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2023 EUROPEAN INNOVATIVE TEACHING AWARD

Education and Innovation

EUROPEAN YEAR OF SKILLS

EUROPEAN COMMISSION

Directorate-General for Education, Youth, Sport and Culture
Directorate B: Youth, Education and Erasmus+
Unit B.2 - Schools and multilingualism

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A compendium of the 2023 European Innovative Teaching Award laureates

Directorate-General for Education, Youth, Sport and Culture
Erasmus+

2023

EN

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Foreword

The European Innovative Teaching Award is one of the most important EU initiatives supporting the teachers and educators' role for achieving the European Education Area.

It complements other initiatives, such as the Council Recommendation on "Pathways to school success" and the Digital Education Action Plan to enhance quality and inclusive education, training and lifelong learning.

Teachers can benefit from cooperation with peers and carry out a learning mobility period abroad with Erasmus+. Furthermore, the Erasmus + Teacher Academies strengthen their professional development.

Part of the teacher's job is to break away from routine, to create an innovative learning environment and to encourage young people to develop their potential.

At the same time, rapidly emerging technologies, such as artificial intelligence, require specific skills to deal with new challenges, opportunities and risks.

In this context, young people should start developing specific competences as soon as possible in life, for example in the areas of programming and coding. This is why this year's theme of the European Innovative Teaching Award is 'Education and innovation', with a focus on existing and emerging technologies.

It is also closely linked with the European Year of skills (2023), which aims to address skills gaps in the European Union and boost the Union's skills strategy. It helps people get the right skills for quality jobs and supports addressing the skill shortages in Europe.

The projects awarded in 2023 are excellent examples of visionary and innovative approaches supported by Erasmus+. They show that innovation in education can derive from the grass-root level. This is possible thanks to enthusiastic teachers and schools working in collaboration to ensure that pupils acquire skills needed in our rapidly developing societies.

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AUSTRIA

EARLY CHILDHOOD EDUCATION AND CARE

Digital and European Competences in Großsteinbach

Project Coordinator: **Gemeinde Großsteinbach**
Project reference: *2020-1-AT01-KA101-077773*

Project partners:
- **St.Marien School in Moers (Germany)**
- **Smultronställets pre-school in Gaevle (Sweden)**

Topic(s) addressed

The project covered the following topics: digital competences with activities like Digi-Train, Bee-Bots and self-made "Human Bee-Bots"; Europe Week with virtual journey through selected European countries and presentations from parents from different countries that included a French lesson and learning a Hungarian Christmas song.

Target group(s)

We specifically targeted children between three and six years old. The project addressed also the kindergarten teaching staff and the parents.

Methodologies

The educators have learned a lot about the use of digital media in preschool. An inclusive approach allowed all children to benefit from these materials and methods. Thus, the children could gain a better understanding of the community. With Bee-Bots and "Human – Bee-Bots", girls and boys learnt programming in a playful way and took an interest in maths and logic. This approach will continue further on in primary and secondary school with Blue-Bots, Lego-WeDo and Robotics.

Innovation environment

The kindergarten in Großsteinbach offered different rooms for presenting digital activities.
The kindergarten children developed their skills guided in small groups by pedagogues or through peer learning.
The pedagogues keenly embraced the new ideas of digital access and European topics.
The materials for the project were made so they can be reused in the future.

Teachers' role

The kindergarten teachers were trained through relevant training to better introduce children to the use of digital learning tools and present programming in a playful way. They happily shared the content with each other. Erasmus+ mobilities were used to introduce the teaching staff to the use of digital tools like tablets that can prove very productive in the years to come.

Impact and output

Through this project, children enhance their logical, mathematical, and digital skills, while parents recognize the meaningful use of digital media. The Digi-train's virtual European journey fosters a sense of community among diverse cultures. Younger children benefit from older ones, and even interns appreciate this symbiotic approach. Consequently, primary school students develop foundational programming and logical thinking skills early on. The excitement is palpable all around!

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AUSTRIA

PRIMARY EDUCATION

Nature detectives on the road

Project Coordinator: **VS St.Marein bei Neumarkt**
Project reference: *2018-1-AT01-KA229-039227*

Project partners:
OS Lovrenc na Pohorju (Slovenia)

Topic(s) addressed

The project covered European cultural heritage, digital skill enhancement and exploring traditional songs, dances, and clothing. Additionally, the project focused on the observation of growth processes and bionics. There was also room for learning English and Slovenian and developing social skills.

Target group(s)

The activities around the project addressed a group of 57 pupils and five teachers.

Methodologies

The focus was on gaining practical skills with the extensive use of workshops. They were carried out outdoors on locations of great environmental or cultural value like Postojna stalactite cave and Forchtenstein Castle and covered various topics related to fauna and flora and landscape.

Innovation environment

Due to the general thematic scope of the project, most of the activities were taken outdoors. This way, natural locations became extended classrooms and allowed for creative development of learning content. The participants could observe growth processes as they happen in their natural environment and subsequently compare the results of their experiments with the partnering schools.

Teachers' role

The teachers not only expanded their professional and cultural horizons but on the heels of their own development they also became tutors for their peers. They happily engaged in teamwork that included a playful learning of the Slovenian language. In effect, the project activities contributed to raising the appreciation of the neighbours and recognising common historical roots.

Impact and output

The project brought added value by not only expanding greatly knowledge offauna and flora in the Rogla Mountains and building new skill sets but also raising awareness of cultural heritage, the people and traditions of Slovenia. In detail, the participants gained knowledge about the construction and operation of hydroelectric power plants, went in more depth into bionics, conducted experiments and research and documented their findings by creating research maps and learning materials for further sharing.

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AUSTRIA

SECONDARY EDUCATION

Today for the World of Tomorrow

Project Coordinator: **BG/BRG/BORG "Franz Liszt"**
Project reference: ***2019-1-AT01-KA229-051220***

Project partners:

- **Städtisches Louise-Schröder-Gymnasium München (Germany)**
- **BHAK Eisenstadt (Austria)**
- **Liceo delle scienze umane e dell'arte di Brunico (Italy)**

Topic(s) addressed

The main topic was the "Sustainable Development Goals - SDGs" by the United Nations.

Target group(s)

The main target group were pupils in secondary education from all our regions, meaning Austria, Germany and Italy.

Methodologies

The project was based on action-oriented teaching methods, including the Flipped Classroom. The students first received an input with which they dealt independently. Afterwards, action-oriented work was carried out based on the input from the lessons in the partner schools. An additional approach to the project was to enable the pupils to participate in lectures by experts (e.g. futurologists). Likewise, the project aimed at connecting as much as possible to the life of the learners - hence the idea of including the SDGs in the conception and development of an interactive space, which the learners filled and also programmed, with the help of teachers.

Innovation environment

Collaboration among project leaders, teachers, and students drove innovation, resulting in a dynamic learning space that promotes intercultural engagement. Teachers and students together crafted this interactive environment, engaging the entire school community and even reaching a wider regional audience through presentations. Interdisciplinary teamwork, spanning subjects like languages, history, and computer science, laid the foundation for an innovative interactive platform. The project's achievement—a versatile interactive space - fuels inventive teaching and learning methods across regions. This project highlighted the power of collaboration in sparking educational innovation.

Teachers' role

Despite COVID-19 and other challenges, the project participants remained steadfast in creating a strong communication network among schools. The teachers, skilled in communication and problem-solving, shared knowledge, positively impacting teaching methods and inspiring students' innovative learning. Students observed and experienced this synergy, with teachers serving as exemplary role models.

Impact and output

In preparation for future use, the materials created for the interactive space—including protocols, radio segments, video games, films, and texts—are available to upcoming classes through platforms like LMS, eTwinning, and Erasmus+. This facilitates the integration of SDGs not only in partner schools but also in a wider geographical context. See ***https://www.brgop.at/erasmus/heute-fuer-die-welt-von-morgen/***.

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AUSTRIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Integration of Mobile Apps into Education

Project Coordinator: **HTL Mössingerstraße**
Project reference: *2018-1-AT01-KA229-039194*

Project partners:
- **Majal Blanco S. Coop. Santomera (Spain)**
- **Liceum Ogolnoksztalcace, Nova Sol (Poland)**
- **Sultangazi Mesleki ve Teknik Lisesi, Istanbul (Türkiye)**

Topic(s) addressed

The project covered the following topics: digital skills in relation to mobile app development, language and communication competencies as well as intercultural meetings.

Target group(s)

The project's focus is on students and teachers within vocational schools. The primary objective is to enhance students' digital skills by immersing them in mobile app development. Concurrently, the project aims to equip teachers with comprehensive lesson plans for effective instruction.

Methodologies

The project utilized diverse methodologies across technical subjects, language learning, geography, and social competence. Formal approaches included programming mobile apps in ICT and foreign language lessons, as well as geography classes. Non-formal methods involved practical communication with partners during multicultural meetings, workshops in mixed nationality groups, and hands-on learning via student-created mobile apps. The project was committed to inclusive education, integrating students of varying abilities.

Innovation environment

Workshops supported technical knowledge transfer, while multinational groups encouraged creative app development. Accessible tools like computers enriched learning, extending to real-world app usage. Language skills were applied in presentations and partner communication. Collaboration between engineers, ICT, and language teachers enhanced project activities.

Teachers' role

ICT teachers facilitated students with essential mobile app programming skills, nurturing their creative concepts and guiding the application of knowledge in practical scenarios. Language instructors equipped students with presentation skills, group communication proficiency, workshop engagement, project result documentation, and feedback writing abilities. Geography educators prepared students for international project meetings through cultural insights. Collaboration among project school teachers spanned application preparation, meeting coordination, website creation, project documentation, and national dissemination efforts.

Impact and output

Participants learned mobile app development, translating into practical use in their daily lives. They gained a deep appreciation for foreign languages as essential tools in multinational communication. The project instilled cultural understanding, fostering tolerance and solidarity, enabling students to embrace diverse ways of life. Spreading the project's influence was achieved through open day presentations, school magazine reports, newspaper coverage, and comprehensive publication of project outcomes on both the project and school websites.

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BELGIUM

PRIMARY EDUCATION

Grow with the screens

Project Coordinator: **Ecole communale mixte fondamentale d'Ouffet section de Warzée**
Project reference: *2019-1-BE01-KA229-050401*

Project partners:

- **OOU "Metodi Mitevskl-Brico", Lozovo (North Macedonia)**
- **Liceul Vocational Pedagogic "Nicolae Bolcas", Beius (Romania) AYDINLIKEVLER ILKOKULU (Türkiye)**
- **Colegio Internacional SEK-Alboran (Spain)**
- **Ecole élémentaire publique Marcel Pagnol (France)**

Topic(s) addressed

The project's goal was to help children, their parents and teachers find answers to the commonly asked questions about modern technology.
In the end, an application guide was produced

Target group(s)

About 200 teachers and more than 2,000 students aged 2.5 to 18 have joined this ambitious project

Methodologies

To achieve the project's objectives a set of methods was developed and a participatory approach was used. It included cooperation and a transdisciplinary strategy. The self-esteem building was achieved by promoting involvement and participation in school extra-curricular activities and working committees. Working hand-in-hand with our European partners was possible through the use of eTwinning platform.

Innovation environment

The project has not only bolstered the European partnership but also actively engaged teachers, particularly those specializing in computer science and language instruction. It has played a pivotal role in nurturing fresh skills among students, while simultaneously ensuring the seamless integration offamilies during the inception phase and throughout the project's various activities.
While the application succinctly outlined numerous impacts on teachers, students, and families, there exists an opportunity for a more comprehensive exploration and use of these impacts. Diverse domains, ranging from social enrichment to environmental consciousness, have been addressed as part of this endeavour.

Teachers' role

The quality of the inventive computer creations, exemplified by the QR Code-integrated application, stands as a testament to the deep engagement of educators, notably those specializing in computer science and language instruction.

Impact and output

The project's effects reverberate extensively across its three primary beneficiaries: teachers (showcasing best practices), students (acquiring novel skills), and families (enhanced screen management). Moreover, these effects are discernible not only within the context of the five participating schools but also in the embrace of innovative pedagogical approaches. The initiative has ventured into various spheres, spanning from social advancements to environmental considerations. The project's visibility is fortified through
the widespread distribution of the developed IT tools, facilitated by a robust network of collaborators at local, regional, and European tiers.

European Commission

BELGIUM

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Co-construction of an electricity laboratory

Project Coordinator: **Centre Asty-Moulin**
Project reference: *2019-1-BE01-KA229-050456*

Project partners:
Istituto Statale d'Istruzione Superiore "Vincenzo Moretti" (Italy)

Topic(s) addressed

Two project key activities centred on technical learning and involved mobility events between Roseto, Italy and Namur, Belgium.

Target group(s)

There were about ten instructors, managers and teachers involved in the project as well as circa 30 students with special needs from electrical and automation classes in both schools involved.

Methodologies

The core of the activities was driven by the dedication to nurturing students' entrepreneurial mindset. This dynamic approach empowered students to assume various roles, including proposers, managers, and directors, as they drive a diverse range of initiatives. A collaborative environment facilitated the sharing and comparison of practices, enabling participants to gain insights into the unique challenges and realities faced by each other.
One of the anticipated outcomes involved the establishment of a cutting-edge Roseto Electricity Lab, equipped with functional plates that are the result of collaborative efforts and innovative ideas from all participants.

Innovation environment

Professional cooperation facilitated the exchange of practices, comparison of the learning environment and creation of a common ground for further development. In practice, the collaboration led to the fitting of the electricity lab in Roseto with functional gear. That was possible also thanks to the sufficient level of English that aided the communication between the two schools. In addition, digital tools and the project logbook have been developed.

Teachers' role

The participating teachers had a significant input in the proceeding of the project. They established partnerships with each other developing essential elements of the endeavour and proving it successful to the wider community.

Impact and output

Participants developed analytical skills essential in achieving the set life objectives. They developed listening and adaptive skills as well as awareness of the requirements of the job market and of the available resources. that each They gained the self-confidence to meet others and to look for potential connections in Europe to make their projects successful.
This is now possible as the students acquired a profound knowledge of various communication tools.

BULGARIA

EARLY CHILDHOOD EDUCATION AND CARE

Learn and Play

Project Coordinator: **Primary school "Anton Strashimirov"**
Project reference: *2019-1-BG01-KA201-062561*

Project partners:
- **Fondatsiya obrazovatelno satrudnichestvo (Bulgaria)**
- **Innoquality Systems (Ireland)**
- **Istanbul Valiligi (Türkiye)**
- **Instituto para el Fomento del Desarrollo y la Formación Sl Limited (Spain)**
- **Asociación La Bien Pagá Espacio Escénico (Spain)**

Topic(s) addressed

The project's objective was to provide an interactive platform for teaching basic literacy skills in four languages.

Target group(s)

The endeavour addressed children of minority or migrant backgrounds, school teachers and parents.

Methodologies

In pursuing the project's objectives, the participants resorted to some effective methods. They linked formal and non-formal learning and focused on inclusion, participation and cooperation between students, teachers and parents. The innovative development and implementation of digital tools proved particularly beneficial.

Innovation environment

The project supported extensive language learning, based on gamification of tutorial content with a variety of interactive resources. Teaching ideas and pedagogical instruments were based on the family learning approach and involved the entire community. The free resource base is sustainable and is already upgraded with more aids developed by other projects.

Teachers' role

The teachers were involved by using their everyday education resources while working with children and their parents. They also shared and discussed the results of their activities with their colleagues throughout the school networks. The project contributed greatly to upskilling teachers' digital skills that can be further used in collaborative work at the EU level.

Impact and output

The importance of the project's outcome shows at many levels. Firstly, it empowered the teachers who, with the aid of innovative tools, were able to overcome the language barrier while working with children of a different mother tongue. The platform developed in the course of the project greatly encouraged the teachers as they could better understand and meet the needs of the children.
The parents were able to play their role by supporting their children in their learning through playing.
The impressive results were produced as 85% of the children were able to read fluently at the end of the course. The time for acquiring each skill shortened considerably compared to the traditional learning in class.

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BULGARIA

PRIMARY EDUCATION

"Successful, Technological, Different, Effective – European awakeners in Education" TOMORROW

Project Coordinator: **"Dobri Chintulov" Primary school**
Project reference: *2019-1-BG01-KA101-061719*

Project partners:
- **"Motivated Learning for Everyone" (Bulgaria)**
- **EBB Europass Berlin Beratungsbüro GmbH (Germany)**
- **ICTQ Malta (Malta)**
- **Instituto Politécnico de Santarém (Portugal)**

Topic(s) addressed

The project covered topics related to the teaching process like gamification in the classroom, flipped classrooms and project-based learning. It also addressed the problems of tolerance and diversity and active citizenship in the 21st century classroom.
Finally, it featured the English language for teachers.

Target group(s)

Various groups of participants were involved in the activities. It comprised 63 pedagogical specialists and 800 students. Also, parents and local community members were actively involved.

Methodologies

For optimising the outcome innovative methods were employed. That refers to learning through research, analysing and doing in a multidisciplinary context. Autonomy and creativity were also promoted in building original teaching and learning strategies. The soft skills development was not overlooked as teamwork and expressing one's opinions were encouraged. The effective use of non-formal education proved particularly valuable as brainstorming, role-playing and simulations were extensively employed.

Innovation environment

The project created conditions where all teachers could feel supported and encouraged to freely use the various innovative methods and techniques to make the everyday teaching and learning process more exciting. A different "enhanced" learning environment was created that promoted equality in acquiring new skills. A positive change in the classroom atmosphere was tangible- relationships, motivation and the results achieved by the students.

Teachers' role

The teachers who took part in the courses took the role of modern "awakeners" in education. Through the "traveling training", they upgraded their teaching competences and personal qualities. They took time to share their experiences with their colleagues at meetings in the Methodological associations.
This competency build-up led to applying modern innovative teaching methods, new techniques, digital resources, multimedia products and non-formal education in teachers' daily practice.

Impact and output

The project effectively stimulated teachers towards "lifelong learning" for the purpose of self-improvement, self-assertion and professional growth. The students, on the other hand, increased their performance and developed a number of social skills. The project had a significant impact on the parental community, fostering "responsible" parenting and establishing a proactive dialogue between teachers and parents. The school has undergone changes in the learning environment, creating a positive educational climate. The quality of the educational process improved, providing more effective support for each student based on their age, needs, and abilities.

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BULGARIA

SECONDARY EDUCATION

Foreign languages and STEM – the key for success

Project Coordinator: **Specialized Secondary school of Natural Sciences and Maths " Acad. Prof. Dr. Asen Zlatarov"**
Project reference: *2019-1-BG01-KA101-061499*

Topic(s) addressed

The main topics addressed by the project were new ICT technologies and digital competencies, research and innovation as well as teaching and learning offoreign languages.

Target group(s)

The project involved the teachers of IT, Maths, Science and Foreign languages as well as about 300 students directly and even a larger number indirectly.

Methodologies

Online open lessons and competitions were held at national and international levels. E-learning and online resources were employed in teaching digital skills which resulted in excellent results in online learning during the COVID-19 pandemic. The students gained skills in creating multimedia products through using digital tools and applications. Open practices were held to teach the use of digital resources and astronomy. Students presented their media products created with the use of digital tools like Canva, Prezzi and Publisher. The e-Twinning platform was used to disseminate the results, as well as Padlet, a YouTube channel, and dedicated web pages.

Innovation environment

Teachers involved in the project took up the role of mentors for their colleagues and became the reference point for the future. They had open CLIL lessons to share their innovative teaching experience.

Teachers' role

The participating teachers became trailblazers in regard to the use of creative teaching techniques in various different fields. They effectively motivated students to better themselves and prove their skills in national and international contests. For their colleagues, they became mentors in a difficult process of transition to online teaching helping reduce stress at the workplace.

Impact and output

The project's most significant outcome was more interesting, interactive and open lessons that better motivate students and teachers. As a result, more students are keen to participate in various contests.
This way, the school became an example of a successful participation in the Erasmus programme encouraging other educational institutions to take part in it. The school experiences an influx of new highly qualified teachers and the overall score rating is on the rise.

European Commission

BULGARIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Improving professional skills through innovative practices in Europe

Project Coordinator: **Secondary Technical School "Dr. Nikola Vassiliadi"**
Project reference: *2021-1-BG01-KA122-VET-000030785*

Project partners:
- **AMFI International (Italy)**
- **Formación Europea Práctica Movilidad (Spain)**

Topic(s) addressed

The project addressed smart specialization to integrate training in robotics, green energy and electric vehicles and create smart bioclimatic buildings and cities. It also covered European educational ecosystems, culture for innovations and partnerships.

Target group(s)

The participants consisted of a group of 25 students in mechatronics, electronics and electric cars. They were complemented by 7 vocational training and ESP teachers.

Methodologies

The project implemented training through work in European companies and upgrading professional skills for sustainable transport and green energy. It utilised smart specialization and green transformation of professional skills to support emerging industries and a short transition to the labour market. Students acted as innovators and researchers in the professions of the future. Experiential learning was employed to create European educational ecosystems enhancing competitiveness and working in partnerships with research institutes, local government and businesses.

Innovation environment

The innovation environment was created by the implementation offlexible and multifunctional solutions for STEM education in a modern and adequate educational environment. It fostered the development of the skills and competencies of teachers in robotics , programming and prototyping for quality interaction in an interdisciplinary STEM environment. Dual training in an innovative technological real working environment was carried out in local and foreign companies to acquire practical skills.

Teachers' role

The teachers acted as innovators by generating innovative solutions for applying non-traditional tools in robotics and renewable energy education. They used methods of interaction and experiential learning in sharing experiences and achievements.
The undisputed achievement on the teachers' part was developing lasting connections between the students, mentors and the environment.

Impact and output

The project had a tangible impact on various levels. It allowed participants to gain highly recognised practical skills by working in real work and academic environments. It created working systems for research on applied projects, simulations and solving real business cases. Inclusion and social cohesion of disadvantaged participants stimulated tolerance and cooperation with others. Thanks to the project's outcomes the school attained certain accreditations and the status of Centre for Excellence in Vocational education training.

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CROATIA

EARLY CHILDHOOD EDUCATION AND CARE

Digital competencies of educators for contemporary pedagogical practice

Project Coordinator: **Kindergarten Čigra**
Project reference: *2019-1-HR01-KA101-060667*

Project partners:
- **Euneos Oy (Finland)**
- **Europass SRL (Italy)**

Topic(s) addressed

The project effectively tackled innovative teaching methods including the use of digital toys and robotics. The attention was focused on developing analytical skills through programming and coding, automation processes. Personal data protection in communication with parents was also addressed.

Target group(s)

The following groups of participants were involved: 35 teachers and other non-teaching staff, 150 children over three years old, and about 400 parents.

Methodologies

The extensive use of digital technologies was implemented into teaching and learning but also communication between teachers and stakeholders. the innovative methods made learning intuitive and fun. It contributed to the development of analytical and practical life skills. Some processes in the kindergarten were automated and accelerated which enabled individualised learning for children with special needs. Secure digital platform and QR codes were used for quick and safe sharing of ideas and materials.

Innovation environment

The project succeeded in creating a safe and stimulating environment for children. It managed to build trust through transparent presentation and sharing of practice. The endeavour proceeded in the atmosphere of cooperation and support with the interdisciplinary approach and focus on the benefits of using digital tools and methods.

Teachers' role

The educators went through comprehensive training which contributed to upgrading their competencies with a focus on digital skills. They had a chance to immediately put their newly acquired abilities into practice by creating digital educational output. It took the form of digital tasks, animated stories and podcasts. The teachers assumed digital methods as a standard, which brought the quality of the programme to a higher level.

Impact and output

The kindergarten curriculum has been upgraded thanks to the teachers' newly gained competencies. The digital security policy has been improved and a digital support system for parents established. Hopefully, through activities, international cooperation, and the display of knowledge and skills on the proper use of digital technologies, the project changed the participants' perception of the educational process and showed the advantages of using modern technologies in everyday practice.

