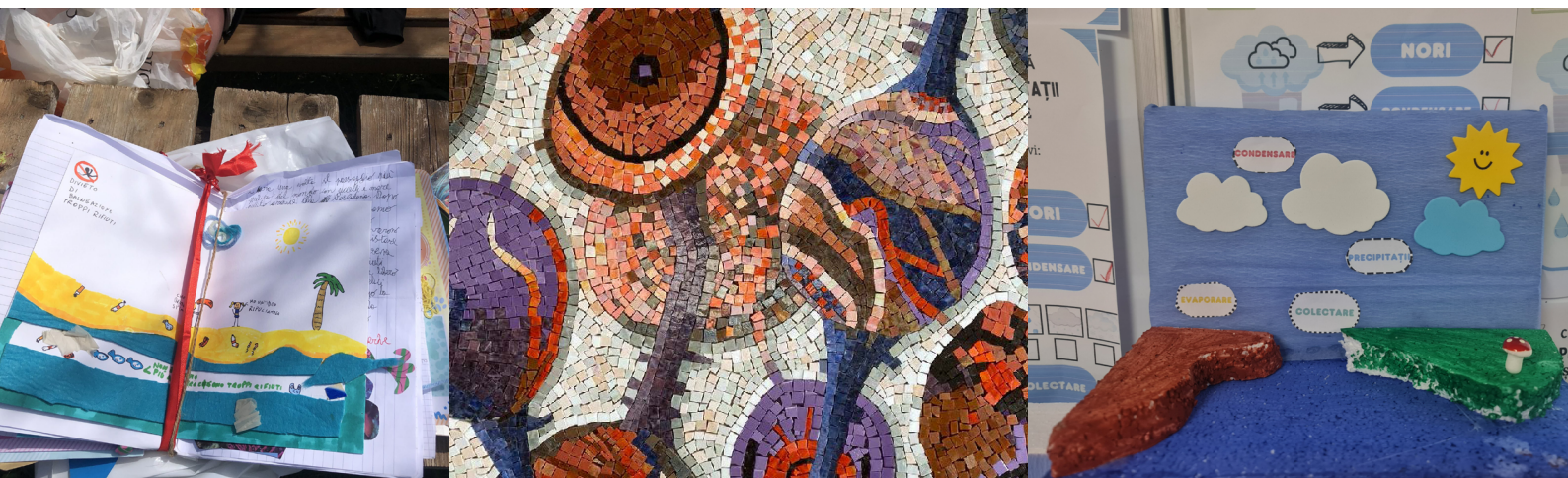


SLEs PORTFOLIO

Snapshots of change:
real-life stories from the ground



INTERTWINED - MOSAIC OF THE COMMUNITY BRAIN



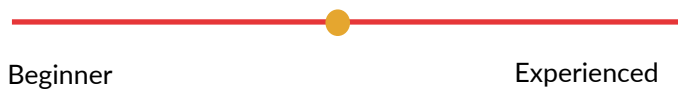
BRAIN SCIENCE ART COMMUNITY ENGAGEMENT

THE INITIATOR

- Ballybane Community Library
Galway, Ireland

Get in touch: mary.deely@universityofgalway.ie

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

In Ireland, the SLE sought to connect 15-year-old students (transition year) with the local library and its maker space. Community stakeholders utilised STEAM as a neutral ground for collaboration, with a specific focus on brain science. This culminated in a final artwork showcased during Brain Awareness Week.

The full story:

- [Brain science mosaic unveiled in Galway library](#)
- [Human Brain and Mosaics: the SLE pilot in Ireland](#)

THE SLE



THE CHALLENGE

- Teenagers' lack of engagement with the local library and its maker space



THE BENEFITS

- Re-engagement with the library and its maker
- Increased knowledge of brain science and its diagnostic tools
- Knowledge and hands-on experience of microscopy
- Utilising philosophical tools to solve problems



THE COMMUNITY

- SFI Research Centre for Medical Devices (CURAM)
- Galway Community College students
- Ballybane Community Library
- Local artist



THE LEARNING PRODUCT

The brain-themed artwork [blends 30 mini mosaics from students and library staff](#), symbolising the unity of cell nuclei in the brain, echoing the project's focus on community connection.

