and diverse technological resources**
- ◎ **Virtual experimentation through interactive simulations**
- ◎ **Clearly presenting the assessment criteria**
- ◎ **Well-organized instruction**
- ◎ **Diversify assessment strategies and instruments**
- ◎ **Technologies that promote collaborative work and formative assessment**





Future Directions

THANKS

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