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CROATIA

PRIMARY EDUCATION

SLAM – STEM Learning Activities & Methods

Project Coordinator: **Primary school Fran Koncelak Drnje**
Project reference: *2018-1-HR01-KA229-047465*

Project partners:
- **The Heritage Private School (Cyprus)**
- **Tartu Raatuse Kool (Estonia)**
- **2nd Gymnasium of Nea Ionia Attikis (Greece)**

Topic(s) addressed

The project revolved around robotics, F1 mechanics, astronomy and seismology touching also genetics and biology. The participants took a closer look at 3D modelling, abacus, hologram, Newton's disk and other interesting inventions.

Target group(s)

The participants were teachers, students and their parents. The project involved also the local community, a neighbouring school and scientists.

Methodologies

To achieve the project's objectives a set of methods was employed. It comprised research and problem solving as well as simulations and gamification.
In addition to practical activities and fieldwork, discussions were also conducted for a better understanding of the topics. Computational thinking was introduced consisting of identifying the problem and creating its abstract, then, breaking it down into small steps and developing strategies to solve them.

Innovation environment

Digital tools were used extensively and science open days and Math Nights were organised. Invited scientists and STEM teachers from neighbouring schools gave presentations and led workshops promoting STEM subjects. The environment created this way was further boosted by visits to science festivals, developing devices, conducting experiments and field research.

Teachers' role

The teachers gained new skills and a broader perspective which helped them develop new compelling teaching content. In consequence, they became promoters of more extensive use of modern technologies among their colleagues.
They had a chance to watch teaching methods implemented by schools in other European countries gaining experience they can extend into the future.

Impact and output

The projectproduced a sustainable outcome.
For young participants it was making long-lasting friendships and improving their language skills.
On the school level, it meant introducing innovative teaching methods and improving the learning environment. The school became more collaborative and inclusive creating equal opportunities for students with cultural differences, social obstacles, learning difficulties and disabilities.

European Commission

CROATIA

SECONDARY EDUCATION

Empowering girls in STEM through robotics and coding (RoboGirls)

Project Coordinator: **University of Zagreb**
Project reference: *2020-1-HR01-KA201-077760*

Project partners:

- **Centre for advancement of research and development in educational technology LTD-CARDET (Cyprus)**
- **Innovace LI LTD (Cyprus)**
- **Regional Directorate of Primary and Secondary Education of Attica (Greece)**
- **The Rural Hub CLG, (Ireland)**
- **Universidad autonoma de Madrid (Spain)**

Topic(s) addressed

Our objective was to boost girl's self-confidence in the context of STEM subjects. The aim was also to develop innovative teaching materials as well as encourage the teacher to implement hands-on STEAM activities using robotics and coding in line with gender equality principles.

Target group(s)

Our project involved over 400 teachers, more than 1300 students and education policy makers.

Methodologies

Our RoboGirls project was based on an e-learning platform that helped educators implement robotics and coding to motivate and empower girls to engage in the digital sector. That was achieved through innovative pedagogical materials. In our activities, we used modern robotic sets, programming and open educational resources that meet the needs of the 21st-century classroom and students' interests.

Innovation environment

We made all materials developed by the project available online for free on an e-learning platform.
During the lessons, workshops and thematic school days, we used various robots, programming environments and unplugged activities in a way that they can be carried out by other schools using different equipment.
The project coordinator and the partners organised visits and workshops and facilitated the borrowing of the needed equipment.

Teachers' role

We successfully raised awareness among teachers of the benefits of using STEM practices in teaching as well as of the gender equality issues within STEAM education. This allowed them to effectively motivate girls to consider a future career in STEAM.

Impact and output

This project fostered the inclusion of teachers and students from schools in rural areas. It built the educators' ability to use robotics and coding in teaching. When it comes to gender equality it can serve as an example of good practice in using gender-neutral materials. Moreover, it contributed to building the knowledge of educational robots and STEM activities as well as their application in teaching different subjects. Finally, it raised awareness of possibilities to reduce the gender gap in the digital sector and it's an excellent example of teachers' continuous professional development best practices.
More information on Home - Robogirls

European Commission

CROATIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

3D and Virtual Reality Technologies for VET – "3D4VR"

Project Coordinator: **Juraj Dobrila University of Pula**
Project reference: *2019-1-HR01-KA202-061006*

Project partners:
- **Universitetet I Sorost Norge (Norway)**
- **Universitatea Tehnica Cluj-Napoca (Romania)**
- **Tamara Milosevic (France)**
- **Mediteranski institut za istraživanje života (Croatia)**
- **Medicinska škola Pula (Croatia)**
- **Industrijsko-obrtnička škola Pula (Croatia)**

Topic(s) addressed

The aim was to create vocational training in additive technologies, virtual reality and artificial intelligence in technology and medicine. In detail, the goal was to make VR and 3D models for learning activities in medical and industrial schools.

Target group(s)

The project involved 10 vocational medical and technical school teachers and 180 students

Methodologies

The "3D4VR" combined additive technologies, robots, and virtual reality to enhance vocational skills education and a new technology approach. Innovative teaching and learning developed technical and vocational skills. The project also incorporated blended learning combining face-to-face and online learning. Through collaboration, a 3D model for visually impaired students was created. The project consortium shared information through the eTwinning platform.

Innovation environment

The VET facilities proved to be innovation enablers by developing vocational skills and technology via additive technologies, robots, and virtual reality. The project emphasized the significance of innovative teaching and learning strategies, with blended learning providing flexible and individualized learning through both online and offline instruction. It employed innovative learning spaces, including the proactive approach in school with specialised equipment to provide inclusive and diverse educational opportunities. The project also promoted the sustainable use of available resources (such as eco-friendly filament for 3D printing), ensuring the long-term impact of innovative teaching and learning strategies.

Teachers' role

The teachers provided vocational education programs and used blended learning to help students and instructors keep up with the rapid evolution of technology. In addition, they created 3D models and apps for individuals with disabilities and shared information with global partner organizations.

Impact and output

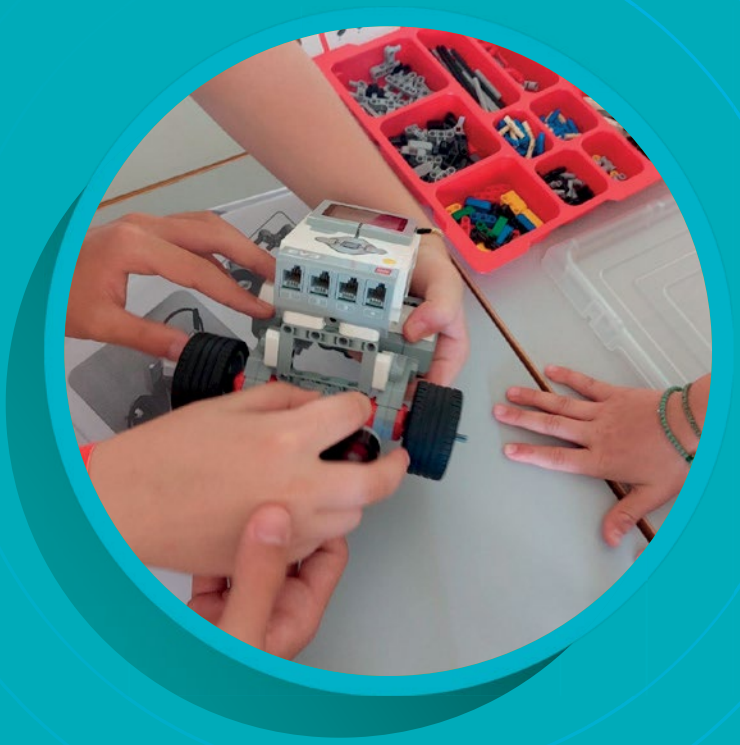
The project's unique teaching and learning methods and materials impacted vocational schools, students, and teachers. Its vocational education programmes taught students CAD modelling, 3D printing, and virtual reality to stay up with quickly changing technologies. Blended learning helped students and teachers adapt to new technology. The project's 3D models for disabled people promoted inclusion and universality, exchanging information with partner organizations globally contributed to international collaboration and best practices.
Find more information on *http://www.3d4vr.eu/*

European Commission

CYPRUS

PRIMARY EDUCATION

STEMing Together



Project Coordinator: **Mandria Primary School**
Project reference: *2020-1-CY01-KA229-065945*

Project partners:

- **SU Konstantin Konstantinov (Bulgaria)**
- **Szkola Podstawowa im. Oskara Kolberga w Ciechocinie (Poland)**
- **Radviliškio Gražinos pagrindinė mokykla (Lithuania)**
- **Istituto Comprensivo Statale "A. R. Chiarelli" (Italy)**
- **Gymnasio Valtinou (Greece)**

Topic(s) addressed

The project dealt with the existing and emerging technologies e.g. robotics and coding, as well as with lifelong learning, team work, leadership and decision making. There was also room to touch upon environmental and digital changes and developing skills needed to keep up with the changing world

Target group(s)

The participants were students 10-15 years old with fewer social and economic opportunities, and with special education needs.

Methodologies

Teaching and learning involved diverse school subjects and their relevant curriculum (mathematics, technology, science, art). Formal and non-formal teaching was applied,inclusion and teamwork proved crucial e.g. each student had an active role in the activities developed. Working in groups on project design and implementation, explanation of the results and feedback, were important within the learning process. Collaboration skills and communication attitudes were further developed. Practices were enhanced by the use of social media, mathematics and science apps and robotics software.

Innovation environment

In the experimental learning employed by the project, the use of all available spaces in the school proved essential and productive. Hands-on activities were highly engaging. To create the eco-smart house the fusion of technology and the topic of environmental issues was used to satisfying effect.

Teachers' role

Teachers involved in the project became the driving force for the project activities and then promoted new skills and experience. They eagerly worked on upgrading their own competencies and then happily shared their knowledge with their peers helping them with upskilling. It should be emphasised that the project's success was the result of the teachers' enthusiasm and hard work.

Impact and output

There has been a significant change in the approach to learning. The target groups became more open to project-based learning. The activities are now more student-centred. The awareness of diversity has increased regarding other cultures and groups with different educational needs. Thanks to the inclusive character of the activities also students with fewer opportunities were given the chance to travel and meet their peers from other European countries and take part in innovative workshops. The project's results were presented and explained in a final conference that included parents, teachers and the local community.

European Commission

CYPRUS

SECONDARY EDUCATION

FemSTEAM Mysteries: A Rol-Model Game-Based Approach to Gender Equality in STEAM

Project Coordinator: **American Academy Nicosia**
Project reference: *2020-1-CY01-KA201-066058*

Project partners:
- **European University (Cyprus)**
- **Challedu(Greece)**
- **La Salle-Buen Consejo(Spain)**
- **Technische Hochschule Koln (Germany)**
- **Doukas School (Greece)**

Topic(s) addressed

By using pioneer role models and game-based learning we effectively demonstrated that STEAM careers are as accessible, meaningful, legitimate, and rewarding for girls as they are for boys, and to cultivate their aspirations for such fields.

Target group(s)

Our project involved boys and girls 12-15 years old as well as STEAM teachers, teaching educators and researchers.

Methodologies

The five cross-curricular STEAM scenarios featured a collaborative approach and inquiry-based learning. It combined multiple STEAM subjects, and was designed to be accessible, nuanced, and meaningful to all students. Non-formal, interactive and game-based learning built practical problem-solving skills in a virtual environment, while more formal tasks encouraged critical thinking. The role models were presented to promote empathy while challenging career stereotypes.

Innovation environment

The school invested significantly in the project, with teacher training, a whole-school presentation and access to facilities as needed. Departments supported each other: art's graphic design lessons led to computing's advertising poster, English added depth to project scenarios through creative writing, and so on. Game-based learning in the virtual environment of the FemSTEAM Mysteries game ran comfortably on older hardware without needing VR headsets. Many tasks were submitted digitally to minimise paper use, and the school building was used as the subject of the mapping task.

Teachers' role

The project owes much of its success to its experienced professionals and their excellent digital literacy skills, cultural awareness, creativity, empathy, and subject knowledge. Teachers were given the freedom to apply a novel approach that takes the focus offfacts and tasks emphasising the life and example of a carefully selected role model and inviting students to draw their own personal conclusions and life lessons.

Impact and output

The project was promoted and discussed by the whole school, and educators in Cyprus and abroad have pledged to deliver our scenarios in communities with ingrained attitudes on gender and careers. A quasi-experimental study, conducted in collaboration with EUC, showed a significant increase in female participants' confidence in their STEM abilities. Several female students expressed they could follow their STEAM interests, just like the role models had.

European Commission

CYPRUS

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Acquisition of key competencies and international transfers of professional experience in new technologies in engineering

Project Coordinator: **A' Technical School of Limassol**
Project reference: *2018-1-CY01-KA116-046744*

Project partners:

- **West College Scotland, Clydebank Campus, Glasgow (United Kingdom)**
- **Bildungsgesellschaft mbH Pritzwalk, Berlin (Germany)**
- **Technical Educational Institution Thessalias, Larisa (Greece)**

Topic(s) addressed

We wanted our students to be familiar with technology systems so they could strengthen their position in the market.

Target group(s)

Participants were 14 students attending the motor vehicle department, 30 from mechanical engineering and 8 from furniture department.

Methodologies

The hosting organizations (WCS College) were chosen as they had the necessary equipment such as CNC programming, digital diagnostics and simulators on hybrid and electric cars, as well as qualified staff.
The participants attended the college courses, both theoretical and workshops.
They became better acquainted with the teaching and learning methods together with the opportunity to enhance the cultural experience.

Innovation environment

We took the learning far beyond the classroom facilitating visits to the Rolls Royce factory where engines are assembled and tested. The participants went also to see the Nissan facilities including the academy where they could observe the problem-solving practices. Those visits were of vital importance to the students as there are no such facilities in their home country, and for many of them, this proved to be a lifetime experience.

Teachers' role

Daily communication between teachers and students improved the program to the maximum. The participants were under constant guidance of the accompanying teachers as well as the trainers of each host organization who took over the education of these students in the specific subjects. The instructors of each host organization were very supportive in order to achieve the set goals.

Impact and output

Regardless of specialization, the students understood the necessity of continuously upgrading the technology to respond to industrial needs. They significantly improved their way of thinking by solving various problems.
The results in the cognitive field and in the improvement of skills and abilities of the beneficiaries were evident.
The need for continuous learning at a professional level as well as the imperative need for acquisition of modern equipment were understood.

European Commission

CZECHIA

EARLY CHILDHOOD EDUCATION AND CARE

The magical years of life: pre-school

Project Coordinator: **Mateřská škola 4 pastelky**
Project reference:
2021-1-CZ01-KA122-SCH-0000155117

Project partners:

- **Cengiz Egitim Proje Turizm Danismanlik Tasimacilik Ltd. Sti (Türkiye)**
- **Kidzplay (Austria)**

Topic(s) addressed

The project centred around innovation, technology and informatics.

Target group(s)

The activities were designed for a group of preschool teachers.

Methodologies

The kindergarten made extensive use of visualization of activities and pictograms, which enabled children of a different mother tongue to better navigate the daily routine and activities. They tried to include cooperative learning in groups of children by dividing the class into smaller groups using the potential of assistants. The kindergarten tried to use digital tools such as microscopes and robotic toys.

Innovation environment

The school organized a discussion with the teachers of other kindergartens with a presentation that they created from photos and realities of the visited schools, at their pedagogical council. This way, they tried to spread innovative methods further in their environment. They also organized a discussion with the teachers on the same topic. The educational environment was extended to include school gardens and the outdoor equipment was supplemented.

Teachers' role

The dedicated mentors played an important role in passing their experience on to beginning teachers. The kindergarten is intensively dedicated to the planning and implementation offurther education of pedagogues in the areas of methodology, personality, and ICT. It pays attention to working with gifted children training pedagogues in accredited organizations to be able to recognize and develop giftedness. Teachers learn from each other during mutual visits and regularly exchange experiences at meetings and pedagogical councils.

Impact and output

The project succeeded in improving the quality of the educational offer for preschool children, and working conditions for children and teachers based on the experience gained. During the duration of the project, new methods were applied, e.g. the establishment and production and subsequent daily use of pictograms, visualization of all activities with regard to the needs of children with a different mother tongue and also with regard to integrated children who need special pedagogical approaches.

European Commission

CZECHIA

PRIMARY EDUCATION

Innovation in teaching

Project Coordinator: **Základní škola Břeclav**
Project reference: *2019-1-CZ01-KA101-060772*

Project partners:
- **Centre of English Language Studies Limited (Ireland)**
- **Teacher Academy Ireland Limited (Ireland)**

Topic(s) addressed

This project successfully tackled subjects like innovation, technology and informatics.

Target group(s)

The project was conceived with school teachers and students in mind.

Methodologies

As part of the entire project, teachers got to know and subsequently implemented new teaching methods, language games, study platforms and applications, especially Genially, Nearpod, Jeopardylab and others. The most successful findings were presented to colleagues at the school and to pedagogues from other institutions. The final product of the entire project was the Interactive Guide to Ireland. It was prepared in modern programs and applications that offer students a wide range of opportunities to learn and practice their language and digital competencies, while they are linked in multidisciplinary tasks.

Innovation environment

We employed the school's available spaces to the utmost using corridors, special classrooms, atriums and vestibules, or school grounds to expand the classroom space. T he school have also successfully innovated virtual and digital environments for students. Thanks to the implementation of the project, the teachers also increased their digital competencies and were able to creatively use the acquired ICT tools.

Teachers' role

By implementing the project, we wanted to re-motivate pedagogues to continue their education and gain knowledge within the framework of new trends in foreign language teaching IT and thus to get closer to modern European trends in teaching. Currently, teachers cooperate with each other in the creation of CLIL materials, some classes are even conducted in tandem, precisely for the reason of mutual enrichment.

Impact and output

All teachers mastered communicating in English which enabled them to work at the European level. The selected English teachers improved the key competencies and skills necessary to teach a professional subject using the CLIL method, and this also led to their professional development. The teachers' stay in Ireland led to the creation of an interactive guide for pupils. Furthermore, the course participants organised training for other Břeclav elementary schools and disseminated the results of good practice, thereby increasing their school's prestige in the region and consolidating its good name.

European Commission

CZECHIA

SECONDARY EDUCATION

From Alcoy to Kutná Hora: European Heritage, knowledge society and sustainable tourism

Project Coordinator: **Církevní gymnázium**
Project reference: *2018-1-CZ01-KA229-048044*

Project partners: **IES Andreu Sempere (Spain)**

Topic(s) addressed

The project revolved around topics of innovation, technology and informatics.

Target group(s)

School teachers and students were the focus of all project activities.

Methodologies

An innovative multidisciplinary approach was adopted, which consists of organically connecting different subjects and teachers (language, foreign languages, media education, technology, history, art, etc.) based on three fundamental pillars: communicative competence, digital competence and knowledge of local cultural heritage.
The eTwinning platform was a key resource for remote working in the project. They used many other digital resources for educational purposes (Kahoot!, Quizlet, etc.) or for project implementation.

Innovation environment

The participants worked not only in traditional classrooms but also in the computer room and similar spaces.
IES Andreu Semper has a radio studio that was very useful for recording podcasts. The layout of the classrooms was adapted to different ways of working. As part of the project, they collaborated with various public and private institutions, especially those connected with local tourism.

Teachers' role

The teachers focused on innovation in relation to the three main pillars of the project. The use of new digital tools to implement the project was a great opportunity to innovate and introduce new ways of working in the classroom (creation of digital products, use of eTwinning platform) or to strengthen those already tried (use of Quizlet, Kahoot!, Classroom, etc.). The development of teachers' digital competencies provided them with the means to expand their didactic repertoire.

Impact and output

Because the final products are tourist leaflets, they contribute greatly to the direct dissemination of the project and thus to sustainable tourism in the regions.
The leaflets were used to promote the local cultural heritage among tourists in cooperation with the Sedleck parish, the Kutnohorsk parish or the Consejería de Turismo de Alcoy. They were used to present school projects during open days. For the Czech school, the project was an opportunity to create accounts on Twitter and Instagram. Together with eTwinning, a blog was used as one of the forms of organizing work and disseminating the project.

European Commission

CZECHIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Health Care Professional Foreign Internship for students and teachers

Project Coordinator: **Střední zdravotnická škola a Vyšší odborná škola zdravotnická**
Project reference: *2019-1-CZ01-KA102-060817*

Project partners:
- **Masti e Bartoli s.n.c. (Italy)**
- **Prótesis del Sur S.L and Torrecillas Prótesis Dental (Spain)**
- **Dentalforma (Spain)**

Topic(s) addressed

The project addressed the topics of innovation, ICT, technology, informatics and health care.

Target group(s)

This project was conceived to benefit our healthcare teachers and learners with a special focus on dental hygienists, medical laboratory assistants and dental technicians.

Methodologies

A student in the field of dental technician participated in a one-month-long internship in Italy and carried out professional practice in a dental laboratory.
The laboratory was known for its use of 3D programs for the modelling of dental prostheses followed by CAM fabrication. She gained direct experience with preparation, data entry, software and the entire workflow needed for this specific area of ICT use in dental practice.

Innovation environment

Teachers participating in vocational education and training internships abroad shared gained experience in staff meetings. ICT teachers were included in the integration of new technologies and helped discover how to incorporate these technologies into the learning programs.

Teachers' role

Vocational education and training teachers became reference points sharing gained experience and knowledge with other learners and other teachers. They regularly carry out discussions on possibilities of how to integrate new methods and technologies in teaching.

Impact and output

New skills and practices gained during the internship were presented to other students and teachers in the school. Thanks to the experiences gained in Italy, 3D modelling and printing method in dental care was adapted into the school curriculum and is now an integral part of teaching and studying. In the year following the project, students managed to enter and win the prize of the best educational project in the competition Prusa Education Programme with their dental impression tray model.

European Commission

DENMARK

EARLY CHILDHOOD EDUCATION AND CARE

Computational Thinking in Early Childhood Education

Project Coordinator: **Læring, Kultur og Fritid i Middelfart Kommune**
Project reference: *2019-1-DK01-KA201-060176*

Project partners:

- **Utbildningskontoret, Norrköpings Kommun & Diamanten förskol (Sweden)**
- **Lucas onderwijs & Cosmicus basisschool Den Haag (The Netherlands)**
- **Education Development Trust (operating as London CLC) & Stockwell Primary School (United Kingdom)**
- **Tampereen Kaupunki & Irjalan päiväkotu (Finland)**
- **Båring Børneunivers (Denmark)**

Topic(s) addressed

The project centred around computational thinking, digital competencies and inclusion.

Target group(s)

The project's programme was designed for preschool pedagogical staff and executives as well as preschool children 3-6 years old. It involved also policy makers and local authorities.

Methodologies

The ideas for carrying out the programme involved action-based research, hands-on learning and application of methods observed in other countries trying to incorporate partners' best practices on the local ground. The activities were based on cooperation with other schools with the example of "learnathons" involving primary school children.

Innovation environment

The project used an innovative and structured strategy for a new learning area. Different approaches developed by each of the five partner countries were shared with the other partners to be implemented outside of their immediate environments and entail techniques such as programming expertise from the UK preschool system, the practical "maker education" method from The Netherlands, the discovery and collaboration approach from Finland, the aesthetic and creative approach to using technology from Sweden, and the social pedagogical and outdoor learning approach from Denmark.

Teachers' role

The preschool educational staff benefitted greatly from the project's wide scope of international initiatives. To make it sustainable an international network was created through which the teachers will be able to share freely all the resources needed for their future progress. Some of the attains included a deeper knowledge of computational thinking, innovative pedagogic methods for developing creative and active learning.

Impact and output

The transnational nature of the project allowed each partner to apply methods developed in other countries' contexts and to learn from best practices outside of their immediate environments. The project resulted in establishing clear evaluated and documented knowledge, approaches and pedagogies for the teaching and learning of computational thinking in Early childhood. Results included also a shared website where all outcomes and resources are accessible and disseminated to target groups at a local, regional, national and international levels. More information on co-make - CO-MAKE.