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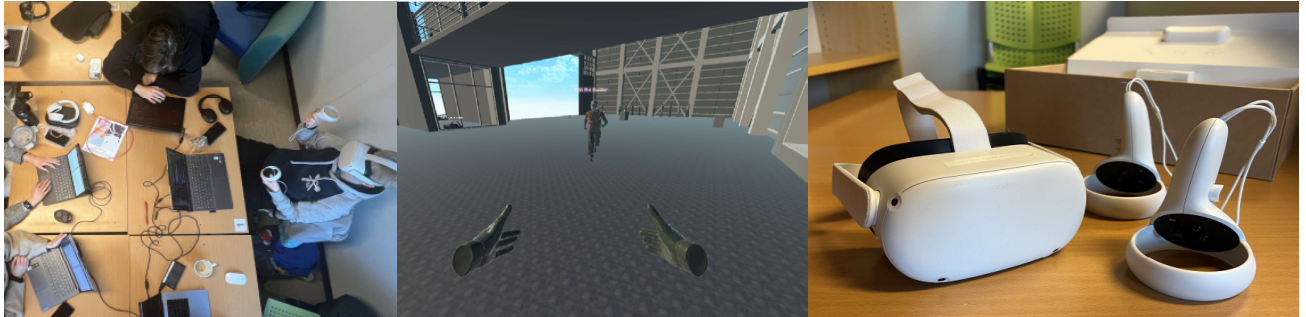


OSTOGETHER



OSTOGETHER

STUDENT SOFTWARE SOLUTIONS FOR REAL CLIENTS



SOFTWARE ENGINEERING TEAM WORK FROM THEORY TO PRACTICE

THE INITIATOR

- Norwegian University of Science and Technology
Trondheim, Norway

Get in touch: postmottak@ntnu.no

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

Bridging the gap between theory and practice, this Norwegian SLE invited university students aged 21 to 24 years old to create realistic software prototypes 'on contract' for a real-world customer. The initiative raised participants' software engineering skills, teaching the whole software development lifecycle (project management and planning, pre-study, requirements gathering, design, programming, testing, evaluation, and documentation).

The full story:

- [Interview with course teacher](#)
- [Article on the Customer Driven Learning Ecology](#)

THE SLE



THE CHALLENGE

- Increased need for industry-compatible competences and relevant practical skills
- Support for university students transitioning from academic settings to the professional world



THE BENEFITS

- Bridging the gap between university and industry in software development
- Practical experience in executing all phases of large development projects and present results to a real customer
- Insight into project work and how groups can be used to solve complex software engineering problems.



THE COMMUNITY

- Professors and Teacher Assistants from the Norwegian University of Science and Technology, Faculty of Information Technology and Electrical Engineering
- Industries in the private sector (Information Technology, Engineering, Virtual Reality, AI)
- Municipality of Trondheim



THE LEARNING PRODUCT

- Delivery of the Minimum Viable Product - a software product with enough features to attract early-adopter customers
- Production of a report explaining the whole development process
- Students' presentation on the project

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OSTOGETHER



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IMAGINING THE WORLD IN 2030



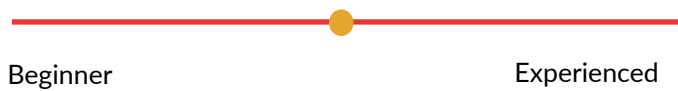
AI TOOLS TEAM WORK SDGs

THE INITIATOR

- Domus - Museos Científicos Coruñeses
A Coruña, Spain

Get in touch: domus@casaciencias.org

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

In Spain, this SLE engaged 15 and 16-year-old students to create an audiovisual piece with the help of AI tools. The topic was: 'How do you imagine the world in 2030?', and it had a connection with the 17 UN Sustainable Development Goals (SDGs). Learning to integrate AI is a societal challenge and an educational need. As of 2024, this subject is already taught in Galicia.

The full story:

- [Interview with the STEM advisor of CIEDix](#)

THE SLE



THE CHALLENGE

- Need for young people to know how to use AI tools
- Raising awareness on the ethical and environmental opportunities and threats arising from the use of AI



THE BENEFITS

- Identify the ethical and political implications of the design and use of AI systems
- Know how to use and understand the fundamentals of the digital tools utilised in the creation of AI solutions
- Communicate clearly and effectively the results of the activities
- Identify the areas of AI in different fields of application in society: art, music and culture.