European Commission

DENMARK

PRIMARY EDUCATION

Digital Learning Across Boundaries – Developing Changemakers

Project Coordinator: **Professionshojskolen University College Nordjylland**
Project reference: *2019-1-DK01-KA201-060283*

Project partners:

- **The University of Northampton Higher Education Cooperation (United Kingdom)**
- **Northampton International Academy (United Kingdom)**
- **Hogskolen I Ostfold, (Norway)**
- **Råde Kommune (Norway)**
- **Hogeschool West – Vlaanderen Howest, (Belgium)**
- **GO! Middenschool Brugge-centrum (Belgium)**
- **Universidad de Santiago de Compostela (Spain)**
- **Vestbjerg Skole (Denmark)**

Topic(s) addressed

Technology and digital literacy were in the focus centre of the project. It also touched upon innovation, creativity, collaboration and entrepreneurship. All of those topics were explored through playful learning.

Target group(s)

University lecturers, students and school teachers, along with their school pupils, across five European countries were of particular interest to the project's designers.

Methodologies

The key topics were tackled through digital learning including virtual reality and AI technologies in order to blend physical and digital environments and thus provide powerful opportunities for international cooperation. That ensued creating international teams for planning pedagogical strategies and organising three international days in the school to develop and test ideas.

Innovation environment

Social innovation activities brought about the dissolving of intercultural boundaries setting the participants on a good way to become agents of positive world change. To deal with three 'learning across boundaries' challenges, local cultural consultants were involved. The challenges were physical, relating to attaining new skills, personal - which were about learning through performance and public speaking and finally environmental which took the students outside traditional classrooms utilising unusual, inspiring locations.

Teachers' role

The project activities were aimed at establishing a community of teaching professionals who would share their experiences learning together and enriching each other's understanding of the project topics and the world around them.

Impact and output

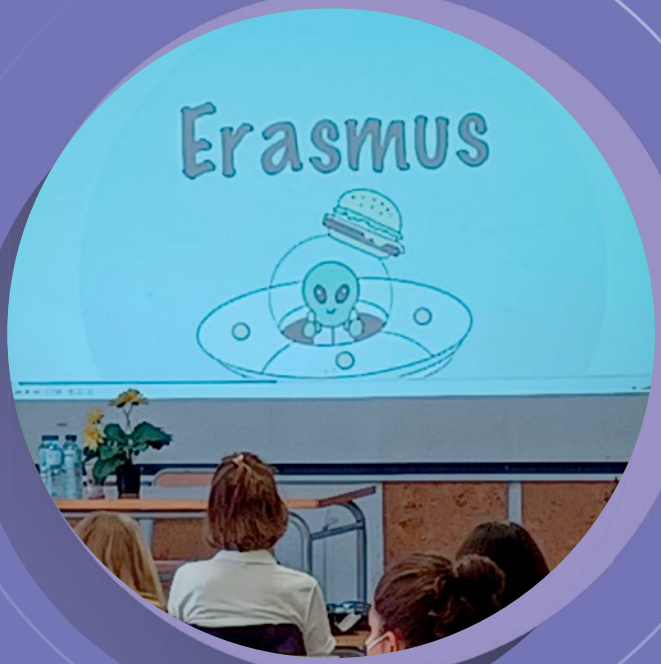
The project had an impact in an international context through the rich learning resources provided by the intellectual outputs and via the co-creation of new knowledge in the field of technology-supported social innovation education, afforded by the international online community of practice.
Some of the outputs included an open OER website, three eTwinning project kits, three open online courses based on innovative digital technologies, a series of TED-style talks pitching collaborative projects and prototype solutions, a framework for supporting international collaboration days with digital technologies and a toolkit for developing changemakers in initial teacher training. More information on DLAB2 – Digital Learning Across Boundaries: developing changemakers (northampton.ac.uk)

European Commission

DENMARK

SECONDARY EDUCATION

Future Food 2021 – Culture and Resources



Project Coordinator: **Techcollege**
Project reference: *2018-1-DK01-KA201-047104*

Project partners:

- **BBS1-Mainz (Germany)**
- **Graz International Bilingual School (Austria)**
- **Instituto Educación Secundaria CARRÚS (Spain)**
- **Lycée Niepce Balleure (France)**

Topic(s) addressed

The project was based on natural science. It also addressed EU citizenship, EU awareness and democracy. Health and wellbeing as well as sustainability habits regarding food were the appropriate complement as the focus points. Finally, combating stereotypes and xenophobia completed the programme.

Target group(s)

We aimed to involve science students 16-19 years old and teachers in partner schools.

Methodologies

Carrying out the project we used various pedagogical approaches. Flipped classroom and problem-based learning (PBL) are the first ones to be mentioned. Those were accompanied by students' self-evaluation, learning strategies and development e.g. Vygotsky. The goal was to develop students' and teachers' perspectives and their reflections on how such a fundamental thing as food encapsulates so many different views and subjects, both in an educational, international and cultural setting.

The project worked with food from past to future in various curriculum subjects as well as with different pedagogical approaches in each workshop, involving all teachers in the teaching task, e.g. "Meet and Teach".

Innovation environment

The project was about strategic partnership with a focus on innovation and the exchange of good practices. The efforts were aimed at three levels in all partner schools. A strategic, pedagogical and educational. The way the partners have managed to intertwine many elements was certainly innovative and complementary to previous projects.

Teachers' role

Through a "Meet and Teach" approach we aimed to improve teachers' knowledge and experience with new pedagogical approaches that they could bring back to their homeschools and implement where possible. Differentiation and dynamics in teaching should lead to a lift in intercultural competencies and language skills.

Impact and output

The project design raised motivation to learn and helped combat stereotypes and xenophobia. At the same time, it produced more eco-responsible citizens. Each theme resulted in learning outcomes, products and shared knowledge through IT. The project also aimed to work with new and innovative teaching tools, especially based on IT and media.

European Commission

DENMARK

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

ZBC – Travel 4 Future

Project Coordinator: **Zealand Business College**
Project reference: *2019-1-DK01-KA102-059972*

Topic(s) addressed

The project ventured to set up an international strategy for a large and diverse organisation and gradually hand over the ownership of the international activities to the professional departments.

Target group(s)

The project involved over six thousand learners across 42 educational institutions in Food, Mercantile, Industry and Construction, Green areas, Transport, Service and Health, and the pedagogical staff.

Methodologies

ZBC implemented job shadowing and other staff activities such as bringing in teachers and experts from partnering schools to share formal knowledge and strengthen non-formal relations, networking and internationalisation at home. Exploring these possibilities resulted in an increasing demand for mobility among staff.

Innovation environment

ZBC uses job shadowing to learn more about new partner schools and explore the possibilities for future implementation of learners' mobility in new educational areas and subjects.
From now on, a number of ZBC staff, municipality staff and representatives from the local educational committees will each year get the opportunity to go on job shadowing so that they can gain knowledge and experience that they can later apply for the benefit of the Danish community.

Teachers' role

The teachers performed their assessment based on measures adapted to the duration of learners' stay on the mobility. For example, two weeks of residence required the use of ECVET assessment while shorter periods used "soft" measures like punctuality, professionalism, a degree of interaction with the locals and independence.

Impact and output

Through job shadowing activities, ZBC explored new partner schools in the electrical and landscape gardening areas. Working on the project learners experienced professional as well as personal development.
The international competencies that each learner (including those with fewer opportunities) acquired will undeniably contribute to safeguarding their professional future, as mobility, willingness to adapt, language skills and professional capacity are highly demanded and appreciated on both the Danish and international labour market.

European Commission

ESTONIA

EARLY CHILDHOOD EDUCATION AND CARE

Learning is interesting and fun

Project Coordinator: **Tallinna Suitsupääsupesa Lasteaed**
Project reference: *2018-1-EE01-KA229-047069*

Project partners:

- **Mahmutlar 50. Yil Ahmet Kesoglu Ilkokulu (Türkiye)**
- **École maternelle Tordo (France)**
- **Escola parc del Saladar (Spain)**
- **Nipiagogio Rizariou Trikalon (Greece)**

Topic(s) addressed

Our goal was to improve teachers' digital skills and build students' critical thinking through robotics and programming using hands-on learning.
We also tackled innovation of learning and evaluation processes by using technology.

Target group(s)

We successfully engaged a large number of participants comprising 932 children and 94 teachers.

Methodologies

In order to achieve our objectives, we effectively employed a hands-on approach creating a series of practical activities with the use of educational robots, applications and websites. During smartweeks we used technology to carry out learning for children.
The eTwinning platform was used with good effect. Children had the opportunity to make their first steps in coding, programming and robotics.

Innovation environment

Children were given a chance to cooperate in small teams and learn to take more responsibility. Using technology in learning created a good environment for exploring and experimenting. It made children more active and motivated learners. The teaching process became more exciting and children were able to learn through playing as opposed to passively sitting at the desk and listening.
Educational robots opened new possibilities to take learning from the classroom outdoors.

Teachers' role

Teachers who participated in our project gained new knowledge and competence in using cutting-edge technology and educational robots, and learned how to plan and conduct learning activities that involve new technology. They cooperated in preparing practical workshops conducted during learning, teaching and training events. During Smartweeks teachers shared their experiences and activities inside all institutions with other teachers.

Impact and output

Technology and educational robots became permanently present during learning activities. Educational robots are now used during outdoor activities. The handbook created by teachers is actively used in all classrooms and shared outside partner institutions. After the project ended we created a digital children's evaluation and school maturity assessment game for tablets. There is a plan to spread the evaluation interactive game and also to create new games for other age groups. Our endeavour was nominated as a successful project and given the Golden Digital Apple prize at the EU projects local level. More information is available at: *https://twinspace.etwinning.net/75840/home*

European Commission

ESTONIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Curriculum Material Development in Vocational Education Through 3D Printing

Project Coordinator: **Pärnumaa Kutsehariduskeskus**
Project reference: *2019-1-EE01-KA202-051698*

Project partners:

- **Association of Kayseri Education Culture and Youth (Türkiye)**
- **Kayseri/Melikgazi-Central Vocational and Technical Anatolian High School (Türkiye)**
- **Practical Training Center in Jastrzebie-Zdrój (Poland)**
- **Budapest Complex Vocational Training Center Weiss Manfréd (Hungary)**
- **Tallinn University of Technology - TalTech (Estonia)**

Topic(s) addressed

We ventured to create a complete 3D printing experience with tutorials, self-learning videos, a 3D dictionary, and classroom materials. Whether you're a beginner or an advanced user, we support your 3D printing journey.

Target group(s)

We cater to both teachers and students, empowering educators to enhance their teaching with 3D printing and guiding students as they embark on their 3D printing journey.

Methodologies

Our project has reached Estonian vocational schools, free schools, and interest groups through collaboration. We're partnering with the Estonian Inventors' Union and the Academy of Engineering. Our 3D printing materials benefit teachers and students, and we've introduced a 3D printing elective for various specialities. Our 3D classroom is evolving with six printers and plans to add a 3D scanner and drawing computers for enhanced learning.

Innovation environment

The 3D classroom, with six printers, offered endless possibilities for students and teachers. It fostered innovation, particularly in prototyping and reverse engineering. We plan to expand it with a 3D scanner and drawing computers to create a complete learning laboratory. Innovative learning environments with tools and technology promote hands-on, project-based learning, fostering critical thinking and creativity.

Teachers' role

Teachers actively pursued professional development to enhance their innovative teaching skills, benefiting students with engaging learning experiences. In this evolving educational landscape, teachers who stay updated, including incorporating 3D technology, are better equipped to meet students' changing needs, demonstrating their dedication to high-quality education and inspiring innovative thinking.

Impact and output

Student interest in 3D printing grew, attracting learners from various disciplines. This enthusiasm extended beyond our school, fostering collaboration with educators in Pärnu and gaining international attention, notably in Turkish schools.
In conclusion, the popularity of 3D printing among students rose, promoting collaboration among educators. Our website's impact spanned across borders, reaffirming the importance of 3D printing in education. Partner schools achieved their objectives and built strong relationships as a result of our project.
More information is available at: *https://www.project3dvet.eu/*

European Commission

FINLAND

EARLY CHILDHOOD EDUCATION AND CARE

Sustainable Future – learning from life to life

Project Coordinator: **Muotialan päiväkoti**
Project reference: *2019-1-FI01-KA229-060684*

Project partners:
- **Kämmenniemen päiväkoti (Finland)**
- **Materska skola Nad Parkem (Czechia)**
- **Osnovna sola Brusnice (Slovenia)**
- **Washingborough Academy (United Kingdom)**

Topic(s) addressed

There were six themes that the project dealt with: food education, recycling and sorting, waste handling, energy production and saving, water and global warming.

Target group(s)

The focus group was both teachers and children and indirectly, also their parents in five participating schools and kindergartens.
Approximately 880 children and 150 personnel benefited from the activities organized by the project.

Methodologies

The core activities comprised six transitional meetings in which participants collectively planned the activities and shared previous experiences. The gatherings centred around professional discussions and debates. For recording the project's development and sharing the results we used the eTwinning platform and SWAY presentations.

Innovation environment

The indoor and outdoor spaces of schools and kindergartens were used in a variety of ways. All facilities were put into use, for example, a tree was painted on the wall of the dining room, whose leaves number increased as the food waste produced decreased. School principals, teachers and other staff, kindergarten managers, teachers, nannies and partially also kitchen staff and cleaners participated in the project activities.

Teachers' role

The teachers learnt how to deliver various subjects to the children according to their age level. In this case, abstract topics were discussed with very young children using new, concrete methods that are appropriate for their age.
The educators fed new ideas to each other during the visits when they could follow each other's teaching.
Through the visits to different countries, they gained a new perspective on how issues of a sustainable future are managed in Europe.

Impact and output

The most important achievement of this project was the establishment of a sustainable lifestyle for all employees, children and families who were present during the project. Although the values of sustainable development were important to all the participating countries before, they became even clearer during the project. We all gained a deeper understanding that small, concrete things really matter. The benefits of the project will also be visible in the future. Green thinking and lifestyle will continue in every school and kindergarten.
Teaching children about sustainable future has become a permanent operating method.

European Commission

FINLAND

PRIMARY EDUCATION

Mutala school – virtually tuned future school

Project Coordinator: **Mutalan koulu**
Project reference: *2019-1-FI01-KA101-060351*

Project partners:
- **EuroCompetent (Croatia)**
- **Alcashine Empowerment Center Lda (Portugal)**
- **ETI Executive Training Institute (Malta)**

Topic(s) addressed

The project revolved around ICT, AI, robotics, coding and programming, and virtual reality. Soft topics comprised positive pedagogy and inclusion as well as transitive skills and global education.

Target group(s)

Our initiative was created for teaching staff, including interns, the students and their families. Indirectly it also regarded other schools in Finland and Europe.

Methodologies

We developed multidisciplinary learning modules and ICT-themed days for the whole school, as well as e-twinning projects with our new partners.
The students created virtual learning environments by using CoSpacesEdu applications and made virtual presentations of the school and its spaces with 360 cameras. They also built an open Escape Room in the school environment.

Innovation environment

Teachers adopted innovative teaching methods through training, leading to improved assessments and a more inclusive environment.
During the project, language skills, transversal competencies, and participation in European platforms grew. The new school principal recognized the value of international activities, enhancing pedagogical leadership.
Students thrived in an innovation-focused setting, gaining virtual technology skills and engaging in cross-disciplinary projects, fostering independent learning and creativity.

Teachers' role

Participating in courses supported the professional growth of teachers. They recognised the importance of the project which motivated them to expand their toolbox of teaching methods and practices. The cooperation with other European countries resulted in building networks that will prove effective in the future. Finally, the participating educators became the agents of innovation as they happily shared their skills carrying out training sessions for other teachers regionally and nationally.

Impact and output

The project brought together the whole school's community. With the help of the international coordinator the schools in the region gained invaluable information about internationalisation which won't be without benefit for their future. The educators' community was enriched with new knowledge and fresh ideas for teaching shared by the pedagogues participating in the project.

European Commission

FINLAND

SECONDARY EDUCATION

Understand technology, understand yourself, understand your learners

Project Coordinator: **Siilinjärven lukio**
Project reference: ***2018-1-FI01-KA101-046876***

Topic(s) addressed

The project revolved around technology and digital learning environments. It focused its efforts on developing and diversifying skills that would lead to innovation and challenges related to the use of communication tools and the virtual world.

Target group(s)

The initiative was addressed mainly to the teaching staff and students at Siilinjärvi Upper Secondary School.

Methodologies

We actively employed innovative methods like Learning Café, Marshmallow challenge, and Popplet, along with fresh perspectives such as positive psychology, in our daily school routines.
These approaches were instrumental in adapting to the changing educational landscape and enhancing students' emotional intelligence. We also introduced new technologies like virtual reality glasses to make learning more engaging and anticipated further advancements based on the project's transformative methods.

Innovation environment

Our Upper Secondary School successfully created a very positive atmosphere of change and members of the work community eagerly try out new work methods and tools. Electronic tools provide a fertile foundation on which it is easy to build new, innovative structures.
Combining the old and the new, boldly experimenting with combinations together with the students, can turn into smoothly functioning solutions that inspire and motivate different learners.

Teachers' role

The teachers have adopted new working methods which have naturally become part of the teaching. It has diversified the activities that take place in the classroom, which in turn helps different learners to find learning methods that suit them. The new skills have encouraged both teachers and students to experiment and combine different ways in an innovative way.

Impact and output

The project's impact exceeded expectations, positively influencing language skills, self-worth, regional identity recognition, school strengths acknowledgment, and community resilience. We adopted various technological tools, some experimental, some now integrated into our practices. These tools continue to spread beyond our school as individuals who moved to other schools share their acquired skills. The project's outcomes remain central to our teaching, planning, and daily community life, sparking ongoing discussions among teachers.

European Commission

FINLAND

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Sustainability-driven Entrepreneurship (SdE)

Project Coordinator: **Seinäjoen koulutuskuntayhtymä Sedu**
Project reference: *2019-1-FI01-KA202-060906*

Project partners:

- **Apro Formazione S.c.a.r.l. (Italy)**
- **Berufsbildende Schulen des Landkreises Nienburg/ Weser (Germany)**
- **Departament d'educació- generalitat de Catalunya (Spain)**
- **Hogeschool Gent (Belgium)**
- **Kurikka upper secondary school, (Finland)**
- **Seinajoen Ammattikorkeakoulu Oy (Finland)**
- **Stichting voor christelijk beroepsonderwijs en volwassen educatie Friesland/Flevoland (The Netherlands)**
- **WSX Enterprise Limited (United Kingdom)**

Topic(s) addressed

The project effectively covered sustainable entrepreneurship and development, entrepreneurship education and innovation.

Target group(s)

In the project's interest were the groups of teachers and students, educational institutions and companies.

Methodologies

The SdE study unit, with 80+ training materials and 27 business cases in three levels, was designed for both classroom and online use. Students used these materials to create sustainable business ideas and competed locally with real-world challenges posed by companies. We also incorporated virtual reality and Teams for some of the competitions. To support teachers, a handbook was provided, offering implementation plans, evaluation criteria, and guidance. It also included methods for assessing students' prior knowledge and the study unit's impact through surveys.

Innovation environment

All learning materials were accessible on the project's website, enhancing the school's learning environment. The SdE study unit aimed to boost students' understanding of entrepreneurship, sustainable development, and innovation skills, enabling them to craft sustainable business concepts and corresponding plans. Local competitions, exemplified in Finland, fostered an innovation-rich environment, uniting students from diverse educational backgrounds, including higher education institutions, vocational education and training organisations, and high schools. They had the chance to test their business plans by forming mini-companies or joining cooperatives.

Teachers' role

Teachers who organized local pilots not only observed the project's impact but also found it to be a valuable learning experience for themselves. They emphasized the role of peer learning throughout the project, fostering innovation, teamwork, and pitching skills. Teachers led local pilots and coordinated competitions with companies and fellow staff, all contributing to achieving project goals.

Impact and output

The project's impact grew steadily through collaboration with diverse European organizations. Teachers' discussions on sustainable entrepreneurship and the sharing of best practices notably improved their skills and enriched educational resources. Impact surveys revealed significant learning for both students and teachers during the pilot. Educational institutions gained skilled staff and new materials, while companies received valuable business ideas from competitions, showcasing the project's multifaceted impact.
More information is available at: *https://sdeproject.eu/*

European Commission

FRANCE

EARLY CHILDHOOD EDUCATION AND CARE

An innovative and safe playground for our students

Project Coordinator: **Ecole maternelle de Viard**
Project reference: *2020-1-FR01-KA229-080229*

Project partners:

- **Liceul teoretic "Lucian Blaga" (Romania)**
- **Ecole primaire Joseph Reimonenq, Guadeloupe (France)**
- **Ecole élémentaire Raphaël Cipolin, Guadeloupe (France)**

Topic(s) addressed

The project addressed the use of new technologies like eTwinning and focused on fostering entrepreneurial skills. It also offered a lesson on democracy for children and the history of education.

Target group(s)

The project addressed the nursery school pupils, 2-6 years old, as well as the teaching staff, the stakeholder representatives and the parents.

Methodologies

The project has driven significant changes in key skills, shifting children's attitudes towards peers and fostering informal bonds among them. This trust and camaraderie facilitate seamless cooperation within groups, while promoting learners' active role in shaping their personal development through shared guidelines for behaviour and cooperation.

Innovation environment

The learning environments were implemented following the training of playtime ambassadors. These diverse facilities acted as a driving force for this training, underscoring the necessity of establishing regulations to ensure everyone's enjoyment of the games without concerns.
These regulations were subsequently integrated into various areas of learning.

Teachers' role

The teachers served as a guide, leading the child to construct their universe while also acting as a mediator in different situations. Encouraging peer cooperation to address challenges, the teachers adapted their practices to empower the child in actively managing their relationships with others.

Impact and output

The influence on the target group has fostered personal growth and learning. Empathy experienced significant growth within the school, fostering mutual support and enhancing communication and receptiveness towards others. Due to a colleague's pregnancy, numerous substitutes engaged in the project and found its concept intriguing. Participating parents further disseminated this innovative approach, creating a ripple effect across the entire school community that enriched the learning environment.

European Commission

FRANCE

PRIMARY EDUCATION

Program(ed) to succeed

Project Coordinator: **École Anne Frank - Jean Moulin**
Project reference: *2020-1-FR01-KA101-078146*

Project partners:

- **Bilingual School Sa Graduada of Minorca, Port Mahon (Spain)**
- **European School of Varese (Italy)**
- **School Camino de la Villa, Tenerife, La Laguna (Spain)**

Topic(s) addressed

The project successfully dealt with transdisciplinary integration of digital technologies into teaching. It covered science, robotics, arts and culture with a special focus on sustainable development.

Target group(s)

A group of seven teachers were involved representing the school's three learning cycles.

Methodologies

The methods used centred around developing key competencies in the multidisciplinary context. They promoted inclusion, participation and cooperation taking special care about learner's active role and creativity. This was achieved through innovative use of digital tools.

Innovation environment

The project has created a conducive environment for cross-curricular endeavours. It enables partner schools to engage in cross-disciplinary teaching using digital tools and incorporating English as a foreign language. One notable achievement is the collaborative project on sustainable development, carried out in a European partnership.

This involved students from different schools, including one in Barcelona and another in Chios, Greece. Through digital correspondence, students explored ecological themes, fostering cross-cultural connections while utilizing digital platforms effectively.

Teachers' role

Throughout the series of school visits, educators had the opportunity to witness the creative integration of digital technologies into cross-curricular initiatives. Notably, they observed the application of a project management methodology rooted in the STEAM pedagogical approach. Furthermore, specialized training courses played a pivotal role in enhancing teachers' language proficiencies. These courses catered to various linguistic needs, including English and Italian. Importantly, these training sessions deepened educators' comprehension of embedding foreign language instruction within subject teaching paradigms.

Impact and output

The project has united the teaching team around the school's European development plan. The project's first correspondence with European schools on sustainable development emerged from encounters during funded exchanges. This momentum led to the mobilization of the team to draft an application for Erasmus accreditation, which was approved.
The main aim of this project was to maintain an educational vegetable garden involving the entire educational community. It will be used for cross-curricular activities based on the STEAM teaching approach and using various digital technologies.
It will be run in partnership with European schools in Spain, Greece and the Netherlands.

European Commission

FRANCE

SECONDARY EDUCATION

Innovative technology in learning and teaching process

Project Coordinator: **Collège Albert Lougnon**
Project reference: *2019-1-FR01-KA101-061899*

Project partners:

- **Lycée d'enseignement général et technologique Pierre Bouvet, La Réunion (France)**
- **OGEC Lycée Cluny, La Réunion (France)**
- **Europass Teacher Academy (Italy)**

Topic(s) addressed

The main topics addressed by the project were ICT- new technologies, digital competence, and new innovative curricula. It focused on ICT and digital tools, with the aim of developing new skills.

Target group(s)

The target group comprised a group of 2-3 educators specialising in teaching pupils from disadvantaged socio-economic backgrounds.

Methodologies

Initially, applicants sorted GDPR-compliant applications to enhance student learning. These tools were used to create semi-digital Escape Games, energize revisions, and adapt assessments. They proved crucial for COVID-19 distance courses. The eTwinning platform and Twinspace facilitated collaboration.

Innovation environment

The project involved pupils from disadvantaged socio-economic backgrounds from three schools on Reunion Island and an Italian training centre. It dealt with the problem of early school leaving through a fun, creative approach that encouraged interaction between pupils, using educational games (including educational Escape Games). The new tools were particularly useful in the context of confinement.
In addition, the GDPR framework was studied and taken into account in the choice and use of the new applications.

Teachers' role

The conducted activities facilitated the development of participants' ICT skills equipping them with new digital tools for further utilization in the classroom to foster innovative and creative learning practices for the students. for one of the participants, mobility provided a unique opportunity for a reunion with a partner known only from an eTwinning project. This proved particularly satisfying and strengthened the collaboration between the schools involved.

Impact and output

The project had a valuable impact on the participating teachers, who have developed their skills, as well as on the pupils, who became more involved in class.
Also, the entire school changed its practices with a view, in particular, to tackling the early school leaving. The dissemination activities put in place have enabled the results to be shared and international openness to be promoted, while at the same time generating interest in mobility and the Erasmus+ programme.

European Commission

FRANCE

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Dreamers Beyond Borders

Project Coordinator: **Lycée professionnel Honoré Baradat**
Project reference: *2018-1-FR01-KA229-048344*

Project partners:

- **General Lyceum of Eleoussa, Ioanina (Greece)**
- **IPSSCTS "L. Milani", Meda (Italy)**
- **Istanbul Büyüksehir Sehit Serife Baci Çok Programli Anadolu Lisesi, Avcilar (Türkiye)**
- **Elektrenu Versmes gimnazija, Elektrenai (Lithuania)**
- **Lycée Saint-Exupéry, La Rochelle (France)**

Topic(s) addressed

The main subjects the project tackled were motivation, autonomy and cooperation. The efforts were also put into building self-esteem, inclusiveness and school values. The end goal was to prevent school dropouts.

Target group(s)

The project aimed to involve students, high school staff and parents. The students with immigrant origins were particularly welcomed. The stakeholders involved were the city hall officials and various relevant associations.

Methodologies

We focused our project on innovative practices that enhance students' motivation thanks to a playful and interactive approach using multimedia. Thus, two of our final productions took the shape of a multimedia game and a culinary book. Through theatre and photography, we captured images in order to produce a book that illustrates "the journey of an immigrant". Cooperation between different stakeholders, aided by the eTwinning platform and social networks was crucial to accomplish the tasks. We also used music as a pedagogical approach.

Innovation environment

This project was an opportunity to develop students' digital skills. They were encouraged and given freedom and autonomy in their learning and creative processes. Photographic and artistic exhibitions helped our students and their parents become familiar with school spaces. Our project helped promote humanistic values and school openness to the world.
We also engaged with academic training institutions.

Teachers' role

The presence of educational trainers and special education teachers allowed us to define a methodology for implementing our activities through practice analysis and research work. As a result, we have created our own teaching tools. Our project aimed at leading our students to understand migrants' motivations and hopes.
The diverse expertise (theatre, cooking, computer science and so on) fostered their cooperative spirit which they needed so as to facilitate exchanges and encounters.

Impact and output

We chose to focus on specific aspects of migration, which allowed some of our students to reveal more about themselves. The pride they take in their origins and personal journeys sometimes enables them to speak up, even if some of their stories are painful.
Our project had a lasting impact on the perspectives of many young people and adults, particularly regarding minors who are isolated and who have been deeply affected by their chaotic and often traumatic experiences.
More information is available at *https://twinspace.etwinning.net/75039*

European Commission

GERMANY

SECONDARY EDUCATION

Town Accessed with Games – TAG

Project Coordinator: **Comenius-Schule Mönchengladbach**
Project reference: *2019-1-DE03-KA229-060129*

Project partners:
- **OOsnovna Sola Puconci (Slovenia)**
- **9 Dimotiko Scholeio Irakleio Attikis (Greece)**
- **Yusuf Savas Ilkokulu (Türkiye)**
- **CEIP Pedro I (Spain)**
- **Faik Sahenk Ilkokulu (Türkiye)**

Topic(s) addressed

The project regarded, in broad strokes, cooperation for innovation and exchange of good practice. This involved an array of topics such as health and well-being, environment, key competencies, basic digital skills and foreign languages. Important were also democracy, ethics and awareness of the European cultural heritages.

Target group(s)

The participating group comprised stafffrom six schools and over 3,500 pupils including also those disadvantaged and SEN.

Methodologies

The project employed a wide array of methods, including traditional and technological games, teamwork activities, and nature-based games. Students actively participated in creating virtual towns, managing eTwinning pages, and engaging through the project's Instagram account. Amid the pandemic, these virtual towns and innovative gaming approaches helped students stay connected with their schools and communities, fostering both local and European connections.

Innovation environment

Pupils and teachers innovatively compiled an online e-book with project-generated activities, benefiting students globally. Virtual towns, shaped by students and teachers, inspired real-life activities and remain editable. We used diverse social media to share our innovations and created a recap video emphasizing the innovative aspects of TAG Erasmus+ projects. This video featured discussions by teachers and students about the project's innovative benefits and its alignment with European values.

Teachers' role

Teachers played a vital role, showing enthusiasm, sharing practices, and displaying multilingual and technological competence. They were committed to helping disadvantaged pupils and eager to acquire essential skills. In a collaborative environment where less experienced partners worked with seasoned team members, teachers exhibited resilience in addressing challenges, particularly those related to the pandemic. The coordinator's cross-cultural experience was instrumental in fostering group cohesion, intercultural understanding, and promoting the concept of a modern EU educator.

Impact and output

Students with diverse challenges, including economic, health, cultural, and disabilities, effectively applied project knowledge in virtual towns and on eTwinning platform. This hands-on experience enabled them to integrate learning into daily life and their communities, creating a substantial impact. Project results are freely accessible to all schools, ensuring widespread benefits. Some of the results are available: *Erasmus+ TAG - Mesto iger | (arnes.si), Imagen interactiva (genial.ly), Tag Town - Faik Şahenk Primary School (canva.com), https://comenius-schule.eu/unsere-schwerpunkte/erasmus/tag/virtuelle-stadt/*

European Commission

GERMANY

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Smart grid – intelligent power grids 4.0

Project Coordinator: **Heinrich-Emanuel-Merck-Schule**
Project reference: *2018-1-DE02-KA202-005075*

Project partners:

- **Berufsschule für Elektrotechnik und Mechatronik Wien (Austria)**
- **Darmstädter Kreis für Berufliche Bildung DKBB e.V. (Germany)**
- **Industrie- und Handelskammer Darmstadt Rhein Main Neckar (Germany)**
- **Landesberufsschule Bregenz 2 (Austria)**
- **Landesberufsschule für Handwerk und Industrie Bozen (Italy)**
- **Stredni skola elektrotechnicka a energeticka Sokolnice (Czechia)**

Topic(s) addressed

The project focused on creating and assessing *a smart grid teaching module* while expanding the VET network for international collaboration among learning venues. It also involved the exchange of competence-oriented teaching methods and web-based learning through various initiatives.

Target group(s)

A wide range of participants, including trainees, trainers, teachers, and representatives from sectors like business, politics, municipalities, universities, and chambers of commerce, worked together in a comprehensive and inclusive learning environment.

Methodologies

The smart grid, from a multidisciplinary perspective, promoted innovation and prepared learners for future European energy sector demands. It combined electrical engineering and IT skills, motivating self-organized, active learning with expanded curricula. The project encouraged design-oriented vocational training, enabling trainees to shape society responsibly. Digital tools facilitated location-independent learning with simulations, apps, and materials, engaging learners in a competence-oriented concept.

Innovation environment

Initiated by vocational schools, cross-sectoral cooperation in energy and IT fostered innovation. Collaboration with the energy industry and training companies, using education-business forums, integrated real-world company practices into education. It facilitated practical projects at universities and businesses while also establishing and expanding modern learning centres focused on “Renewable Energies – Smart Grids” within schools. The centres promoted innovation in an enriched learning environment with practical laboratories and diverse learning venues.

Teachers’ role

Company practices enriched education. Diverse learning modules, including simulations and hands-on tasks, fostered self-organized learning. Teachers promoted digital education. Materials bridged theory and practice, improving curricula and cooperation. Equal EU-level participation added value. Teachers from project partners enhanced smart grid competencies through collaborative training and cross-country comparisons.

Impact and output

The project had a significant impact, establishing “Renewable Energies – Smart Grid” learning centers and a vocational training network. It enhanced learners’ skills and promoted important values like democracy and tolerance while fostering cultural understanding. The creation of cross-border partnerships amplified its positive influence, ultimately enhancing professional prospects for all participants.

European Commission

GREECE

EARLY CHILDHOOD EDUCATION AND CARE

Prevention is better than Cure, as Hippocrates said

Project Coordinator: **23rd Kindergarten of Larissa**
Project reference: *2019-1-EL01-KA229-062931*

Project partners:

- **5th Kindergarten, Farsala (Greece)**
- **I.c.1 Imola (Italy)**
- **Ave María Esparraguera, Motril (Spain)**
- **Vilkaviskio vaiku lopselis-darzelis Buratinas (Lithuania)**
- **Preschool education organization "Saulite" (Latvia)**

Topic(s) addressed

This project promotes student well-being through health education, exercise, and social interaction while fostering environmental consciousness and European citizenship.

Target group(s)

Six schools from five different countries participated in this project, which involved students aged 4 to 9 years.
At the 23rd Kindergarten of Larissa, our focus was on a group of 44 children aged 4 to 6 years. This project stood out thanks to the active participation of parents and.

Methodologies

Activities focused on enhancing education and learning. Students acquired knowledge about Hippocrates' views, nutrition, and exercise, promoting healthy habits. We used the "Visible Thought" technique by D. Perkins, involving students in observation and analysis. Local and ICT-based methods engaged students, encouraging discussion, shared goals, and creativity. Parents played a role in fostering healthy family habits. Seamless collaboration occurred through platforms like eTwinning, email, messenger apps, WhatsApp, and video conferencing.

Innovation environment

The program innovatively introduced partner schools to Hippocrates, who emphasized disease prevention with "Prevention is better than cure." Exploring the idea of "Your food is your medicine and your medicine is your food," children learned about the positive impact of nature on health. Activities included creating botanical gardens, herbal salves, competitions, Olympic Games re-enactments, engaging with the Diachronic Museum on Ancient Greek nutrition. Digital storytelling, posters, and exhibitions extended the program's reach.

Teachers' role

Teachers played a crucial role in the project's success. They shared their expertise during meetings, guided newcomers in European programs, and provided valuable insights on the eTwinning platform, filmmaking, and digital storytelling. Teacher representatives attended transnational meetings, disseminated knowledge, and experiences, ensuring that the project's benefits reached students, parents, and local stakeholders.

Impact and output

Students gained knowledge in nutrition, physical activity, behaviour change, and individual competence. They also learned about Hippocrates, Greek eating habits, and sports. Collaborative experiences made students more participative, creative, and critical, benefiting their families. Teachers enriched their cultural experiences, improved teaching methods, communication, and ICT skills, and expanded their horizons. They gained insights into European education systems, enhanced critical thinking, and prepared to inspire students. .

European Commission

GREECE

PRIMARY EDUCATION

Our School, a Hug for All: Effective Strategies for our Multicultural Classrooms

Project Coordinator: **13th Primary School of Patra**
Project reference: *2019-1-EL01-KA101-061764*

Project partners:
- **Motivated Learning for Everyone (Sweden)**
- **Motivated Learning for Everyone (Spain)**
- **Eruditus Language School (Norway)**

Topic(s) addressed

The project focused on three key aspects: establishing a secure and inclusive environment through innovative inclusion strategies; addressing early school drop-out rates among vulnerable students; and implementing effective crisis management and conflict resolution within a multicultural educational context.

Target group(s)

The project catered to 140 pupils, with specific focus on target groups such as the Roma community, those with migrant backgrounds and refugees. Around 20 educators were dedicated to supporting those groups.

Methodologies

Educators acquired 21st-century skills, using interdisciplinary, game-based, and digital approaches, along with interactive and collaborative activities. This fostered an inclusive and supportive learning environment where students felt motivated and engaged. Activities like a digital English journal, multicultural presentations, and diversity-focused events promoted student initiative, creativity, critical thinking, and intercultural awareness.

Innovation environment

Educators, enriched with innovative knowledge from their mobility experiences, rejuvenated our school. They introduced open diffusion days for colleagues, fostering cooperation and enthusiasm for diversity and equal opportunities. This led to improved student relations, greater engagement, and better academic performance. Collaborations with the Parent Association, Municipality (Department of Social Solidarity), and local schools flourished, receiving positive feedback and future collaboration inquiries within our local educational community.

Teachers' role

Teachers played a vital role in acquiring innovative conflict resolution strategies for multicultural classrooms and enhancing the integration of migrant and refugee students into the Greek education system. They also gained practical teaching skills, fostering an inclusive learning environment. Additionally, teachers engaged with European peers, sharing knowledge and experiences, and passing them on to colleagues in our school and neighbouring institutions.

Impact and output

Increased educator interest in European projects was evident in our school. They gained confidence in addressing multicultural classroom challenges, acquiring practical skills and competencies that improved teaching quality and inclusivity. Students became more motivated and actively engaged in their education. Interaction among students from diverse backgrounds fostered greater acceptance and achievement. Early school drop-out rates decreased. Our school's public image improved, leading to collaborations with local schools on joint projects and knowledge-sharing with colleagues from neighbouring institutions.

European Commission

GREECE

SECONDARY EDUCATION

Cre@t1ve Conflict Resolution and Peer-to-Peer School Mediation

Project Coordinator: **4th General Lykeion of Alimos - Makrygianneio**
Project reference: *2019-1-EL01-KA229-062543*

Project partners:

- **Convitto Nazionale Domenico Cirilloscuole Annesse (Italy)**
- **I.I.S. "P. Sraffa" (Italy)**
- **Newark School (Malta)**
- **VI Liceum Ogolnoksztalcace im. Krola Zygmunta Augusta w Bialymstoku (Poland)**
- **Agrupamento de Escolas Dr. João Araújo Correia (Portugal)**

Topic(s) addressed

The project addressed a range of topics. These included conflict resolution, trust-building, mediation techniques, respect and responsibility, inclusion, active citizenship, and preparing for global challenges.

Target group(s)

57 teachers, 280 pupils, and a wide range of experts, stakeholders, authorities, and parents were engaged in the project over its three-year span.

Methodologies

The project employed methodologies like team-building and interactive, collaborative learning activities to enhance key life skills, including collaboration, interaction, involvement, equity, inclusion, well-being, ICT, and foreign language skills.

Innovation environment

The project's innovative outcomes encompassed enhanced mediation skills among students, enabling them to proficiently support peers in conflict resolution.

The project also instilled a sense of belonging to the broader EU community, emphasizing diversity and unity. Opening and closing events engaged a wide range of stakeholders, promoting awareness, while effective dissemination channels included websites, social media, European platforms, an e-newsletter, and a *comprehensive e-book* covering theory, case studies, and good practices.

Teachers' role

Teachers played a central role in the project, actively engaging in extensive training activities led by experts. These sessions, including seminars and workshops, commenced at the 1st Joint Staff Training Event and continued throughout the project. International activities encompassed physical and virtual mobilities, online engagements, team-building for communication and collaboration, job shadowing, mentoring, and article publications on the EU platform School Education Gateway. This teacher-led training extended into various domains beyond schools.

Impact and output

The project aimed for a lasting impact by promoting the widespread adoption of the School Mediation Method in schools to address contemporary social issues. It also sought to advocate for the recognition of mediation's importance by local and national authorities. The establishment of School Mediation Training Centers was designed to enable more teachers and students to benefit from conflict resolution education. Additionally, teachers were encouraged to adopt innovative teaching methods and actively address social challenges within the educational context, such as tension, conflict, bullying, racism, poverty, and war.

European Commission

GREECE

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Integrated services for Active Ageing – jobs and innovative entrepreneurship

Project Coordinator: **2nd EPAL of Evosmos**
Project reference: *2018-1-EL01-KA102-047553*

Project partners:

- **Training Vision Ltd., Portsmouth (United Kingdom)**
- **Almond Vocational Link, Plymouth (United Kingdom)**

Topic(s) addressed

Students in the technician sector were trained in integrated telemetry technologies for recording and monitoring biological signals and health parameters, while those in the health sector focused on quality care delivery methods and the utilization of telemetry systems.

Target group(s)

There were thirty students participating from Western Thessaloniki, an area with a high unemployment rate and families of lower economic status.

Methodologies

During the diffusion phase, a crucial element of our project's viability, we launched two significant initiatives. We collaborated with the Greek company VIDAVO to create a point-of-care telemetry system for monitoring health parameters, focusing on supporting the elderly. Additionally, we designed an innovative automated pill reminder box. Our students actively participated in implementing these initiatives, providing services to elderly residents in our municipality.

Innovation environment

The innovative deliverables emerged from our placement in England and creative learning spaces within our school. Students gained practical skills in construction and healthcare, thanks to the sustainable use of Erasmus+ programme resources. This cross-sectoral project between technicians and health students prepared them for entrepreneurship. Additionally, students honed their social skills by actively presenting the project at congresses, on TV, and on the radio.

Teachers' role

The teachers engaged in this project effectively applied theoretical knowledge to enhance their students' technical skills, aligning with the vocational school's mission. They actively promoted innovative knowledge fields, showcasing business opportunities in both technical and healthcare sectors. Furthermore, these teachers played a vital role in ensuring the project's sustainability, particularly in the realm of telemedicine.
Throughout the placement phase, these educators delivered theoretical subjects through seminars, provided hands-on training in vocational training centres, and offered guidance within laboratory and professional settings.

Impact and output

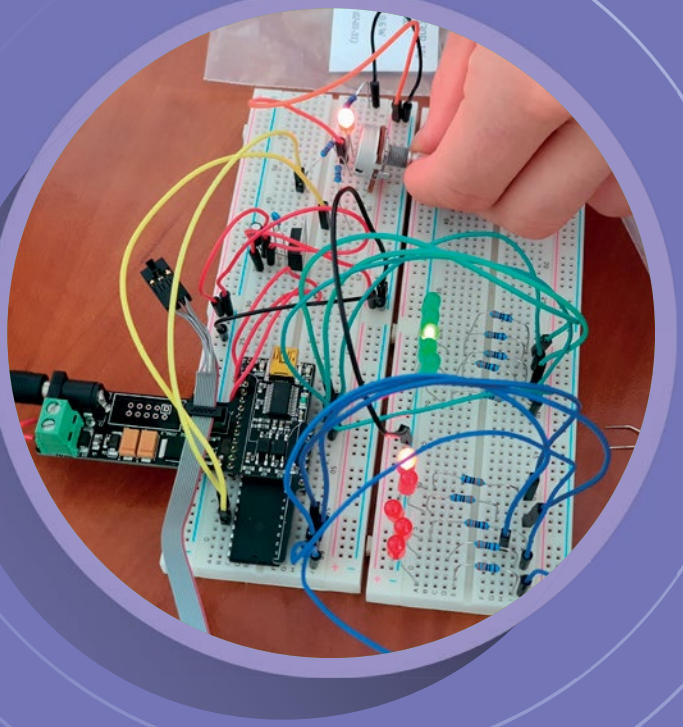
The project yielded significant impacts for its beneficiaries. It led to the enhancement of technical and professional skills, fostering greater proficiency. Beneficiaries also improved their use of English terminology, a valuable tool for professional development. Furthermore, the project cultivated adaptability and the ability to thrive in multicultural environments. In addition, it expanded the possibilities of working in both Greece and the European Union, opening up new opportunities for participants.

European Commission

HUNGARY

SECONDARY EDUCATION

Developing innovative e-learning materials for public education



Project Coordinator: **XTALIN Engineering Limited**
Project reference: ***2018-1-HU01-KA201-047718***

Project partners:

- **ELTE Bolyai János Gyakorló Általános Iskola és Gimnázium (Hungary)**
- **Liceul Teoretic Bolyai Farkas (Romania)**
- **Gymnázium Hansa Selyeho s vyučovacím jazykom maďarským, Komárno (Slovakia)**
- **Nadácia Pro Ratio (Slovakia)**

Topic(s) addressed

The project focused on topics of electronics, programming and technology.

Target group(s)

The initiative catered to the needs of general secondary school students between 15-18.

Methodologies

Our partnership's needs analysis drove the creation of a comprehensive secondary education curriculum. It methodically guides students from foundational math and physics through electronic device usage to mastering basic controls. High school students often explore electronics independently but face complexity and a lack of guidance. Our innovative approach embeds practical examples in every concept, enabling hands-on learning and enhancing comprehension.

Innovation environment

Our partnership's needs analysis inspired the creation of a dynamic secondary education curriculum. It guides students from math and physics fundamentals into the world of electronics and basic controls.
High school students, often exploring technical interests independently, face complexity and limited guidance.
Our innovative curriculum integrates practical examples, fostering an environment where students actively apply knowledge for deeper, hands-on learning.

Teachers' role

The authors of the curriculum, professionals in technical fields, shared their experiences and introduced the thought processes typical of a technical career.
This not only provided valuable knowledge but also highlighted the vital role of teachers. Teachers played a pivotal role in bridging the gap between classroom learning and real-world application, nurturing the next generation of engineers and technical professionals.

Impact and output

The Hungarian chapters of the curriculum received 3,000 to 5,000 downloads, and the English chapters several hundred. Beyond our partnership, several schools launched a *"Crystal Clear Electronics"* course in 2020, while technical schools incorporated our chapters into their IT training.
In Târgu Mureș, the local university's Department of Electrical Engineering praised the curriculum's quality and will integrate portions into first-year student teaching.
To boost quality further, we invite feedback on *our website*, underlining the curriculum's impactful reach.

European Commission

HUNGARY

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Chargers of Electric Vehicles in Learning

Project Coordinator: **CAM Consulting Szolgáltató Korlátolt Felelősségű Társaság**
Project reference: *2019-1-HU01-KA202-060906*

Project partners:
- **Ege Universitesi (Türkiye)**
- **Avaca TechnologiesCHNOLOGIES (Greece)**
- **Liceul Tehnologic "Stefan Odobleja" (Romania)**
- **Taliansko Slovenska Obchodna Komora (Slovakia)**
- **Kecskeméti SZC Kandó Kálmán Technikum (Hungary)**
- **Stichting LearningHub Friesland (The Netherlands)**
- **Servicios Extremeños Enseña S.L. (Spain)**

Topic(s) addressed

The project revolved around the topics of electronics, technology and innovation.