THE COMMUNITY

- Domus Science Centre
- CIEDix: educational innovation centre
- Mundos digitales: festival on animation, video games and digital media
- University of A Coruña
- Science Club David Buján School and Xentd100cia: science youth association



THE LEARNING PRODUCT

Audiovisual piece about how students imagine the world in 2030 - connected to an SDG. The audiovisual piece was made with the help of AI tools and has a maximum duration of 3 min.

www.steamecologies.eu

THE BUTTERFLY PROJECT



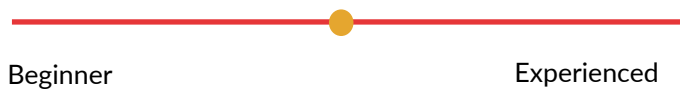
BIODIVERSITY DIGITAL TOOLS AWARENESS RAISING

THE INITIATOR

- Cyprus Ministry of Education, Sport and Youth, Unit for Education for the Environment and Sustainable Development
Nicosia, Cyprus

Get in touch: perivallontika@cyearn.pi.ac.cy

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

In Cyprus, this SLE invited 16-year-old students to conduct butterfly research using the [eBMS app](#) and monitor local butterfly populations and ecosystem flora. The aim is to raise awareness about natural conservation and protect biodiversity. Collaborating with the Pera Chorio Nisou municipality, pupils established a butterfly park, selecting host plants and planning educational exhibitions.

The full story:

- [Interview with Lead Teacher](#)
- [Co-creation workshop on pedagogical design](#)

THE SLE



THE CHALLENGE

- Students are not aware of their local ecosystems and how endangered they might be



THE BENEFITS

- Focus on local ecosystem for research purposes
- Study the flora, the butterfly life cycle, and the causes of decreased butterfly biodiversity
- Find ways to increase the floral and butterfly biodiversity



THE COMMUNITY

- Students and teachers from Idalion High School
- Researchers from University of Cyprus and Open University of Cyprus
- Municipalities of Pera Chorio Nisou and Dali
- Local Museum



THE LEARNING PRODUCT

The involved students created a data repository recording the identified butterfly species and all relevant information (butterfly species, population size, trends, etc). With this, the students supported a local butterfly park, disseminating knowledge about butterflies and increasing their biodiversity

GREEN CITIZENSHIP IN ACTION



CIRCULAR BIOECONOMY ACTIVE CITIZENSHIP EMPOWERMENT

THE INITIATOR

- Agency for the Promotion of European Research
Rome, Italy

Get in touch: sles-project@apre.it

Suggested familiarity with the Open Schooling approach:

Beginner

Experienced

IN A NUTSHELL

In Italy, this SLE developed knowledge, critical, and creative thinking on circular bioeconomy and environmental sustainability. It fostered active citizenship, agency, entrepreneurship, teamwork, self-esteem, and resilience for 11-year-old pupils. Students in Rome engaged in interactive seminars, classroom lessons, fieldtrips, workshops, and dissemination activities facilitated by different external experts and researchers.

The full story:

- [Activities with ISPRA](#)
- [Interview with Researcher from ENEA](#)

THE SLE



THE CHALLENGE

- The need to educate and empower students on green sustainability topics through engaging formats
- The need of new practical models for more sustainable schools and communities



THE COMMUNITY

- I.C. Guicciardini
- Italian Institute for Environmental Protection and Research
- Italian National Agency for New Technologies, Energy and Sustainable Economic Development
- National Institute for Insurance against Accidents at Work
- FAO
- University UnitelmaSapienza



THE BENEFITS

- Awareness on circular economy and sustainability
- Soft skills like creativity, critical thinking, and problem-solving (for pupils and teachers)
- Experiences on managing an ecological beach and circular economy
- Inspiration for future career jobs such as researchers, fishery, bio-based fields, etc.



THE LEARNING PRODUCT

- A book crossing house realized with recycled material
- Junk-journals made with scraps and material recovered during the on-field experience in the Natural Reserve of Torre Flavia
- Digital annual sustainability calendar
- A final video featuring the activities

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ECOSYSTEM SERVICES FROM LAND TO SEA



SDGs OBSERVATION NATURAL PHENOMENA

THE INITIATOR

- Centro Ciência Viva do Algarve
Faro, Portugal

Get in touch: info@ccvalg.pt

IN A NUTSHELL

In Portugal, this SLE engaged students aged 9 to 10 years old into STEAM activities on environment and sustainability aspects for a whole week. At the end of the week, pupils presented proposals for action aligned with the UN Sustainable Development Goals (SDGs).