Target group(s)

The initiative focused on groups of actively working or unemployed electricians and future professionals and VET teachers.

Methodologies

Amidst the global expansion of e-mobility, educational institutions struggle to keep up. Access to training is limited, with most offerings being brand-specific.
This puts electricians at a disadvantage if they can't attend courses abroad. To bridge this gap, C-Evil employs a robust methodology, combining curated materials and an accessible online platform for comprehensive vocational education in EV charger technology.

Innovation environment

In our innovative online learning space, we aimed to enhance understanding of EV chargers. We collaborated with testers from our target groups, fostering an environment of innovation.
VET partners focused on classroom testing of learning materials, while other project partners rigorously assessed the online platform. VET partners engaged 100 students and 8 trainer/teacher colleagues, while 15 professionals and 6 internal colleagues from other partners also participated, enriching our innovation ecosystem.

Teachers' role

Our main goal was to ensure high-quality education in European classrooms, with a special focus on VET teachers. We provided them with tailored resources, including a curriculum with a unique teaching approach, a knowledge base for lesson planning, and supplementary materials like visuals and engaging activities.
Drawing from pandemic experiences, we also offered recommendations for utilizing online platforms and tools, recognizing the evolving role of teachers in adapting to new teaching methods and technologies.

Impact and output

Participating teachers gained valuable EV charging knowledge. A policy brief, a key project outcome, offers recommendations to European education policymakers. These suggestions advocate for the integration of innovative, practical, and up-to-date EV charger training materials into the standard curriculum. This initiative promises to significantly impact education, equipping future generations with essential EV charging skills.

European Commission

ICELAND

SECONDARY EDUCATION

Technology in Education and Every Day Life – the Path to Digital Citizenship

Project Coordinator: **Verzlunarskóli Íslands**
Project reference: ***2018-1-IS01-KA201-038797***

Project partners:

- **Tevfik İleri Anadolu Lisesi (Türkiye)**
- **Berufliche Schule Am Laemmermarkt (Germany)**
- **Escola Secundária de Almeida Garrett (Portugal)**
- **Srednja ekonomska sola in gimnazija Maribor (Slovenia)**
- **Lycee polyvalent privé Albert de Mun (France)**

Topic(s) addressed

The topics were mainly of a technologic nature, e.g. digital literacy and awareness, technology and programming, but there was also a social emphasis, such as responsibility and etiquette of on-line usage.

Target group(s)

The project involved pupils in upper secondary schools, aged 16-18.

Methodologies

All schools had relevant ICT knowledge and prior Erasmus+ experience. Pupils were chosen for their interest in both digital aspects and social engagement. The project included transnational meetings and workshops, with one activity conducted online. Various digital tools like Weebly and eTwinning were used. Pupils actively participated and regularly shared their findings, making the project highly dynamic and collaborative.

Innovation environment

The term "Digital Citizenship" stands as an innovative and highly pertinent concept in today's world. Throughout this project, diverse learning environments, encompassing both digital and physical spaces, were employed. Participating schools made diligent efforts to share their unique expertise with other collaborating organizations. Notably, this cooperation displayed a cross-sectoral nature, involving a blend of general education institutions and vocational education establishments among the participating schools.

Teachers' role

The teachers and schools engaged in the project possessed prior knowledge and experience in digital skills, all expressing a keen interest in the topic. The project was structured to leverage the diverse expertise of each participating school, facilitating the sharing of their knowledge with others. Additionally, the students from these schools actively participated in the process, as they were encouraged to exchange ideas, thus enabling them to share their innovative teaching methods.

Impact and output

The project had a notable impact, with highly engaged participants. While there's no mention of including those with fewer opportunities, teachers and students expressed great satisfaction. They shared their results within and beyond their schools. The project coordinator published an article in an Icelandic journal, and all information is accessible on a public website.

European Commission

IRELAND

PRIMARY EDUCATION

SOS – Save our Second Language

Project Coordinator: **Scoil Náisiúnta Ghort Sceiche**
Project reference: *2020-1-IE01-KA229-065988*

Project partners:
- **St Joan Antide School (Malta)**
- **Keskustan alakoulu (Finland)**
- **Bidaide Fundazioa - Amaurre Ikastetxea (Spain)**

Topic(s) addressed

The project emphasized linking minority languages to "place identity," fostering emotional bonds among all students, including immigrants/non-natives.

Target group(s)

The initiative was aiming to involve school-coordinators, principals, teachers, special needs assistants as well as pupils and their parents.

Methodologies

The schools were inspired by the European VIDEOforALL project, which employs innovative methodologies for language education using digital video.
Students created videos for different occasions and used tools like Actionbound, digital animations, and Google Virtual Tours to promote minority language use and place identity through a multidisciplinary approach.
Schools also developed language-learning computer games. Video tutorials were used for dissemination via various platforms.

Innovation environment

The group consisted of organizations with significant experience in eTwinning and Erasmus+. They were eager to guide less experienced partners in utilizing the eTwinning platform, especially those for whom this was their inaugural Erasmus+ project. From the outset, a whole-school approach was adopted within each organization.
This approach facilitated the sharing of innovation and knowledge, resulting in the resources we created being readily shareable and sustainable.

Teachers' role

The project brought together a blend of organizations with the requisite profile, experience, and expertise needed to effectively execute all project components.
Teachers' enthusiasm and skill sets in each school were successfully shared and leveraged to empower our students in creating their own digital content in the target/minority language. Additionally, mobilities allowed teaching staff to exchange skills and knowledge, which they subsequently applied within their own school settings.

Impact and output

The project expanded pupils' horizons through exposure to new cultures and experiences, leaving a lasting impact on their development.
It also enhanced linguistic, ICT, and interpersonal skills for both teachers and students, including those with fewer opportunities.
Knowledge and skills were shared among schools, and innovative teaching methods were introduced in language learning. Additionally, a European dimension was integrated into our school plans, fostering enthusiasm for future European opportunities.

European Commission

IRELAND

SECONDARY EDUCATION

Fostering a Positive Holistic approach to Focus on the challenges of social technology on the wellbeing of SEN students

Project Coordinator: **St. Ita's Special School**
Project reference: *2019-2-IE01-KA101-065690*

Topic(s) addressed

This project aimed to enhance the well-being of intellectually disabled students in the digital age by expanding their social media interactions to include teachers, parents, and the broader community.

Target group(s)

The initiative involved five teachers, 3 senior management and 8 paraprofessional Special Needs Assistant, as well as 156 students and their families.

Methodologies

Teachers underwent specialized training to support students' well-being in the digital age. This transformed the school's approach and promoted positive device use for learning. The project employed an effective methodology to address emotional and social consequences of online interactions, teaching new skills. Staff also received professional training in well-being and social technologies.

Innovation environment

The school employs innovative methods to enhance language and communication for safer online interactions. Ongoing teacher training reduces online vulnerability among intellectually disabled students.
Smartphones are now valuable tools for learning, no longer seen as sources of disruption or online bullying concerns. Students use them to support daily living skills, like shopping research and budget management.

Teachers' role

Teachers gained confidence and reduced anxieties about classroom technology, embracing handheld devices as learning tools. They played a pivotal role in this transformation.
Through personal device use and professional learning, teachers improved skills like teamwork, active participation, and active listening. These enhancements are evident in their teaching. Students also benefited, with peer-to-peer learning greatly improving, all driven by the enthusiasm for technology.

Impact and output

The impact is seen in the organization's shift toward embracing new perspectives on technology and well-being. The school has reduced vulnerabilities by promoting online safety and well-being, empowering learners and staff with technology knowledge.
Enhanced skills among staff have amplified the voices of intellectually disabled young people, challenging stigmas. Overall success is evident in improved online interactions, reduced referral rates for well-being services, and more effective engagement with pupils and parents.

European Commission

IRELAND

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Erasmus PRO for a Development, Digital Media and the Creative Industries

Project Coordinator: **Capacity Ireland**
Project reference: *2020-1-IE01-KA116-065822*

Topic(s) addressed

The project integrated innovative teaching and learning methodologies, emphasizing the fusion of work and learning.

Target group(s)

This initiative was designed for VET learners in the Community Development, Digital Media and the Creative Industries sectors, especially those disadvantaged within the labour market.

Methodologies

Our innovative methodology enabled learners to start their vocational course in Ireland before accessing ErasmusPro mobilities, all while continuing remote learning and completing 25-30 hours of weekly work experience. During their mobilities, learners applied and refined their skills, enhancing qualification attainment rates and employability. The European dimension also provided linguistic and cultural skills for EU employment.

Innovation environment

Our innovative environment blended VET provision with work experience placements, turning workplaces into dynamic learning spaces alongside traditional classrooms. ErasmusPro placements were specialized, featuring roles like ceramicists, photographers, and graphic designers. Learners gained hands-on experience working alongside professionals, greatly enhancing their sector-specific skills, employability, and workplace proficiency.

Teachers' role

Teachers played a key role as innovators through partnerships with diverse host employers for ErasmusPro mobilities. They collaborated directly with these employers to design workplace training plans, aligning with course objectives and maximizing learners' skill development. This engagement also kept teachers updated on professional practices and employer skill needs in the target sectors, allowing them to integrate the latest innovations and employer insights into their courses.

Impact and output

The project's most significant impact is evident in job outcomes, with over 75% of learners securing employment in their chosen field after ErasmusPro mobilities. This achievement stands out in highly competitive sectors, surpassing outcomes of equivalent VET courses without innovative ErasmusPro integration.
The project also promoted extensive collaboration between teachers and employers, fostering innovation and employer-led skills development within courses, which has since expanded across our VET provision.

European Commission

ITALY

EARLY CHILDHOOD EDUCATION AND CARE

Art Creativity Coding-Full Steam Ahead!

Project Coordinator: **2° Circolo Didattico S. Giovanni Bosco**
Project reference: *2018-1-IT02-KA229-048188*

Project partners:

- **Gymnasio Geniseas Xanthis (Greece)**
- **Liepupes Pamatkolas (Latvia)**
- **Szkola Podstawowa Nr 7 Z Oddzialami Integracyjnymi Im. Krolowej Jadwigi W Wolominie (Poland)**
- **Creche e Jardim de Infancia da Sismaria "O Pinoquio" (Portugal)**
- **Turgut Reis Ilkokulu, Istanbul (Türkiye)**

Topic(s) addressed

The project addressed unplugged coding that involved various activities such as creating a flow chart illustrating the steps of making a cake, growing plants, and inventing stories and transforming them into digital narratives. It also included the use of tools like Bee Bots for programming purposes.

Target group(s)

We involved pupils from age of 4 to 11 but the activities were also created for younger children.

Methodologies

We employed the IBSE methodology, emphasizing hands-on learning. Children conducted investigations, fostering knowledge through action, increasing interest and skill development. In our nursery classes (ages 3-6), older students acted as tutors, promoting peer-to-peer education and cooperation. This cascade effect benefited both children and teachers, ensuring a strong foundation of key skills for primary school. *E-twinning* facilitated experience sharing among the project's six countries.

Innovation environment

Our nursery schools had mobile tables, gardens, and spacious rooms with dedicated activity corners. Both primary and nursery schools were equipped with digital boards and mobile devices. Notably, the i-Theater allowed children aged 4-6 to transform their drawings into digital stories, fostering relationships and introducing them to new technology in a playful manner.

Teachers' role

Teachers served as coaches, guiding students to discover and interpret phenomena. The exchange of experiences among teachers from the six project countries fostered lasting friendships and allowed us to engage all school teachers. They introduced creative thinking and problem-solving through SCAMPER and Tinkering activities, connecting children's innate imagination with real-world items. Children learned through hands-on experimentation, presented in a playful, challenging format.

Impact and output

The project "Art Creativity Coding - Full Steam Ahead!" sparked curiosity and a drive to explore new methods. Nursery school teachers' dedication ensures our students enter primary school well-prepared, including those with special needs. We invest time in innovative teaching strategies, fostering a culture of creativity in the classroom, inspiring our students to embrace risk, iterate, and persevere. More resources can be found here: *Search | Erasmus+ (europa.eu)*

European Commission

ITALY

PRIMARY EDUCATION

E.S.S.E:N.C.E.- Entrepreneurial Skills in Schools Education: Nurturing Citizenship and Entrepreneurship

Project Coordinator: **Istituto Comprensivo Fontanile Anagnino**
Project reference: *2018-1-IT02-KA201-048137*

Project partners:

- **Lappeenrannan-Lahden Teknillinen Yliopisto Lut (Finland)**
- **Consorzio Ro.Ma. (Italy)**
- **Szkola Podstawowa Stowarzyszenia Edukacja Mlodziez (Poland)**
- **Agrupamento de Escolas N°1 de Beja (Portugal)**
- **Universidad de Murcia (Spain)**
- **Framtidsfrön Ideell Förening (Sweden)**
- **TEK Ortaokulu (Türkiye)**

Topic(s) addressed

The project revolved around entrepreneurial learning, recognition of non-formal and informal leaning based on credits as well as innovative curricula and teaching methods and developing training courses.

Target group(s)

The initiative targeted a group of about 800 participants comprising teachers, students, school leaders and others.

Methodologies

The cooperative methodology aimed to help students develop and self-assess their entrepreneurial competence, utilising transversal skills like critical thinking, creativity, and self-perception, crucial for active citizenship.
Rubrics based on three EntreComp (2016) competencies (Vision, Self-awareness, Self-efficacy) were created and used by teachers in the E-Portfolio to observe and evaluate student activities.

Innovation environment

The learning environments included outdoor education using our institute's green spaces, where cooperative activities aimed at achieving UN2030 Agenda Goal 2 took place. We employed various cooperative learning methods like circle time and round table discussions.
In the digital classroom, we observed and evaluated students' activities, including their creative final products such as videos, interviews, commercials, PowerPoint presentations, and slogan-themed t-shirts.

Teachers' role

The training of project teachers, conducted at the University of Murcia in Spain, facilitated the acquisition of technological and methodological skills related to the use of the E-Portfolio program. Subsequently, these trained teachers shared their experiences, especially with those involved in piloting. Finally, during the multiplier event, workshops were organized to promote the E-Portfolio methodology among teachers and students beyond the project.

Impact and output

The project's impact was primarily achieved through the innovative evaluation method using the E-Portfolio tool. It offers excellent accessibility as it is available online and in eight different languages (Italian, English, Spanish, Turkish, Portuguese, Swedish, Finnish), with a program that allows the uploading of various assessment rubrics for different key competencies.
Locally, the impact was felt in schools and institutions through multiplier events, newsletters, social media networks, posters, and brochures.
At the international level, the results were shared and disseminated through conferences and scientific articles.

European Commission

ITALY

SECONDARY EDUCATION

Coding the future

Project Coordinator: **Liceo Scientifico Statale "F. Masci**
"Project reference: *2018-1-IT02-KA101-047650*

Project partners:
- **Euneos (Finland)**
- **Universidade do Algarve (Portugal)**

Topic(s) addressed

The project focused on new innovative curricula and teaching methods as well as on developing training courses.

Target group(s)

The endeavour involved a total of 15 participants all of which were the secondary school teachers of STEM subjects.

Methodologies

The methodologies employed in the project were grounded in theoretical lessons and practical presentations showcasing examples of good teaching practices. These methodologies also encompassed discussions, the sharing and comparison (through benchmarking) of experiences among peers. The activities focused on the development of digital citizenship competences and the utilization of ICTs in the classroom within a diverse range of highly motivating European learning environments.

Innovation environment

The project harnessed engaging learning environments, amplified by the use of new technologies. These environments played a pivotal role in significantly enhancing students' attention and focus. They not only fostered meaningful and cross-cultural learning experiences but also spurred students to perform at higher levels. Moreover, they served as a driving force behind students' motivation to practice critical thinking, ensuring the safe and responsible use of ICTs and digital social media.

Teachers' role

To ensure students' digital competitiveness and enable them to become active agents of innovation in teaching and learning, both within the school community and beyond, it was crucial that teachers were adequately equipped and resourced. They possessed digital confidence and were supportive in teaching the digital and coding skills demanded by the modern job market.

Impact and output

The project left a significant impact on teachers, participating organizations, the school community, the school network, and local communities. It notably boosted teachers' motivation, engagement, and competencies in terms of Knowledge-Skills-Attitudes. This, in turn, positively affected students' outcomes and their digital citizenship. Moreover, it set off a chain reaction within the school community, promoting the exchange of 'good practices,' innovative tools, and methodologies related to ICT, Coding, and Computational Thinking. These valuable insights originated from an international-level environment and were derived from a well-tested European Project.

European Commission

ITALY

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Integrated Learning & DIGCOMP Evaluation

Project Coordinator: **I.I.S. Luigi di Savoia**
Project reference: *2020-1-IT01-KA202-008358*

Project partners:

- **USR Abruzzo (Italy)**
- **Dimitra Ekpaiditiki Simvilitiki Ae (Greece)**
- **Die Berater Unternehmensberatungs GmbH (Austria)**
- **Stiftelsen Kursverksamheten Vid U-Auniversitet (Sweden)**
- **Académie D'orléans-Tours (France)**

Topic(s) addressed

The project centred around an innovative multidisciplinary methodology and the use of digital tools. It also aimed to identify six key indicators associated with the EQAVET cycle stages that foster competence and entrepreneurial skills development. Finally, it conducted a comparison between digital and non-digital curricula.

Target group(s)

The initiative involved over 300 students and 20 piloting teachers. It also engaged class boards and partner institutions.

Methodologies

Our project designed interdisciplinary, competency-based curricula for L1 and L2 using innovative methodology. These curricula aimed to boost basic skills, language learning, and digital/entrepreneurial abilities, aligned with EQF levels and language standards. The approach fostered cooperation among students, making them active learners who improved their motivation, problem-solving skills, and peer review abilities.

Teacher collaboration also enhanced effectiveness, supported by a toolbox of categorized digital resources for seamless integration into teaching and learning.

Innovation environment

The project's learning environments promoted innovation through cross-disciplinary cooperation and digital literacy in curriculum topics. Units like "Looking for a Job" encouraged creativity and real-life planning, while "Discover my Territory" emphasized outdoor education and environmental awareness. This enhanced cross-disciplinary collaboration and knowledge transfer, fostering a culture of Quality Assurance within educational institutions.

Teachers' role

Teachers played a pivotal role in fostering innovation. They received training in competence-based curricula and digital competencies, integrating these into their teaching. They championed Quality Assurance (QA) aligned with EQAVET recommendations, serving as models for others. Using the EQAVET cycle and project toolkit's peer review tools, they measured teaching effectiveness, enabling further collaboration in innovative teaching methods.

Impact and output

The project significantly impacted teachers and students, fostering lifelong learning competencies, digital tool integration, and cooperative methodologies for improved teaching and learning. Students benefitted from tailored learning paths, especially those with learning difficulties. Stakeholders gained a deep EQAVET understanding, and the project's methodologies introduced quality assurance, innovation, and knowledge exchange, enhancing vocational education and training.

European Commission

LATVIA

EARLY CHILDHOOD EDUCATION AND CARE

From Lego to robots and digital skills

Project Coordinator: **Skrīveru pirmsskolas izglītības iestāde "Sprīdītis"**
Project reference: *2021-2-LV01-KA122-SCH-000041890*

Project partners:
- **Plus Project European Academy (Spain)**
- **EduKarjala (Finland)**
- **ITC International TEFL Certificate s.r.o. (Czechia)**
- **ITCS Information Technology Training & Consulting Services Ltd (Greece)**

Topic(s) addressed

The project addressed various topics including STEAM education, introducing robotics and coding, exploring web apps and digital storytelling, and implementing gamification through technology.

Target group(s)

The participants were eight preschool teachers with the objective to enhance their expertise in the realm of technology.

Methodologies

The project enabled teachers to gain knowledge and skills in robotics, digital storytelling, gamification, and virtual reality through formal courses and informal exchanges with colleagues from different countries. This inclusive initiative accommodated teachers with varying English proficiency levels and equipped them with the ability to use translator apps.

Innovation environment

Through this project, the preschool has embraced innovation to provide top-notch education for children. They've integrated robots, tablets, and interactive whiteboards, utilising these technologies both indoors and outdoors for enhanced learning experiences, including nature-related apps. Innovative communication and documentation methods have reduced paper usage. The project has fostered a culture of learning and knowledge sharing among teachers.

Teachers' role

Teachers took a lead role in exploring innovative instructional strategies and integrating technology to engage children. They enhanced their competencies in child development, interactive tools, digital storytelling, and safe tech use through professional development. This knowledge transfer extended to Aizkraukle parish preschools via Zoom meetings focused on Erasmus+ and early education technology. Teachers and children collaborated on tech experiments, with children actively assisting teachers in coding, robot-building, and tablet app usage.

Impact and output

Teachers learned to embrace technology for education rather than just entertainment, with a focus on guiding children's natural interest. The project's inclusivity involved teachers of varying English proficiency and ages, fostering active technology use in the school. Teachers shared their knowledge with parents and other preschools, leading to collaborative projects, like helping another preschool in Ķekava municipality write a proposal. This reflects their ongoing dedication to developing technology skills.

European Commission

LATVIA

PRIMARY EDUCATION

Founding the network of technology INTEGRAtionists in pupils' informal education

Project Coordinator: **Rēzeknes novada pašvaldība**
Project reference: *2020-1-LV01-KA201-077496*

Project partners:

- **Häädemeeste Keskkool (Estonia)**
- **Kupiskis Povilas Matulionis progymnasium (Lithuania)**
- **Vaikų ir jaunimo visapusiško lavinimo centras, Jonava (Lithuania)**
- **Academia družba za storitve d.o.o., Maribor (Slovenia)**
- **Parents' (who have children with special needs) NGO "Eņģeļi ar mums" (Latvia)**
- **Youth center Rezeknes pilsetas pasvaldibas iestade "Austrumlatvijas radoso pakalpojumu centrs" (Latvia)**

Topic(s) addressed

The project aimed to enhance the teaching profession's image and inspire more individuals in project countries to become teachers. Its main focus was "Education and Innovations," aligned with the European Innovative Teaching Award 2023 theme.

Target group(s)

Educators from various institutions participated, including four secondary and basic schools in Rezekne, one secondary school, one pro-gymnasium, two youth centres, one parents' NGO, and one Higher Vocational Education School.

Methodologies

Teachers and students collaboratively developed and used 35 online WebQuests (WQs) and digital tools, emphasizing multidisciplinary learning, including students with special needs. The project's innovative methods encompassed knowledge, skills, and values within STEAM education. These approaches were applied in various educational settings, promoting inclusion and cooperation, including schools, youth centers, municipalities, and a parents' NGO. Cooperation partners were identified through the eTwinning platform, fostering ongoing integration of WQs into subjects like Social Sciences and Art.

Innovation environment

The project transformed education institutions, promoting innovative STEAM practices that included cross-sectoral cooperation through student-led masterclasses, in-service trainings, and WebQuests. Dissemination activities, conducted with a whole-school approach across partner countries, reached a wide local audience.

Teachers' role

Educators now lead transformative workshops, challenging STEM and STEAM stereotypes and guiding activities like "Science through Technologies" and "English through Technologies." These teachers possess lifelong skills, nurturing creativity and 21st-century competencies such as problem-solving and collaboration. They also promote the development of 22nd-century skills, crucial in STEAM-based WebQuests and student-led masterclasses.

Impact and output

The project facilitated strategic cooperation in pedagogical innovation among informal education providers, municipalities, and NGOs. Educators gained diverse skills, including foreign languages, ICT, communication, robotics, and project promotion. Participants observed various teaching methods and are now prepared to assist fellow teachers and students across subjects, particularly those with special needs. The collaboration resulted in the formation of new networks and the submission of new Erasmus+ projects in 2023.

European Commission

LATVIA

SECONDARY EDUCATION

Effective e-Learning System Based on Digital Competences

Project Coordinator: **Zemgales vidusskola**
Project reference: *2018-1-LV01-KA229-046952*

Project partners:
- **Liceul Tehnologic Francisc Neuman (Romania)**
- **Industrijsko- obrtnicka skola (Croatia)**
- **Riksgymnasiet för Döva och Hörselskadade (Sweden)**
- **Agrupamento de Escolas Sá de Miranda (Portugal)**
- **2o Epaggelmatiko Lykeio Katerinis (Greece)**

Topic(s) addressed

The project dealt with ICT, new technologies and digital competences. Quality Improvement Institutions and methods were also on the topic list as well as international cooperation building.

Target group(s)

The initiative involved teachers and various groups of students including primary, secondary, special education needs and vocational education. The project aimed to include young people with fewer opportunities.

Methodologies

The project's primary focus was enhancing digital competences for both students and teachers. We achieved this by sharing experiences and utilizing various methodologies, including lectures, workshops, practical tool usage, classroom observations, and collaborative activities.

Innovation environment

The project participants recognized the significance of creating a sustainable e-learning environment in their schools, promoting quality learning through technology while enhancing the 4Cs: collaboration, communication, creativity, critical thinking.
All planned activities were designed to not only improve the ICT skills of students and teachers but also to promote their effective and meaningful utilization in the teaching and learning process and future careers.

Teachers' role

Teachers collaborated during Joint Staff Trainings, both physical and virtual, sharing digital tools and approaches, creating materials, lesson plans, and incorporating e-learning into their teaching. They accessed and utilised project materials and results, adopting new skills and methods in their classrooms.

Impact and output

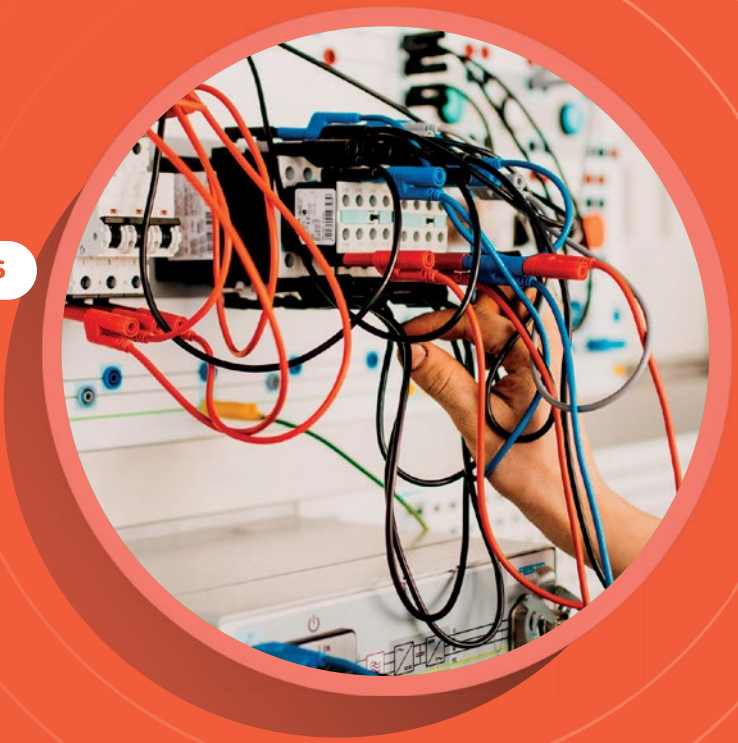
The initiative's impact can be measured by higher level of digital competences of teachers and students, improved e-learning system and gained knowledge and experience in the field of e-learning. All those outcomes are complemented by increased competence in foreign languages.

European Commission

LATVIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Work 4.0 – future job market



Project Coordinator: **Valmieras tehnikums**
Project reference: *2018-1-LV01-KA229-046989*

Project partners:
Berufskolleg Halle, Westfalen (Germany)

Topic(s) addressed

The topics included cooperation between educational institutions and business, enterprise, industry, SMEs and entrepreneurship. It also encompassed labour market issues like career guidance and youth unemployment.

Target group(s)

The project involved vocational education and training students in STEM subjects from the group age 16-19 years old. Starting with the modes 24 participants it grew to around 100.

Methodologies

The project employed a coaching methodology that motivated students to study independently. They gained practical insights by visiting companies, applying automation solutions to their projects. Digital tools like eTwinning platform, MS Teams, Messenger, WhatsApp, and Google Sheets facilitated international teamwork. For complex topics, a traditional teaching method ensured thorough understanding.

Innovation environment

The project innovatively utilised diverse environments, including innovative enterprises, organizations, and robot exhibitions, as valuable learning spaces. This approach extended learning beyond classroom walls, providing students with hands-on experiences and insights into real-world automation operations. Enterprises emerged as ideal learning spaces, offering excitement, engagement, and practical learning opportunities.

Teachers' role

Teachers' cooperation and peer learning were essential aspects of effective education. While teachers couldn't be experts in all fields, they needed strong cooperation skills to identify experts and incorporate them into the teaching process. This required a solid foundation of general knowledge about the topic at hand, as well as effective management skills. Peer learning played a crucial role in promoting interaction and the exchange offresh ideas, innovative methods, and teaching techniques among educators.

Impact and output

All students felt better prepared for the job market after the project's conclusion. All participating teachers continued their work on other projects. Valmieras Tehnikums invested in modern educational equipment like a 3D virtual cave and a welding simulator. In response to the project's insight that new professions require lifelong learning, Valmieras Tehnikums is expanding adult education and e-learning courses.

European Commission

LIECHTENSTEIN

SECONDARY EDUCATION

STEM experiments with explore-it for Primary pupils

Project Coordinator: **Realschule Vaduz**
Project reference: *2018-1-LI01-KA229-000099*

Project partners:
Campus Sint Ursula Lier (Belgium)

Topic(s) addressed

Embracing STE(A)M is not only fun but also essential for success. Tinkering fosters innovation and creativity. Peer-to-peer teaching is a valuable approach. Additionally, mastering the English language facilitates effective global communication.

Target group(s)

The project involved primary school students from both countries, Liechtenstein and Belgium.

Methodologies

Our method involves hands-on experience with tools like hot glue and soldering irons, promoting discovery and improvement. Competitions include long-distance flights and aerobatics. Peer learning and mutual respect are key. Research enhances knowledge and boosts confidence. Communication through MS Teams and WhatsApp keeps everyone connected.

Innovation environment

Realschule Vaduz is a leading secondary school in STEAM education, driven by innovation. Our well-equipped FabLab includes 3D printers, laser cutters, and soldering stations. We encourage innovation through school-wide technology days, fostering hands-on learning. The Erasmus project is a permanent part of our calendar, solidifying our position as innovators in Liechtenstein's educational landscape, often sought after by other schools for our expertise.

Teachers' role

We stay in constant communication with local businesses, keeping our teachers engaged in the project year-round. Sandro and Martin's year-round tinkering sparks curiosity among the teaching team, and they are readily available to answer any technical questions. This equipment also enhances other subjects profitably.

Impact and output

The project became an integral part of our school year, eagerly anticipated by students. Its popularity has grown to the extent that it now extends beyond our school, reaching elementary schools and generating high demand. We ensure inclusivity by allowing all students to participate, and we're ready to accommodate special needs with extra teachers if required. Our aim is to ensure that no student is excluded from this valuable experience.

European Commission

LITHUANIA

SECONDARY EDUCATION

Citizen in 31 Hours

Project Coordinator: **Lietuvos laisvosios rinkos institutas**
Project reference: *2019-1-LT01-KA201-060726*

Project partners:
- **Latvijas Universitate (Latvia)**
- **Laisvosios mokyklos institutas (Lithuania)**
- **E. mokykla (Lithuania)**
- **Fundacja Liberté! (Poland)**

Topic(s) addressed

The main topics included interdisciplinary phenomenon-based learning of social awareness and transversal social competences. The project also comprised methods and practices to create cutting-edge content and interactive ICT-based tools.

Target group(s)

The impressive number of 300,000+ upper secondary school students and 15,000+ educators across three countries, Lithuania, Latvia and Poland were involved in the project.

Methodologies

Our innovative method integrates economics, civics, and ethics, recognizing that social phenomena result from complex human interactions crossing disciplinary boundaries. It employs phenomenon-based learning enriched with personal, community, and global perspectives, using real-world issues like inequality, poverty, and artificial intelligence as starting points. Students take a central role, acquiring knowledge and skills naturally tied to real-life contexts. Interactive methods like inquiry learning, problem-based learning, and experiential learning are used, aided by ICT tools for an engaging educational experience.

Innovation environment

We created an interactive, student-centered learning environment for the course "Citizen in 31 Hours." It's highly digitalized, accessible through personal student accounts, and features various ICT-based tools like quizzes, tests, multimedia, and more. Personalised accounts empowered students to interact directly with content and tools while teachers could assign tasks and monitor progress.

Teachers' role

Teachers played a pivotal role in the evolving competence-based curriculum. We aimed to shift their role from primary instructors to facilitators, empowering students to become independent learners. This transformation included providing teachers with innovative tools, peer collaboration, and subject integration. It also involved creating student-cantered learning environments and utilizing interactivity and digitalization to boost motivation, engagement, and learning outcomes.

Impact and output

The "Citizen in 31 Hours" course revolutionized citizenship, ethics, and economics education in schools. It granted access to innovative content and tools, enhancing a student-cantered learning environment and improving motivation, participation, and performance.
According to teacher feedback, it proved to be a "beneficial tool in the classroom."
Our interdisciplinary approach expanded upper secondary school students' comprehension of real-world dynamics, offering deeper insights into contemporary social issues' complexity. Our platform provided a fresh and accessible approach to civics, ethics, and economics for today's youth.

European Commission

LITHUANIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

International practice in welding

Project Coordinator: **Klaipėdos Pauliaus Lindenau mokymo centras**
Project reference: *2020-1-LT01-KA102-077511*

Topic(s) addressed

The project focused on the quality assurance, international relations and cooperation and application of welding methods, new technological processes, ideas and tools in the school's engineering practical training centre.

Target group(s)

The participants comprised vocational education and training (VET) students in welding and VET teachers.

Methodologies

Through innovative methods, a group of 34 students successfully completed internships in foreign companies. The teachers' valuable experiences are documented in reports titled "Welding in Germany, Poland, and Malta" and "Modular Training of Welders in Germany."

Innovation environment

The project offered a platform for sharing innovations, delving into ISO welding standards, and exploring non-ferrous metal welding capabilities. It fostered collaborative problem-solving within the professional training system, paving the way for international, national, and local cooperation networks.

Teachers' role

Five VET teachers elevated their qualifications and enhanced international teamwork standards. They familiarized themselves with the training and certification structures for welders following EN ISO 9606 modular programs, which they aim to implement in our school. They conducted open lessons and generated welding-related recommendations. The ideas, knowledge, and competences gained are also being applied to the newly established specialty: renewable energy installer.

Impact and output

Both students and VET teachers enhanced their professional competencies in welding technologies, bolstering the school's reputation not only among students but also within the broader organizational landscape. The planned and executed vocational training activities have gained in quality, emphasizing the importance of international perspectives. The project also fostered collaborative problem-solving within the professional training system, leading to the formation of international, national, and local cooperation networks. Moreover, it positively influenced local businesses, who now have access to a pool of competent employees.

European Commission

LUXEMBOURG

SECONDARY EDUCATION

There's an App for That! Exploring the Best Apps for Teaching and Student Learning

Project Coordinator: **Lycée Technique d'Ettelbruck**
Project reference: ***2019-1-LU01-KA101-050058***

Project partners: **Europass SRL (Italy)**

Topic(s) addressed

The primary goal of the project was to actively apply and experiment with various learning tools and applications.

Target group(s)

The target groups included English teachers, as well as other language teachers and their students. However, the primary focus was on iPad-based classes.

Methodologies

In the summer of 2019, before the pandemic, innovative teaching and learning methods were emerging through the internet, featuring various apps and digital learning tools. These methods departed from the traditional use of iPads, which had primarily been for educational entertainment or digitizing old numerical methods. The transformative approach was cantered on discovering new methods to effectively enhance existing teaching materials, prioritizing the use of digital means as a means to an end – boosting learning and motivation.

Innovation environment

In our journey towards fully digitizing our school, this project stands out as one of the pioneering steps. It was designed to encompass teachers from non-technical subjects, including those who initially had reservations about embracing digital classroom tools. During the implementation on a whole-school basis, creating an innovative environment became a key focal point.

Teachers' role

The role of teachers in the language classroom evolved from being traditional knowledge transmitters to becoming multifaceted facilitators, encompassing roles as explorers, motivators, guides, and enablers. Students took centre stage, with a focus on their needs over course content. As teachers developed their digital skills, they also grew in self-confidence, fostering innovation and bolstering students' self-assurance, thereby nurturing creative potential and promoting teacher collaboration and peer learning.

Impact and output

The initial impact on the target groups was significant. Participating teachers were eager to apply their newly acquired knowledge and share it with their colleagues. However, the COVID-19 pandemic abruptly accelerated this process. Some teachers were better prepared due to the project, but the rapid pace of digitalization, starting from March 2020, made our project seem outdated and less relevant. Many apps have been updated, and AI-related concerns have become more prominent in our digital approaches.

European Commission

MALTA

EARLY CHILDHOOD EDUCATION AND CARE

Structured Course for Primary and PrePrimary Teachers

Project Coordinator: **Bee Smart Child Care & Kindergarten**
Project reference: *2020-1-MT01-KA101-074167*

Project partners: **Hello 4 Teachers (Czechia)**

Topic(s) addressed

The project aimed to promote a positive and professional teaching approach that maximizes knowledge and skills while fostering strong team relationships.

Target group(s)

The participants included students, their parents and educators.

Methodologies

The course offered a comprehensive view of the Czech Republic's education system, including visits to Ostrava schools. Educators learned about the Czech curriculum and diverse approaches for achieving educational goals, comparing them with Malta's system. They agreed that activities should consist of a series of interconnected games to enhance learning outcomes. Teachers are now more open to outdoor activities and implementing learned best practices.

Innovation environment

During their school visits, educators observed, inquired, and exchanged ideas, sparking motivation and fostering creativity. This led to productive discussions and plans. In turn, kindergarten students enjoyed hands-on activities promoting a positive attitude towards new experiences. They also learned to envision BeeSmart as an innovative school, involving all stakeholders and fostering an innovative environment. These efforts led to significant achievements for BeeSmart.

Teachers' role

Educators felt empowered after discussing the Czech and Maltese education systems during staff training at BeeSmart. This training also fostered better relationships among teachers, encouraging idea-sharing and support. As a result, educators are now more motivated and inspired in their daily routines, positively influencing the entire BeeSmart team.

Impact and output

This project was aimed at all teachers supporting children aged 3-5, fostering collaboration to enhance the teaching and learning experience. Positive feedback from the Parents Questionnaire underscores BeeSmart's commitment to delivering the highest standards in education. Emphasizing the impact, the Senior Manager conducted a one-hour session for over 70 members of the ECDAM team (Early Childhood Development Association Malta). This session not only raised Erasmus awareness but also facilitated impactful knowledge sharing.

European Commission

MALTA

PRIMARY EDUCATION

Stop Marine Litter

Project Coordinator: **Gozo College Rabat Primary**
Project reference: *2020-1-MT01-KA101-074146*

Project partners:

- **Gozo College Sannat Primary and Special Unit (Malta)**
- **St. Theresa School (Malta)**
- **St Francis School Gozo (Malta)**
- **Gozo College San Lawrenz Primary (Malta)**
- **Gozo College Qala Primary (Malta)**
- **Laura Vicuna School (Malta)**
- **Gozo College Boys' Secondary School (Malta)**
- **Gozo College Xewkija Primary (Malta)**
- **Mediterranean Information Office for Environment, Culture and Sustainable Development Association (Greece)**

Topic(s) addressed

The initiative addressed a wide array of topics including innovation in education, the outdoor classroom, entrepreneurship and collaboration as well as sustainable living. Time was also dedicated to public speaking and the whole school approach used.

Target group(s)

The project involved schools and broader communities including families, relatives and friends extending its reach to Gozo residents and visitors as well as eco-schools international network.

Methodologies

The methodologies involved collaboration, stepping out of one's comfort zone, sharing, empowerment, and adopting a whole-school approach. Learning opportunities included effective communication, discussion, presentation skills, and understanding human impact on wildlife.

In-class lessons covered planning, research, and exhibit construction. Outdoor activities involved promoting reusable bags, conducting clean-ups, analysing collected waste, studying microplastics using digital microscopes, and managing exhibits, all made possible through specialized teacher training.

Innovation environment

The project's main priorities were creating outdoor classrooms and incorporating technology, including digital microscopes and screens, in outdoor learning. Students and educators collaborated on 3D murals addressing litter and waste issues in their school. Efforts were made to reduce resource usage and promote sustainable practices across the school community, including involving older students in teaching younger classes and engaging family and friends in sustainability initiatives.

Teachers' role

19 educators from 9 schools attended MIO-ECSDE training and shared knowledge with colleagues. 2 schools even included another school in this exchange.
The program provided diverse teaching resources, fostering resource creation. Despite teaching different age groups, including a special school, all participants adapted content effectively, supporting each other and sharing resources.

Impact and output

Eco-Schools committee data showed a significant reduction in disposable water bottle use, including complete elimination in one school. Awareness also increased among families and friends. Students promoted sustainability by distributing reusable items. Two educators in the program focused on including students with disabilities in the learning process.

European Commission

MALTA

SECONDARY EDUCATION

CPD Through Foreign Experience - Finland 2

Project Coordinator: **St Joseph Mater Boni Consilii**
Project reference: ***2020-1-MT01-KA101-074112***

Topic(s) addressed

The project strived for quality, equitable, and free education. It emphasized excellent teaching, individualized student focus, and improved teaching skills through professional development. Inspired by Finland, it fostered synergies in education through the 'knowing-how-to-do' concept.

Target group(s)

The group of participants comprised 10 members of academic staff.

Methodologies

The trained staff of teachers improved their methods and competences by immersing themselves in the latest developments in education through job shadowing. They focused on cooperation, inclusion, non-formal and informal teaching, and adopted innovative apps for lesson preparation and gamification to engage learners effectively.

Innovation environment

The proposed project modernized the education system by exposing all teachers to European realities. St. Joseph Paola has become a reference point in Malta for incorporating new training approaches, inspiring other educational institutions to follow suit. A whole-school approach was adopted to integrate these initiatives into the existing educational system. Teachers at the school have incorporated innovative methodologies observed in their classrooms.

Teachers' role

The teachers have taken an active role in implementing Finnish teaching methods, putting a strong focus on incorporating movement breaks, gamified lessons, project-based learning, and technology integration. They have also explored and adopted the Lesson App for enhanced lesson preparation and gamification in the classroom.

Impact and output

The project had both micro and macro-level impacts. It positively influenced teachers at both the school and national levels through dissemination. In line with the Maltese national policy strategy, it broadened Maltese teachers' perspectives by exposing them to new Finnish approaches. This adoption of innovative methods ensured improved outcomes at the school level, indirectly benefiting students and promoting a culture of continuous professional development (CPD). The project's benefits extended beyond the participating school, serving as a reference point for others as the MBC aimed to share information with local institutions.

European Commission

MALTA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Up-skilling in Science Communication

Project Coordinator: **Esplora Interactive Science Centre**
Project reference: *2018-1-MT01-KA102-038406*

Project partners:

- **Glasgow Science Centre Charitable Trust, Scotland (United Kingdom)**
- **Heureka Science Centre (Finland)**

Topic(s) addressed

The project strategically addressed staff development needs through proper methods, ensuring accurate learning outcomes.

Target group(s)

The project targeted 16 Esplora employees, aged 19 to 42, as well as the local community.

Methodologies

Learning and teaching approaches in the three mobilities were enhanced through job shadowing. Both hosting Science Centres generously shared their operations, which greatly benefited our training. Observing science shows and workshops, including the setup process and discussions with counterparts, was highly motivating and enriched the participation and inclusion of Esplora members and other centre representatives. Job shadowing is an informal yet effective method, as learners observe and inquire, enhancing their understanding.

Innovation environment

Esplora's informal learning environment offers hands-on science engagement through workshops, shows, and debates. During three training sessions at Glasgow Science Centre and Heureka Science Centre, 16 Esplora members brought back valuable insights, enhancing their practices. The host centres share Esplora's format and public engagement strategies.

Teachers' role

As Malta's only Science Centre, Esplora kept up with non-formal education trends. Educators sought innovative ideas to engage the audience. Esplora served as a community scientific hub, promoting safety and the scientific process. Our science communicators used project knowledge to enhance visitor interactions.

Impact and output

The project introduced family mini workshops, involving about four families, each receiving instructions and resources for an experiment. This initiative aimed to promote science engagement among family members, enhancing the Science Centre experience.
A new organigram was generated, addressing the project's growing organisational needs. It served as a valuable resource for identifying team members and their roles within the corporate structure.
The project also improved communication techniques and introduced autism-friendly hours.

European Commission

THE NETHERLANDS

PRIMARY EDUCATION

iExpress myself II

Project Coordinator: **Koninklijke Visio**
Project reference: ***2018-1-NL01-KA201-038955***

Project partners:

- **Fundación ASPAYM Castilla y León (Spain)**
- **Bjonustu-og Bekkingarmiostoo Fyrirblinda Sjonskerta og Daugblinda Einstaklinga (Iceland)**
- **Vakok Ovodaja, Altalanos Iskolaja, Szakiskolaja, Keszegfejleszto Iskolaja, Egyseges Gyogypedagogiai Modszertani Intezmenye, Kollegiuma es Gyemekotthona (Hungary)**

Topic(s) addressed

The project's topics revolve around technology and innovation, encompassing both in its core focus.

Target group(s)

The target group comprises children who are both multiply disabled and visually impaired, with a developmental age ranging from 0 to 4 years old.

Methodologies

"iExpress Myself II" utilizes a versatile methodology that combines formal, non-formal, and informal learning, emphasizing learner responsibility. Inclusion is a core principle, promoting active participation and cooperation to create a collaborative learning environment that empowers learners and cultivates real-world collaborative skills.

Innovation environment

The project's true innovation lies in its inclusive approach to execution, where software is specially developed to cater to every child's needs, aiding them in their societal integration. This innovative aspect becomes evident in the positive impact observed on a particular group of vulnerable students, even though quantifying the project's daily impact on primary schools remains challenging.

Teachers' role

Led by a passionate team of specialized teachers for children with special needs, the 'iExpress Myself II' software initiative was a clear vision from the start. Teachers have been pivotal in driving the project's goals and outcomes, while a strong international collaboration with parents, students, and researchers has added depth and detail to this endeavour.

Impact and output

The project demonstrated a direct impact on the target group, particularly focusing on children with fewer opportunities within society. The software was freely available for use, making it accessible to every school. It was available in English, Dutch, Spanish, and Bulgarian.

THE NETHERLANDS

SECONDARY EDUCATION

The future is real

Project Coordinator: **SintLucas**
Project reference: ***2018-1-NL01-KA229-038987***

Project partners:
- **IES Maestro Juan de Avilla (Spain)**
- **Furness Academies Trust (United Kingdom)**
- **IIS "Stendhal" (Italy)**

Topic(s) addressed

The topics relevant to this year's European Innovative Teaching Award theme included technology, artificial intelligence, virtual reality and programming.

Target group(s)

The participating students aged 14-17 years old came from three schools in Spain, Italy and the Netherlands.

Methodologies

The multidisciplinary approaches used in this project were well-suited. Students developed competencies in modern technology, international social skills, and a passion for combining subjects. The project team prioritized inclusivity for students with fewer opportunities, using digital tools like the eTwinning platform to facilitate networking and learning.

Innovation environment

This project creatively utilized learning spaces, integrating artificial intelligence and virtual reality into the curriculum while emphasizing sustainability. The cross-sectoral approach required students to combine language, heritage, technology, social skills, and international teamwork, earning praise from the jury. The standout feature was the integration of virtual reality and artificial intelligence AI into the curriculum.