Suggested familiarity with the Open Schooling approach:



THE SLE



THE CHALLENGE

- Need to increase students' awareness on UN Sustainable Development Goals



THE BENEFITS

- Educational experiences diverging from the typical classroom setting
- Encourage exploration through scientific fieldwork, fostering the capacity to observe natural phenomena directly



THE COMMUNITY

- Centro Ciência Viva do Algarve
- University of Algarve
- Research Centers and Institutions of Faro
- Education services of the municipality of Faro
- Faro city Schools
- Ciência Viva National Network



THE LEARNING PRODUCT

- Pupils learn very innovative subjects like the local geological history, the biology of the local 'Ria' (ocean lagoon surrounding Faro), the movement of the Sun, robotics construction and programming, climate change and SDGs subjects
- Production of clay volcanoes, robots and related programs, solar clocks, painted bags featuring leaf impressions, observational drawings, and tables documenting environmental parameters

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OSTOGETHER



OSTOGETHER

STEAMING UP WITH NATURE'S WONDERS



ENVIRONMENT INQUIRY-BASED APPROACHES ART & SCIENCE

THE INITIATOR

- Mircea cel Batran National College
Ramnicu Valcea, Romania

Get in touch: office@cnmirceavl.ro

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

With this Romanian SLE, 6 and 7-year-old students discovered nature and the natural habitats of the Buila Vanturarita National Park. They explored its flora and fauna through sensory and inquiring-based approaches, supported by the national experts and the insightful materials provided by the Park authorities. The SLE gave students the chance to choose among specific natural elements (birds, animals, plants), and undertake various activities like sensory labs, artistic and coding workshops, and bird feeder engineering.

THE SLE

THE CHALLENGE



- Students should reconnect with nature (especially local nature) more

THE COMMUNITY



- Students and parents of the school in Ramnicu Valcea
- Local environmental scientists, ecologists, naturalists, and yoga instructor
- Local tourist information center, county library, National Park representatives, regional theatre, and County School Inspectorate

THE BENEFITS



- Increased knowledge of biology, earth science, mathematics, and engineering
- Improved skills in language and arts through theatre, storytelling, drawing, and crafting
- Acquisition of observational skills, mindfulness in nature, and basic robotics concepts
- Learning how to combine arts and science for storytelling and communication

THE LEARNING PRODUCT



Pupils produced diverse learning products like posters on natural ecosystems, the book of seasons, comics, bird model, graphs on seasons' colors, tabs counting leaves, robot designs and bird houses designs, photography books, water cycle model and habitats model, investigation sheet and graphs, personalised messages about nature on wood, model of a green world, model of a grey world.

AI IN ECOLOGY - ECOLOGY IN AI



ENVIRONMENTAL AWARENESS MULTICULTURALISM BIODIVERSITY

THE INITIATOR

- Poprad Primary School
Poprad, Slovakia

Get in touch: skola@zsjarnapp.edu.sk

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

This Slovakian SLE merged multiculturalism, environmental awareness, and digital competencies, involving two schools (from Slovakia and Poland) into a week-long workshop in the Natural Park of the High Tatras mountains. Pupils aged 13 years old learnt about and worked for the conservation of endangered species in this special ecosystem. Students became actors for change by producing an e-book on endangered plants, as well as posters and dissemination materials to be shared with the future visitors of the Park.

The full story:

- [Interview with the school teacher](#)

THE SLE



THE CHALLENGE

- Lack of students' engagement with the conservation of the local ecosystem



THE COMMUNITY

- Students and teachers of a Slovakian and Polish school
- Experts and representatives of High Tatras Botanical Garden



THE LEARNING PRODUCT

- A [detailed botanical e-book](#) featuring descriptions, illustrations and identification keys for endangered plant species.