Teachers' role

A dedicated and experienced consortium collaborated to ensure the success of this project. The knowledge acquired during this project will be a valuable addition to future endeavours.

Impact and output

The impact on the group of participating students is clearly evident through their exchange experience. Additionally, the newly developed teaching packages have been integrated into the curriculum. Importantly, students with fewer opportunities were actively engaged in the project, making it a noteworthy example for future secondary school projects. The long-term impact will become apparent as 'The future is real' disseminates and becomes a regular part of the curriculum.

THE NETHERLANDS

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Craft your future

Project Coordinator: **Stichting voor algemeen voortgezet onderwijs, beroepsonderwijs en volwasseneducatiee**
Project reference: *2018-1-NL01-KA202-038952*

Project partners:
- **Learning Hub Friesland (The Netherlands)**
- **Stichting House of Design (The Netherlands)**
- **Universitat Politechnica de Valencia (Spain)**
- **The Fabric Association (Bulgaria)**

Topic(s) addressed

In line with the 2023European Innovative Teaching Award annual theme, the topics included technology, innovation and entrepreneurship.

Target group(s)

The primary target group comprises vocational education and training students from three collaborating countries: the Netherlands, Bulgaria, and Spain.

Methodologies

The project received praise from the jury for its effective use of multidisciplinary methodologies. Additionally, it successfully struck a well-balanced blend of online and physical activities.

Innovation environment

Schools led the project, involving stakeholders through the 'regional alliance toolkit.' The project was highly cross-sectoral, integrating education, historical crafts, and sustainability.

Teachers' role

The students involved in the project had a significant impact on its execution. This made the project an example of 'for students, by students,' highlighting one of its key positive aspects.

Impact and output

The innovative teaching and learning processes developed and implemented in the project have a significant impact. They provided students with new insights into career possibilities, encompassing sustainability, cultural heritage, and new technologies. Stakeholders and relevant companies have actively participated, and with the support of a broad network, the expected impact extends far beyond the project itself.

European Commission

NORTH MACEDONIA

SECONDARY EDUCATION

Let's play a game

Project Coordinator: **SUGS Gimnazija Orce Nikolov**
Project reference: *2018-1-MK01-KA101-046897*

Project partners:
International Training Centre ITC (Spain)

Topic(s) addressed

The topics included ICT new technologies, digital competences, new innovative curricula and educational methods, as well as development of training courses.

Target group(s)

The initiative directly targeted a group of 8 teachers in different subjects. In the broader picture, it involved all teachers and students in the school.

Methodologies

Multidisciplinary approaches were used in a training course to cultivate digital competences for 21st-century education, focusing on new ICT tools. Collaboratively, teachers and students developed an innovative online learning resource, which was employed during the COVID-19 pandemic and continues to be used thereafter.

Innovation environment

Involving all educational stakeholders in school development planning is crucial for a whole-school approach. Teachers and students played an active role in implementing and disseminating project activities involving new ICT tools in online classrooms. Their collaborative efforts led to the creation of an innovative online educational resource available to all teachers.

Teachers' role

Despite the COVID-19 crisis impacting our dissemination plan, we adapted to the new situation, giving teachers a pivotal role. Our project activities coincided well, enabling us to leverage the newly acquired ICT knowledge, which was shared not only among course participants but also with other teachers. Those who took part in the course, mainly teachers, promptly created presentations highlighting ICT's main possibilities. This was vital as most teachers had limited ICT knowledge before the pandemic.

Impact and output

Active involvement in the project had a profound impact on teachers. They acquired knowledge about 21st-century educational principles, critical and creative thinking skills, inquiry-based and task-based learning, gamification, and formative vs. summative assessment approaches.
The school successfully developed an online educational resource, fostering a culture of resource-sharing among teachers. This initiative garnered strong support from students and received significant attention in the local community and media, further amplifying its impact.

European Commission

POLAND

EARLY CHILDHOOD EDUCATION AND CARE

Difficult topics in good fan - education in the future

Project Coordinator: **Szkoła Podstawowa nr 2 im. Olimpijczyków Polskich w Pile**
Project reference: *2019-1-PL01-KA201-064947*

Project partners:
- **3rd Kindergarten Trilofou (Greece)**
- **Escola Pla de Girona (Spain)**

Topic(s) addressed

The project focused on modern technologies and digital tools for developing logical thinking in young children, a comprehensive approach to learning that includes foreign languages, and enhancing teachers' professional competences.

Target group(s)

The target groups for this project consisted of 22 kindergarten teachers and approximately 110 children aged 5-6 years who were in their one-year pre-school preparation program.

Methodologies

Introducing 5-6-year-olds to coding and programming through blocks and robots helped them explore exact sciences and use modern digital technologies safely. Teachers created an environment for developing key competencies through games and daily activities, preparing them for the future. They also facilitated online classes and games for international interactions in different languages.

Innovation environment

We introduced innovative approaches for 5-6-year-olds, including Education Through Movement, Montessori-inspired elements, math and educational games, Ozobots for programming, Lego Education for coding, and fundamental games like the Magic carpet. These innovations were integrated into the school's core curriculum, and our research was published in various platforms, sparking interest among teachers and students. Providing tools like blocks, robots, and a magic carpet inspired teachers to develop and implement the "Magic blocks - learning through play" innovation, fostering an innovative learning environment.

Teachers' role

The teachers shared their classroom experiences, publishing innovative teaching methods online. They developed skills in planning creative games, experiential learning, and using technology to enhance logical thinking. Their transnational network enabled collaboration, allowing children to engage with peers from English-speaking countries online, with teachers guiding these experiences.

Impact and output

A network of contacts has been established for transnational educational projects, such as the Job Shadowing training offer for organizations seeking partners Key Action 1 of Erasmus+. Our innovative solutions serve as an inspiration for young teachers and trainees, supporting the development of key competencies for all project participants. Equal access to modern technologies enables barrier-free development of logical thinking through teamwork. Teachers are equipped for self-assessment, including proficiency in a foreign language, fostering bilingualism in kindergarten, facilitating digital communication, information processing, and implementing innovative activities.

European Commission

POLAND

PRIMARY EDUCATION

LEGO® MINDSTORMS® EV3 in STEM school education

Project Coordinator: **Szkoła Podstawowa w Koźminie**
Project reference: *2019-1-PL01-KA229-065800*

Project partners:
- **Scoala Gimnaziala Elena Farago (Romania)**
- **IES Ausiàs March (Spain)**

Topic(s) addressed

The project addressed key competences in (Science, Technology, Reading, Engineering, Arts, and Mathematics) STREAM education and foreign languages, fostered open education and digital innovation, while also promoted creativity, cooperation skills, and the growth of knowledge in STREAM among teachers and students.

Target group(s)

The groups of participants comprised 20 students aged 12-15, 20 teachers in STREAM subjects and 80 other students.

Methodologies

The project focused on interdisciplinary integration and the development of hard and soft skills within STREAM education. Partner schools, including teachers and students, specialized in engineering, space, and nature, fostering expertise in these areas. Collaboration and innovative ICT tools enriched teaching. Students worked in groups, engaging in robotics classes emphasizing project-based learning. Authentic assessments like exhibitions replaced traditional grading. The eTwinning platform "Robotics through STEM (LEGO Mindstorms)" facilitated secure cooperation.

Innovation environment

Our small school, with just 100 students and 12 teachers, takes a holistic approach to education. We integrated project tasks into regular classes, offering a comprehensive learning experience. Teacher development programs focused on STREAM education, empowering educators to create engaging, innovative learning environments. Our supportive environment nurtures growth and lifelong learning for both teachers and students.

Teachers' role

Teachers in our network underwent training in STREAM and language competences, then shared knowledge with colleagues in their schools and beyond. They collaborated, supported each other, and organized innovative classes, incorporating STREAM and ICT tools to enhance the learning experience for their students.

Impact and output

Teachers significantly expanded their knowledge (100%) and integrated ICT tools (92%). As a result, students achieved an impressive 18% increase in national exam scores in 2022, along with recognition in various competitions. The project also produced valuable *educational materials* and reached participants facing challenges, ensuring inclusivity. Moreover, our school is now perceived as innovative by parents and local authorities, garnering their support.

POLAND

SECONDARY EDUCATION

New School - New Start

Project Coordinator: **IX Liceum Ogólnokształcące im. Wisławy Szymborskiej w Sosnowcu**
Project reference: *2020-1-PL01-KA101-080645*

Project partners:
- **Lycée Polyvalent Valentine Labbe (France)**
- **Liceo delle Scienze Umane e Linguistico "Danilo Dolci" (Italy)**

Topic(s) addressed

The topics of the project encompassed intercultural and intergenerational education and lifelong learning, teaching and learning techniques and finally, new approaches and methods of learning and teaching.

Target group(s)

The project involved general secondary school students aged 14-19 as well as teachers in all subjects and school management.

Methodologies

Students actively participated in their learning through innovative assessments and a methodology emphasizing autonomy and creativity. This approach encouraged open tasks, positive responses to mistakes, and self-correction. They developed key competencies and 21st-century skills through various teaching methods and creative use of digital tools, including international collaboration in the eTwinning platform and use of Google tools.

Innovation environment

We equipped classrooms with movable tables for flexible work arrangements and transformed spaces as needed. We utilized corridors and outdoor areas for varied learning experiences, including walking and talking, cooperative outdoor learning, and fresh air learning.
Additionally, we completed the "Building a School Digital Strategy with the SELFIE Tool" online course at eTwinning's Teacher Academy. We embraced a "Bring your device" approach and effectively utilized Google Classroom and educational apps.

Teachers' role

Teachers now apply gained knowledge in their classrooms to make learning easier and more enjoyable for students, all while eliminating the need for homework. Their primary aim is to cultivate a love for learning and school, achieved through meticulous lesson planning, offering constructive feedback instead of grades, and embracing mistakes as valuable learning opportunities. Building strong teacher-student relationships is crucial, as neuroscientists emphasize their pivotal role in the learning process. Additionally, a Professional Learning Community has been established to support teachers in their transition to becoming guides who learn alongside their students.

Impact and output

Between 2020 and 2022, our students' final exam results improved significantly. In addition to academic progress, students developed important life skills such as time management, creativity, effective learning strategies, goal setting, cooperation, and public speaking in foreign languages. Qualities like curiosity and honesty were also nurtured. Our teachers also made significant progress improving their professional skills.

European Commission

POLAND

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Foreign professional practice - the path to a career 2

Project Coordinator:
Zespół Szkół Techniczno – Informatycznych w Busku – Zdroju
Project reference: *2020-1-PL01-KA102-078676*

Project partners:
EuroMind (Spain)

Topic(s) addressed

The project covered three main topic groups comprising coding and programming, car mechanics and renewable energy.

Target group(s)

In accordance with the topics, three groups of participants were involved. Those included 48 IT technicians, 15 vehicle technicians and 15 renewable energy devices and systems specialists.

Methodologies

During the internship programs, we employed a multidisciplinary approach to all professions, enhancing both professional and digital/social skills. Participants utilized digital tools like Canva and video editors for communication and project dissemination. They also gained multicultural cooperation experience.

Innovation environment

Our school actively supports an innovative approach to education, fostering an environment that encourages both students and teachers to embrace innovation. For instance, two of our IT students, guided by a teacher, developed an application to automate computer game server administration, participating in a nationwide competition. We also promote cross-sectoral collaboration. This project exemplifies our commitment to interdisciplinary cooperation and creating an environment conducive to educational innovation.

Teachers' role

The teachers promote experiential learning and engage in collaborations with universities and industry partners. They embrace innovation, using project-based teaching and fostering collaboration. They introduce creative teaching tools, simulations, and practical tasks, inspiring student independence. Their vocational training approach is influenced by the Spanish education system.

Impact and output

The project positively impacted student motivation, leading to improved academic performance and success in exams. Many participants aim to pursue higher education, part-time jobs, or independent projects.
International internship opportunities continue to motivate students to excel academically. Moreover, the project enhanced education's effectiveness, better preparing students for the evolving job market, while also fostering teacher collaboration, peer learning, and an innovative approach to education.

European Commission

PORTUGAL

PRIMARY EDUCATION

We are European teachers

Project Coordinator: **Centro de Educação Integral**
Project reference: *2020-1-PT01-KA101-077869*

Project partners:
- **Teacher Academy Ireland Limited (Ireland)**
- **Europass SRL (Italy)**
- **European Academy of Creativity (Spain)**
- **Vice Versa CZ ZS (Czechia)**

Topic(s) addressed

The two main topics were education and innovation, encompassing various aspects, including student-cantered classrooms, creativity and innovation in teaching, game-based learning, and collaborative learning strategies.

Target group(s)

The primary target group was the teachers, but the students also benefited from the new methodologies introduced during the project.

Methodologies

Thirteen teachers attended six-day training courses in partnership with Europass Teachers AcademyCADEMY, focusing on various practical and collaborative methods. These courses were chosen individually to address specific teaching needs and promote active, inclusive education. Teachers shared their experiences via digital platforms, applied what they learned in two classes, and organised sharing sessions with colleagues.

Innovation environment

This project offered teachers ten pedagogical innovation courses, promoting an innovative environment where teachers shared and implemented student-centered methods. Students benefited, and families embraced these innovative teaching approaches.

Teachers' role

This project primarily focused on teachers as the target group, engaging them through course selection and participation in mobilities. Teachers opted for multidisciplinary courses to enhance their skills and create dynamic and inclusive classrooms, including topics like the student-centered classroom and bullying prevention. Throughout the courses, they learned and exchanged methodologies with educators from various countries. Upon their return, teachers promptly implemented these methodologies in at least two classes and organized sharing sessions with their peers, becoming innovation drivers for the entire school community.

Impact and output

The overall experience was highly positive, with participants meeting their objectives. An impressive 92% of teachers expressed satisfaction and a willingness to recommend and participate again. This project significantly improved students' academic success through dynamic classes and innovative teaching methods. It also enhanced the school community's European identity through various activities and collaborations.

European Commission

PORTUGAL

SECONDARY EDUCATION

Eco-Friendly robotics for a future green world

Project Coordinator: **Instituto N.ª Sra. da Encarnação - Cooperativa de Ensino**
Project reference: *2019-1-PT01-KA229-060800*

Project partners:

- **Zespol Szkolno-Przedszkolny Nr 6 w Rzeszowie (Poland)**
- **Kuressaare Gümnaasium (Estonia)**
- **Kabazli Sehit Ismail Yavuz Ortaokulu (Türkiye)**
- **Gymnasium Lefkimmis (Greece)**
- **Austrumlatvijas Tehnologiju Vidusskola (Latvia)**

Topic(s) addressed

Through project participation, students honed essential skills including entrepreneurship, coding and programming, and robotics. They also engaged with advanced technologies like 3D printing and virtual reality during various learning, teaching and training activities.

Target group(s)

The participants included students between the ages of 14 and 19 who attended the science and technology course.

Methodologies

We employed a project-based learning approach to address environmental issues, requiring students to apply knowledge from various fields, especially STEAM disciplines. They collaboratively developed projects in an informal setting, utilising technology for building and programming diverse robots. We ensured the inclusion of students facing learning challenges due to socio-economic disparities and upheld gender equality. This approach empowered students to become active, responsible learners, equipped with 21st-century skills.

Innovation environment

Partner-led activities occurred in the ecoclub and robolab spaces, which differ from traditional classrooms, offering resources for active learning. Students formed teams, enhancing creativity, critical thinking, and scientific knowledge, with a focus on recyclable materials when possible.

Teachers' role

The teachers played a crucial role as process leaders in shaping innovative teaching and learning approaches. They facilitated the activity spaces, designed challenges, and organized study visits to address ecological and energy issues. They also conducted workshops on robot construction and programming. Throughout the project, teachers closely supervised students, offering guidance, clarification, and improvement suggestions.
This initiative promotes further collaboration among teachers across various STEM disciplines.

Impact and output

This project has significantly impacted students and educators. Eco-clubs and Robolabs in partner schools empowered students in various STEM disciplines. Teachers adopted project-based learning, nurturing 21st-century skills in students. The project's impact goes beyond the classroom, motivating students to address environmental issues and apply their skills for positive change.

European Commission

PORTUGAL

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Schools 4.0 – Innovation in Vocational Training and Education

Project Coordinator: **Escola Profissional Amar Terra Verde**
Project reference: *2018-1-PT01-KA202-047463*

Project partners:

- **EP RAUL DORIA**
  Escola Profissional do Comércio, Escritórios e Serviços do Porto - Associação Raul Dória (Portugal)
- **INSIGNARE**
  Associação de Ensino e Formação (Portugal)
- **EPRM - Escola Profissional de Rio Maior, Lda (Portugal)**
- **KOGE Business College (Denmark)**
- **DIAVIMA - Kentro Dia Viou Mathisis (Greece)**
- **EFVET - European Forum of Technical and Vocational Education and Training (Belgium)**

Topic(s) addressed

This pedagogical reference underscores the significance of teaching and brings together stakeholders in education, utilizing digital tools for diverse learning and soft skills.

Target group(s)

The project involved selected teachers, technicians, staff, and students based on specific areas of expertise.

Methodologies

The methodologies used in participant selection aimed for holistic development and motivation among students, teachers, technicians, staff, and stakeholders. They introduced non-formal learning tools like digital apps, gamification, and real-life cases, challenging and motivating even the less engaged individuals.

Innovation environment

The focus was on the school's pivotal role in transforming students and the broader community. This entails creating innovative learning and assessment environments, ensuring quality, and fostering collaboration with municipalities, companies, associations, and health, social, and environmental entities to collectively shape a strategic vision for the future. The project also prioritized structured training and human resource development.

Teachers' role

This project thrived thanks to teachers and facilitators dedicated to reshaping vocational education and training. They prioritize adapting education to societal changes, using innovative methods and tools to ensure equal opportunities for all. Their aim is to prepare students for responsible citizenship. Educators from various subjects collaborate in creating an inclusive learning environment.

Impact and output

The introduction of innovative practices using digital technologies for green sustainability and alignment with the SDGs made this e-book a dynamic tool. It was showcased at various events, including the XV Congress of the Society of Education Sciences, SingularityU Greece 2021, and more. These achievements aligned with the European Innovative Teaching Award philosophy, demonstrating innovation, reusability, transferability, and expandability with a strong transdisciplinary dimension, making teachers and trainers proud.

European Commission

ROMANIA

EARLY CHILDHOOD EDUCATION AND CARE

Little STEMists

Project Coordinator: **Grădinița cu Program Prelungit „Floare de colț”**
Project reference: *2019-1-RO01-KA201-063444*

Project partners:

- **Egitim Kultur Sanat Spor Ve Turizm Dernegi, Aydin - Kusadasi (Türkiye)**
- **Yunus Emre Anaokulu, Cekmeköy(Türkiye)**
- **Icloditerzo, Lodi (Italy)**
- **Tallinna Rõõmupesa Lastead, Tallinn (Estonia)**
- **Kindergarten Zora, Cherven Bryag (Bulgaria)**
- **Diadrastiko Europaiko Sxoleio, Varkiza (Greece)**

Topic(s) addressed

The project centred around ICT, new technologies and digital competences, cooperation between educational institutions and business, and research and innovation.

Target group(s)

About thousand children aged 3-7 were involved in the activities, that included also pupils with special needs and fewer opportunities. Also, 80 teachers took part in the project.

Methodologies

The project adapted science and engineering stories for children, focusing on developing capacities like originality, flexibility, connectivity, and imagination. It designed lesson scenarios, integrating all STEM domains, with mathematics being the most efficient choice. Teachers used interactive games, apps, educational robots, and various methods like mind mapping and Socratic questioning to foster creativity, critical thinking, and collaboration in children.

Innovation environment

The project primarily aimed to enhance literacy skills, aligning with national initiatives across partner countries. STEM labs were established in each partner institution, equipped with STEM kits, solar robots, educational robots, coding tools, and more. This provided a unique learning space for children to experiment, predict, analyse, and draw conclusions from their work, proving to be an innovative and inspiring experience for both teachers and students.

Teachers' role

The integration of modern technology, mathematics, and science, including engineering kits, educational robots, and online programming platforms, along with innovative teaching methods, sparked intellectual curiosity and a thirst for knowledge among students. This approach laid the foundation for developing 21st-century competencies, including adaptability, digital literacy, creativity, critical thinking, information synthesis, effective communication, collaborative teamwork, task-oriented effort, problem-solving skills, and the ability to conduct tests and draw meaningful conclusions.

Impact and output

The project significantly improved teachers' STEM-related competencies, including planning and organizing integrated STEM activities. For students, it enhanced skills like fine motor abilities, digital literacy, and communication, fostering curiosity, resilience in the face of mistakes, and effective information interpretation. Local authorities welcomed the initiative and embraced educational innovations.

European Commission

ROMANIA

SECONDARY EDUCATION

Integrate IT

Project Coordinator: **Centrul Scolar pentru Educatie Incluziva "Alexandru Rosca" Lugoj**
Project reference: *2018-1-RO01-KA229-049631*

Project partners:

- **Selworthy School, Taunton (United Kingdom)**
- **Ozdebir Ozel Egitim Uygulama Merkezi 1. Kademe, Golcuk (Türkiye)**
- **Istituto Comprensivo E. Pertini, Trapani (Italy)**

Topic(s) addressed

The project focused on new innovative curricula, educational methods and development of training courses. It revolved around ICT new technologies and digital competences with consideration for disabilities and special needs.

Target group(s)

The initiative involved students aged 10-16 years old facing educational difficulties as well as 200 teachers, therapists and educators.

Methodologies

All partners organized inclusive school activities using various methods and tools, including digital open educational resources, social stories, and more. These activities involved special educational needs students from both special and mainstream schools, promoting inclusivity and collaboration.

Innovation environment

The schools have undergone lasting digital transformation, integrating innovative teaching strategies and tools even after the project concluded. This shift has significantly enhanced students' digital skills and improved teachers' engagement in various school activities, including multidisciplinary teamwork and organizing inclusive events and campaigns.

Teachers' role

The project's experiences have been shared widely with colleagues and educators in various professional pedagogical forums, including workshops and webinars. These sessions covered methods, digital tools, case studies, and student demonstration activities. Partners also exchanged practices related to using digital technologies for students with special educational needs, benefiting teachers by enhancing their digital skills. This sharing facilitated the creation of personalized digital educational tools for special educational needs students.

Impact and output

Teachers have improved their digital skills and collaborated with students using various digital tools. They've also created teaching materials, expanding the range of methods and tools available to educators in partner schools. This has improved teaching quality and motivated students to engage actively in school activities. In total, about 600 students, 200 teachers, therapists, and educators from partner schools, along with 300 professionals from other institutions and local community members, participated in these impactful local activities.

European Commission

ROMANIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Educate to Innovate (EDINN)

Project Coordinator: **Colegiul Economic Ion Ghica**
Project reference: *2018-1-RO01-KA229-049245*

Project partners:
- **Koulutuskuntayhtymä Tavastia (Finland)**
- **Agrupamento de Escolas de Castro Verde (Portugal)**
- **Gymnazium Ladislava Jarose Holesov (Czechia)**
- **T.S. Franchetti Salviani (Italy)**

Topic(s) addressed

The project addressed new innovative curricula, educational methods and development of training courses. It also focussed on key competences and basic skills as well as international cooperation, international relations, development and cooperation.

Target group(s)

The initiative involved students aged 15-20 years old, about 300, teachers, local media, companies and NGOs.

Methodologies

The project employed project-based learning to engage students in real-world problem-solving scenarios. Schools established entrepreneurial clubs where students immersed themselves in authentic contexts, fostering intrinsic motivation and deep engagement. They conducted field research, connected with local entrepreneurs, and identified solutions to local problems using available resources. This approach highlighted the close connection between art, math, science, and technology, promoting a STEAM framework for problem-solving.

Innovation environment

Our school has a history offostering innovation. We've undertaken projects to enhance various curricula, collaborated with international partners to create educational tools, and embraced methodological innovations in education. Our holistic approach values the school, community, and, most importantly, the students, who go on to make significant contributions to various aspects of society.