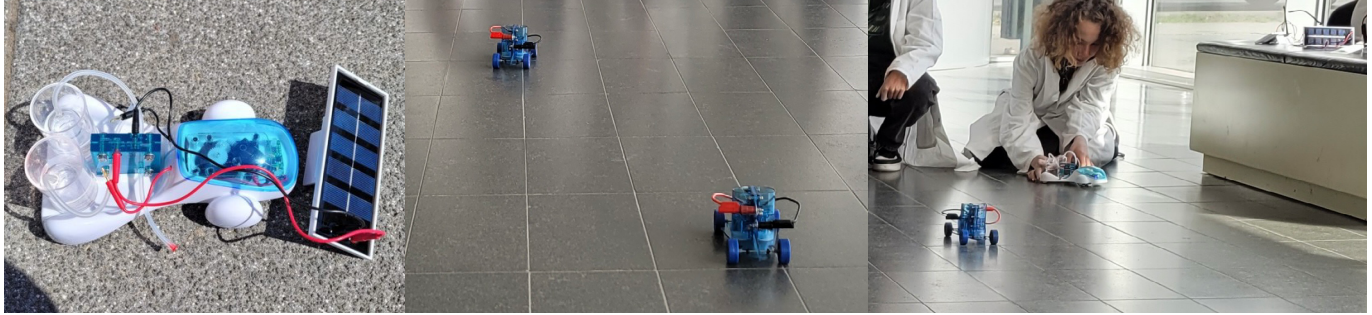


THE BENEFITS

- Increased understanding of biodiversity, the impact of environmental factors on plant species, and conservation strategies
- Application of research skills to gather and analyse data on endangered plant species
- Proficiency in photography, videography, and digital media creation
- Understanding the role of media in conveying scientific information
- Advocacy skills and understanding the role of individuals in environmental stewardship
- Understanding the role of art in conveying ecological and scientific messages
- Effective communication and collaboration skills for conducting awareness campaigns.

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ENERGIES FOR THE FUTURE



TEAM WORK RENEWABLE ENERGY PROBLEM SOLVING

THE INITIATOR

- WISTA Management GmbH and Humboldt-Universität zu Berlin Berlin, Germany

Get in touch: lisa.bering@hu-berlin.de, horchemer@wista.de

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

This German SLE engaged 12 to 16-year-old students into collaborative activities related to the development and use of renewable energies. With interdisciplinary and practical activities, the initiative promoted a holistic understanding of sustainable energy and transformed pupils into advocate for a clean an greener future.

The full story:

- [Interview with the university student assistant](#)

THE SLE



THE CHALLENGE

- The need of future generations to be aware about climate change issues and renewable energy solutions



THE COMMUNITY

- High school students and teachers in Berlin
- Head of extracurricular learning center
- Post-doctoral candidate



THE LEARNING PRODUCT

- Design of small renewable energy systems and models of fuel cell-powered cars



THE BENEFITS

- Increased soft skills like critical thinking,
- Problem-solving strategies and collaborative learning, group collaboration, teamwork, and effective communication
- Acquired ability to evaluate complex energy-related issues and propose innovative solutions
- Proficiency in photography, videography, and digital media creation
- Opportunity to organise events, workshop and exhibitions to showcase the acquired knowledge

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OSTOGETHER



OSTOGETHER

PSYCHOPHYSICAL HEALTH AND WELLBEING



SPORT DATA ANALYSIS 3D DESIGN

THE INITIATOR

- Center for the Promotion of Science
Belgrade, Serbia

Get in touch: kstekic@cpn.rs

Suggested familiarity with the Open Schooling approach:



IN A NUTSHELL

The Serbian SLE members joined forces to raise awareness of the importance of psychophysical health and wellbeing through a holistic approach that expands the knowledge surrounding this topic. Students aged 5 to 19 years old and teachers from the Patrijarh Pavle Gymnasium, along with their SLE partners, designed their desired school gym, prototyped the gym equipment, organised a race, a quiz and a research study, and created a set of healthy meal plans.

The full story:

- [Web article on all the activities](#)
- [Interview with school teacher](#)

THE SLE



THE CHALLENGE

The Patrijarh Pavle Gymnasium is one of the few schools in Belgrade that doesn't have its own gym. This prevents the students from actively participating in physical education for most of the year.



THE BENEFITS

- Acquired competences like 3D architectural design and printing, surveys conduction, and data analysis
- Students engaged in research to prepare for the quiz and create healthy meal plan
- Improvement of cardio performance through students' participation in a race



THE COMMUNITY

- High school students and teachers in Belgrade
- Architects, sportsmen, researchers, journalists, and makers
- Ex-students from the Patrijarh Pavle Gymnasium

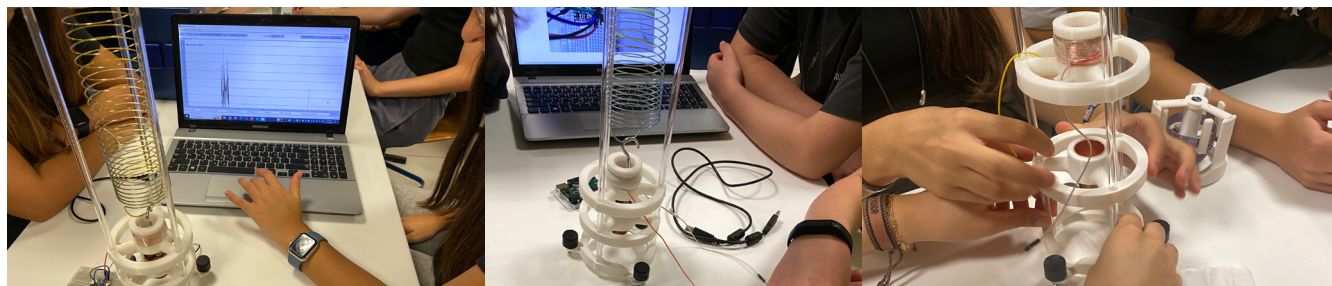


THE LEARNING PRODUCT

- 3D models of the school gym and gym equipment, and printed prototypes
- Healthy meal plans designed
- Quiz
- Canva presentation of the results

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STUDYING EARTHQUAKES



EARTHQUAKES AWARENESS RAISING DATA ANALYSIS

THE INITIATOR

- Ellinogermaniki Agogi
Pallini-Athens, Greece

Get in touch: gnavroma@ea.gr, amoshou@ea.gr

Suggested familiarity with the Open Schooling approach:

Beginner

Experienced

IN A NUTSHELL

With this Greek SLE, students aged from 13 to 16 years old studied the phenomenon of earthquakes. They learnt how scientists and researchers measure the features of an earthquake, how a seismograph works, and how to monitor the seismicity in an area. Pupils also built a DIY seismometer to collect and analyse data. They designed seismic shake tables to show how earthquakes impact buildings. Finally, they organised and participated in outreach and awareness activities about earthquakes for the school community and the general public.

The full story:

- [Interview with the initiator](#)

THE SLE



THE CHALLENGE

- The need to understand the societal impact of natural disasters, particularly earthquakes in the South-Eastern Mediterranean region
- The need to increase awareness of precaution measures and civic protection



THE BENEFITS

- Understand natural phenomena
- Understand and undertake science processes (by using scientific instruments to make observations, collecting evidence and data, and testing hypothesis)
- Understand the societal impact of natural disasters
- Increase awareness of precaution measures and civic protection
- Collaboration, communication and presentation skills



THE COMMUNITY

- School students
- Secondary school teachers
- Researchers and experts
- Parents, school community, and the general public



THE LEARNING PRODUCT

- Creation of DIY seismometer to collect data
- Creation of seismic shake tables

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GIRLS4STEM



EMPOWERMENT AWARENESS RAISING DATA ANALYSIS

THE INITIATOR

- Directorate for STEM & VET Programmes
Pembroke, Malta

Get in touch: penelope.ann.fitzgerald@ilearn.edu.mt

Suggested familiarity with the Open Schooling approach:

Beginner

Experienced

IN A NUTSHELL

This SLE in Malta aimed to foster interest in various STEM areas with 12 and 13-year-old female students, thus challenging gender stereotypes by approaching a number of female STEM professionals. Sessions regarded electromagnetism, radiography, diagnostic science, entrepreneurship, coding. The initiative was organised by a team of Education Officers within the Directorate for STEM & VET Programmes, and involved different stakeholders, learning contexts and experiences.

The full story:

- [Interview with the initiator](#)

THE SLE



THE CHALLENGE

- The need to counteract gender stereotypes when choosing STEM subjects and STEM-related careers
- The need to give opportunities for female students to work with female STEM professionals



THE COMMUNITY

- STEM Education Officers from the Directorate for STEM & VET Programmes
- Teachers and students
- University of Malta
- ESPLORA
- HEADSTART
- Nature Trust (Malta)
- Heritage Malta
- Directorate of Health
- Malta Enterprise



THE BENEFITS

- Increased awareness of STEM studies
- More female students being inspired on future STEM career paths
- Collaboration among various stakeholders
- Collaboration among students to carry out tasks and undertake an environmental assessment of an area of their choice
- Increased communication skills while disseminating findings and conclusions to a broad audience



THE LEARNING PRODUCT

- Students' presentation on findings and work done during sessions offered by the SLEs stakeholders. The presentations, produced digitally, included pictures, tables of results, and other findings

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