Teachers' role

Teachers underwent training to change students' perceptions of Science, Math, and Technology and demonstrate the benefits of these disciplines. We recognized the importance of integrating art and design into the innovation equation, which our EDINN project partners also embraced. This training transformed our teachers into change agents, not only within our schools but also regionally, as they enthusiastically shared their experiences with other educators to create an entrepreneurial ecosystem in the educational community.

Impact and output

The project's impact extends beyond beneficiary institutions by promoting an entrepreneurial mindset and enhancing students' ability to turn ideas into actions. It also contributes to the development of an entrepreneurial ecosystem in partner countries. Participants in the project continue to collaborate with other teachers, sharing tools, methods, and information on innovative teaching practices. This transfer of best practices empowers teachers as change agents, providing them with lesson plans that promote entrepreneurial learning and facilitate the path to change.

European Commission

SERBIA

PRIMARY EDUCATION

SOS – Soul of Science

Project Coordinator: **Primary school Miloje Čiplić**
Project reference: *2019-1-RS01-KA229-000909*

Project partners:
- **Istituto Comprensivo Statale G.B. Nicolosi (Italy)**
- **IES Castillo de Luna (Spain)**
- **Kenan Cetinel Ortaokulu (Türkiye)**

Topic(s) addressed

Project activities embraced innovative topics such as robotics and engineering but also English and native languages.

Target group(s)

The participants comprised a group of pupils aged 11-15.

Methodologies

Teachers organized multidisciplinary activities that promoted English language use, collaboration, experiential learning, and play to develop students' key competences. Students facing socioeconomic obstacles or learning disabilities were actively included in activities aligned with their interests. Due to pandemic-related uncertainties, many activities adopted a blended format, heavily relying on the eTwinning platform. Students were encouraged to engage in activities of their choice, fostering creative thinking, teamwork, and self-expression.

Innovation environment

Partner schools created an innovative environment to fuel students' STEM interest and boost key competences. They integrated multidisciplinary tasks across subjects, went beyond classrooms with science center visits and vocational school robotics workshops, reshaping education across all partner schools.

Teachers' role

Teachers led innovative activities, reshaping how they taught English and native languages, linking them with STEAM subjects. This approach enhanced both teachers' and students' skills in multidisciplinary teaching, diverse learning environments, and inclusive education while fostering cooperation and mutual learning.

Impact and output

The project had a significant impact on students, teachers, and partner institutions, fostering lasting bonds through eTwinning and project collaboration. It ignited students' interest in STEAM and innovation, aligning with the project's goal to reduce early school dropout rates and support vulnerable pupils. Additionally, partners created a concise brochure outlining their inclusive practices in and beyond the classroom.
More information is available at:
https://www.thinglink.com/scene/1465635805136420866

European Commission

SERBIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Caterers on the run

Project Coordinator: **Secondary vocational school for economy Sombor**
Project reference: *2019-1-RS01-KA202-000847*

Project partners:
- **Agrupamento de Escolas de Barcelos (Portugal)**
- **Stredna odborna skola (Slovakia)**

Topic(s) addressed

This project emphasized entrepreneurship as a vital skill for future generations, encouraging students to cultivate this competency to prepare them for success beyond their school years.

Target group(s)

The initiative involved students aged 15-19 and teachers of vocational subjects in participating schools.

Methodologies

The project focused on catering-related skills, with teachers and students actively participating. A training program and handbook were developed. Special attention was given to students facing challenges, helping them build teamwork, adaptability, and business awareness. A parallel project on the eTwinning platform served as a dissemination channel.

Innovation environment

Partners collaborated to enhance their teaching methods, incorporating entrepreneurship to align with future labour market demands. Pupils engaged in international teamwork, developing business plans for catering projects. The partner schools integrated these outcomes into their practices and shared them with interested parties.

Teachers' role

Teachers played a crucial role as innovators in this project. They identified shortcomings in their schools' approach and collaborated to address them, incorporating entrepreneurship into their curricula. Through cooperation and peer learning, they enhanced their own knowledge and skills, creating a tool for future use in their teaching practices.

Impact and output

The project enhanced the quality of VET teaching and content, making these courses more appealing to partner schools and boosting their students' competencies, better preparing them for the job market upon graduation. The most significant impact was on the project's direct participants, particularly those with fewer opportunities, who were encouraged to actively engage in their learning and future development.

European Commission

SLOVAKIA

PRIMARY EDUCATION

ICT in a modern European school

Project Coordinator: **Základná škola s materskou školou Hôrky**
Project reference: *2020-1-SK01-KA101-078104*

Project partners: **Edutime s.r.o. (Czechia)**

Topic(s) addressed

The project's goal was to boost digital skills for students and teachers, promoting innovative teaching methodologies and secure ICT use.

Target group(s)

The participants consisted of 350 pupils and their parents as well as 24 teachers. There we also partakers from other schools and international projects.

Methodologies

Our school expanded its curriculum to include algorithmization and new programming, enhancing critical thinking, spatial skills, math, ICT abilities, fine motor skills, and concentration. We emphasized experiential learning and cross-curricular connections, promoting ICT skill development in both regular and extracurricular activities. Our innovative approach extended to internal and international eTwinning projects, addressing themes like cyberbullying and internet safety, while fostering mutual education between teachers and students, making pupils active contributors to the learning process.

Innovation environment

We used innovative education methods that enhance critical thinking, language proficiency, and ICT skills. We prioritized individualized learning, inclusivity, and experiential learning with the support of modern technology and non-traditional classrooms. Our aim was to create a trusting, family-like environment, promoting international partnerships through platforms like eTwinning and the Erasmus+ programme.

Teachers' role

By integrating knowledge from EU-supported projects, our teachers created an innovative educational environment. They introduced fresh topics into the curriculum, making learning engaging. Investment in ICT has enhanced education. These innovations shaped graduates' skills. Our project-involved teachers mentor colleagues, empowering them. These skills enabled participation in international projects, enriching education.

Impact and output

EU-supported projects have revolutionized our school. Teachers now employ innovative methods, making learning more engaging. Students gain ICT skills, social network awareness, and actively participate in projects. Teachers have grown professionally, mentoring colleagues, and our organization benefits from enhanced expertise and modernized processes, boosting competitiveness and achieving European school status.

European Commission

SLOVAKIA

SECONDARY EDUCATION

Learning and teaching without limits

Project Coordinator: **Gymnázium Poprad**
Project reference: *2018-1-SK01-KA229-046401*

Project partners:
- **Gladsaxe Gymnasium, Copenhagen (Denmark)**
- **Kaunas A.Pushkin gimnazium, Kaunas (Lithuania)**
- **Gymnázium u Libenského zámku 1, Praha 8 (Czechia)**

Topic(s) addressed

The project effectively tackled essential topics, including digital competences, international cooperation, and quality improvement measures, all contributing to our ongoing progress.

Target group(s)

The groups of students 15-16 years old and the teachers were directly involved in the project.

Methodologies

The project aimed to create multidisciplinary learning experiences involving teachers and students across at least four subjects. Each partner school selected traditional and innovative teaching methods to enhance key competencies, combining classroom instruction with outdoor activities and site visits related to their lessons. The eTwinning platform facilitated communication and resource sharing.

Innovation environment

Throughout the project, teachers and students exchanged experiences and utilized various Google apps, including Disk, Google Earth, Google Classroom, Google Docs, Videoeditor, Clarisketch, Quizlet, App Inventor, and GYMP 2. This project focused on open-source software and resulted in a methodology brochure and the LTL Slovakia app, offering diverse lesson formats, assessing traditional teaching methods, and introducing innovative approaches.

Teachers' role

Teachers actively exchanged diverse educational experiences, including traditional and innovative methods like teamwork, outdoor learning, storytelling, gamification, project-based learning, and more. They also collaborated on open educational materials, enhancing digital competencies for teachers and students, increasing motivation and self-confidence.

Impact and output

The students explored diverse cultures, school systems, and nature, nurturing new friendships throughout their journey. IT students garnered valuable experience by utilizing computers and mobile phones for educational purposes, enhancing their versatility and key competencies. This experience may serve as inspiration for some to pursue a teaching career in the future.

European Commission

SLOVAKIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Modernization in the field of IT – teachers

Project Coordinator: **Stredná priemyselná škola Jozefa Murgaša**
Project reference: *2020-1-SK01-KA101-078092*

Project partners:
Smíchovská middle industrial school and gymnasium (Czechia)

Topic(s) addressed

The project addressed cyber security, i.e. reducing risks and safeguarding systems, data, and networks. It also promoted microcontroller education to enhance teachers' programming skills and understanding of hardware and control technology.

Target group(s)

The activities involved five teachers in subjects of network technology cyber security, programming, electrical engineering and microprocessor technology.

Methodologies

The project implemented innovative teaching and learning approaches, promoting teacher development and integrating formal and informal education, fostering inclusive participation, and enhancing teacher skills.

Innovation environment

The project leveraged cutting-edge technology to create immersive learning environments. Emphasizing project-based learning, critical thinking, and practical skills, teachers collaborated with industry experts and facilitated international experiences. These efforts boost education quality and prepare students for future careers.

Teachers' role

The teachers drove innovation in teaching and learning, introducing active learning, group work, and project-based methods in subjects like cyber security and microcontrollers. They personalized education, utilized technology for interactive learning, and promoted collaboration among students. This initiative enhanced interaction, personalization, and technology integration in the European Union's educational landscape.

Impact and output

The project's innovative teaching and learning processes had a significant impact. Teachers directly influenced students' knowledge, skills, and attitudes through up-to-date information and innovative approaches. Moreover, the project's effects multiplied, spilling over to other students, teachers, schools, and local communities. Best practices disseminated, expanding the impact and improving the quality of professional education.

European Commission

SLOVENIA

PRIMARY EDUCATION

proSTEMgirls

Project Coordinator: **Osnovna šola Radlje ob Dravi**
Project reference: *2019-1-SI01-KA229-060562*

Project partners:
Elementary school Branko Radičević (Serbia)

Topic(s) addressed

The project effectively dealt with STEM subjects, programming and technology. It also addressed innovation and entrepreneurship.

Target group(s)

The focus of the initiative was on the involvement offemale students aged 10-14 as well as female teachers.

Methodologies

The project successfully improved the programming and computer modelling skills offemale teachers and students. It utilized a school club format, focusing on programming with Micro:bit using Python, and the use of software like Inkscape and RD Works for laser applications. Students actively engaged in the entire process, from idea generation to creating final products. This approach emphasized hands-on learning and innovative methods for education.

Innovation environment

The project initiated an innovative environment where schools led the way in inspiring students to engage in creative product design. The introduction of laser engraving machines and Micro:bit programming brought new perspectives to both educators and students. Even students aged 6-15, not directly involved in the project, served as “testers” for educational materials. This showcased the school’s commitment to fostering innovation and digitalization, with teachers readily embracing new activities and approaches.

Teachers’ role

Teachers guided students and selected appropriate software for the project, empowering female educators to lead in the learning process. This increased the number offemale mentors for ongoing impact. Actively involved teachers developed teaching units to benefit peers, sharing successful practices and expanding tech integration in schools.

Impact and output

Teachers gained valuable teaching methods to inspire and guide students in STEM activities. The project substantially improved digital competencies for both students and teachers, including programming, software use, and operating the laser machine. It promoted inclusivity by involving a student with special needs and encouraged the use of guided teaching units by other educators.

European Commission

SLOVENIA

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Go – Car – Go Plus

Project Coordinator: **Šolski center Ptuj**
Project reference: *2021-1-SI01-KA210-VET-000029875*

Project partners:
- **Osnovna škola "Matija Gubec" (Serbia)**
- **Osnovna šola Dr. Ljudevita Pivka (Slovenia)**
- **Osnovna šola Sveti Tomaž (Slovenia)**
- **JVIZ OŠ Destrnik-Trnovska vas (Slovenia)**
- **Osnovna škola Hodosan (Croatia)**
- **Osnovna šola Olge Meglic (Slovenia)**
- **Osnovna šola Hajdina (Slovenia)**
- **Berufsförderungsinstitut Burgenland (Austria)**

Topic(s) addressed

The key topics tackled by the project included environment and climate change, addressing skill gaps and aligning with labour market demands as well as energy sustainability and resource management.

Target group(s)

The project involved primary school pupils form seven different schools and vocational students from the coordinating school.

Methodologies

Each school implemented a project-based learning approach, integrating subjects like technology, electric power, and robotics. This approach fostered students' interest in technical professions and teamwork skills. Inclusivity was addressed through collaboration with a partner school specializing in meeting the needs of students with disabilities. A competition showcased innovation and brought together students from different primary schools, fostering cooperation.

Innovation environment

The project exemplifies a successful integration of learning spaces and technology, spanning classrooms, school workshops, and more. To streamline project activities, students designed a mobile app, reducing the reliance on printed materials. Collaboration among multiple schools and teachers from various subjects promoted teamwork, professional development, and the exchange of best practices. This collective endeavour not only improved project outcomes but also cultivated an engaging learning environment.

Teachers' role

Teachers played a vital role in the project, acting as facilitators for learning and production. Their enthusiasm positively influenced student motivation and introduced them to innovative teaching methods. The collaborative experience with teachers from other schools was a unique opportunity that enhanced their knowledge and skills.

Impact and output

The project significantly contributed to the promotion of vocational education and training (VET). The coordinating school saw a notable 25% increase in enrolment, partially attributable to the project's impact. Students involved gained knowledge in energy, technology, sustainable environments, and robotics. They also acquired skills in mobile app development. Even disadvantaged groups displayed heightened interest in VET. Knowledge and experiences were shared among different student and teacher groups, effectively enhancing STEM competencies in regional primary schools and addressing curriculum gaps.

European Commission

SPAIN

EARLY CHILDHOOD EDUCATION AND CARE

Young entrepreneurs at school

Project Coordinator: **CEIP Vadorrey Les Allées**
Project reference: *2018-1-ES01-KA229-050321*

Project partners:

- **Agrupamento de Escolas Marinhas do Sal, Rio Maior (Portugal)**
- **OOU Kiril i Metodij, Skopje (Republic of North Macedonia)**
- **Szkola Podstawowa nr 6 w Olsztynie (Poland)**

Topic(s) addressed

The topics addressed by the project included cultural heritage, entrepreneurial learning and early school leaving.

Target group(s)

The participants consisted of 1,400 teachers, infants and primary school pupils and their families.

Methodologies

In our educational approach, we prioritize innovative methods, including entrepreneurship, foreign languages, ICT, and CLIL. These methods foster interactive learning through research, project work, teamwork, and problem-solving. Students create their own content, both in and out of the classroom, to deepen their understanding.

Innovation environment

Our schools collaborated to foster entrepreneurial skills, positive values, creative technology use, and innovative practices. This was enriched by learning through outdoor activities, factory visits, cultural experiences, guest speakers, and environmental awareness initiatives. Collaboration among school communities, project partners, parents, and local authorities played a crucial role in project success.

Teachers' role

Teachers have gained valuable skills and experiences, improving their pedagogical methods, ICT proficiency, and language abilities. They've also developed digital-age competencies, including creativity, innovation, communication, collaboration, research, critical thinking, and problem-solving. Through teamwork, they've connected with fellow educators, integrated best practices, and gained valuable Erasmus+ project experience, contributing to more modern and dynamic educational environments within their organizations.

Impact and output

The project's impact has been extensive, reaching our students, teachers, support staff, families, local community, educators in similar fields, neighbouring schools, and kindergartens. We've shared our experiences at Erasmus meetings in our region, national school gatherings, innovation events, and eTwinning days. Our outreach extended to the broader public through media coverage and conferences, involving eTwinning users, regional representatives, national directors, and local authorities. We also made an effort to include participants facing challenges, providing them with opportunities to participate in the project.

European Commission

SPAIN

PRIMARY EDUCATION

Walking through the memory with Immersive Technologies

Project Coordinator: **CEIP Ponte dos Brozos**
Project reference: *2019-1-ES01-KA229-065937*

Project partners:
- **Grupamento de escolas de Barcelos (Portugal)**
- **Centro Público Integrado O Cruce (Spain)**
- **I.C. Borsellino Ajello (Italy)**
- **Özel Anabilim Ortaokulu (Türkiye)**

Topic(s) addressed

The project addressed a range of topics, including ICT, digital competences, creativity, cultural heritage, early childhood and primary education, artificial intelligence, robotics, coding, programming and virtual reality.

Target group(s)

The initiative attracted an impressive number of participants including 2,000+ students and 100+ teachers.

Methodologies

The students engaged in design-oriented and project-based studies, using games created by themselves to enhance their thinking skills and foster a culture of sharing through group work. These learning experiences encompassed cooperative learning, design thinking, project-based learning, place-based learning, experience-based learning, peer-to-peer social learning, collaborative learning spaces, DIY activities, educational games, and informal learning facilitated by the Science club.

Innovation environment

The project focused on establishing safe and innovative learning environments, leveraging immersive technologies for expanded learning spaces, and promoting sustainable resource use through cloud-based platforms. We also emphasized open sharing of knowledge and resources, adopting a holistic approach to foster creativity, entrepreneurship, and active participation. Through cross-sectoral cooperation, we enriched overall learning experiences and created inclusive educational environments.

Teachers' role

In this project, teachers played a key role as agents of innovation. They actively contributed to the development and implementation of innovative learning experiences for students, exploring new pedagogical approaches through immersive technologies, and continuously enhancing their digital literacy and teaching skills. Collaboration with peers within and among partner schools allowed them to exchange experiences, ideas, and resources, collectively contributing to the project's objectives.

Impact and output

The project's impact is widespread. Students actively engaged with immersive technologies, delving into cultural heritage and honing skills like creativity and critical thinking. These technologies made learning inclusive, benefiting various students. Moreover, the project's influence extends beyond participants, reaching other students, teachers, schools, and the community. Through conferences, workshops, and media, it shared outcomes, methodologies, and best practices.

European Commission

SPAIN

SECONDARY EDUCATION

Bridging the Dream Gap: Breaking Barriers, Building Futures

Project Coordinator: **IES Parque de Lisboa**
Project reference: *2019-1-ES01-KA229-064036*

Project partners:

- **Convitto Nazionale Canopoleno, Sassari (Italy)**
- **Konak Sehit Ömer Halisdemir Bilim ve Sanat Merkezi, Izmir (Türkiye)**

Topic(s) addressed

The projects focused on social and educational values in European heritage, especially the female role models. It addressed gender equality in regards to professional aspirations and more specifically, ICT – digital competences.

Target group(s)

The initiative involved 139 lower secondary students, 27 teachers and 59 hosting families.

Methodologies

Utilising project-based learning, we placed students at the forefront of collaboration within multinational teams through our four TwinSpaces. This approach incorporated both cross-curricular lessons and multidisciplinary methodologies.
Our students actively engaged in face-to-face interactions, interviewing professional women and gaining first-hand experience at their workplaces, which included research centres, museums, and universities. Additionally, they participated in workshops hosted by these accomplished women.

Innovation environment

We highlighted the extraordinary contributions of European women in history and modern professions, igniting students' aspirations within these innovative settings. Through multinational student teams, we nurtured collaboration and digital skills, enabling inventive project creations that celebrate professional women's achievements.
Lastly, our products are translated into four languages for broad accessibility, spreading empowerment and gender equality within diverse innovative environments.

Teachers' role

Teachers played a pivotal role in the project. They coordinated activities, structured the TwinSpace, and guided students through project-based learning. They also presented the project at school meetings and as exemplary teaching practices in teachers training courses.

Impact and output

Our project has delivered tangible and intangible results. We've created web content, digital exhibits, and materials in four languages. Intangibly, we've reduced gender biases, empowered students, and boosted their career aspirations. We've honed critical thinking, collaboration, creativity, and digital skills. Our project has instilled a sense of European citizenship and promoted inclusivity. We've shared our success through school open days, teacher training courses, and recognition in external guides.

European Commission

SPAIN

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

VROAD. Virtual Reality applied to roadwork training in European construction industry

Project Coordinator: **Fundación Laboral de la Construcción**
Project reference: *2018-1-ES01-KA202-050294*

Project partners:

- **Gamificación del aprendizaje y consultoría, S.L. (Spain)**
- **Formedil Piemonte (Italy)**
- **Centro de Formação Profissional da Indústria da Construção Civil e Obras Públicas do Sul 'Cenfic' (Portugal)**
- **BTP CFA Indre-et-Loire (France)**

Topic(s) addressed

The project revolved around digital transformation, innovation in vocational education and training (VET) and raising attractiveness of this education level.

Target group(s)

The project brought together a wide range of stakeholders, including VET institutions, road work experts, construction professionals, trainers, trainees, health and safety entities, new applied technologies experts, and relevant public bodies.

Methodologies

The virtual reality (VR) experience, accompanied by a didactic guide, introduced a novel pedagogical approach, enhancing both trainees' and trainers' ICT skills and digitizing construction sector training. Collaboration was pivotal in developing the theoretical and practical framework, enabling active learning through VR technology and serious gaming techniques.

Innovation environment

VR demonstrated its innovative potential by offering immersive training and the safe practice of hazardous activities. This project is a cutting-edge initiative, introducing VR into construction vocational education and training. To fully leverage this innovative tool in the teaching context, it was essential to provide robust support to trainers and trainees. The creation of the *Practical Guide* enhanced the adoption of this innovative technology for a more effective and innovative learning experience.

Teachers' role

Teachers' collaboration was pivotal in shaping a shared, inclusive vision for our project. We developed pedagogical guidelines in the form of a Frequently Asked Questions (FAQ) Manual to assist trainers in effectively integrating VRoad into the teaching process. Additionally, we provided technological guidelines through a video tutorial, empowering trainers to autonomously manage the VR tool.

Impact and output

The project's impact is wide-ranging: it has upgraded construction workers' skills, made teaching more innovative, modernized VET centres, improved the VET system, promoted collaboration among partners, and enhanced the sector's image through innovative training technology.

European Commission

SWEDEN

PRIMARY EDUCATION

EMPOWER2LEARN

Project Coordinator: **Utbildningskontoret, Norrköpings kommun**
Project reference: *2019-1-SE01-KA201-060386*

Project partners:
- **Education Development Trust (United Kingdom)**
- **Stitching Hogeschool Van Arnhem Ennijmegen Han (the Netherlands)**
- **Hogeschool PXL (the Netherlands)**

Topic(s) addressed

The project addressed important topics of inclusion and equity as well as ICT, new technologies and digital competences. It also focused on new innovative curricula and educational methods.

Target group(s)

The activities involved around 450 educators and teachers in 50 schools. A hundred stakeholders also participated in the project.

Methodologies

The project primarily emphasized ICT, but its multidisciplinary approach, key competence development, and the potential to connect formal, non-formal, and informal learning as project outcomes enhanced inclusion, participation, and cooperation.

Innovation environment

By individualizing learning, schools and teachers are enabled to create innovative and tailored learning spaces, adapted to each pupil while making the most of available resources. The project's output is not limited to a particular subject or grade but can benefit any learner throughout their educational journey.

Teachers' role

By involving teachers in the project, EMPOWER2LEARN was able to provide tailored content and training for teachers, thus enhancing their skills and competences.

Impact and output

New practices and creative methods of teaching with personalized learning will certainly contribute to the development of ICT across a range of curriculum areas.

European Commission

SWEDEN

SECONDARY EDUCATION

We are different, we are same, a project about diversity

Project Coordinator: **Hultdalsskolan**
Project reference: *2018-1-SE01-KA229-039094*

Project partners:
- **Škola umeleckého priemyslu (Slovakia)**
- **Istituto Istruzione Superiore "Pertini-Santoni" (Italy)**
- **I.E.S Lazaro Carreter (Spain)**

Topic(s) addressed

The primary focus of the project was put on the general topics of inclusion and equity.

Target group(s)

The project activities involved 139 students aged 14-17, including those with special needs, as well as nine teachers.

Methodologies

The project focused on personal, social, and learning-to-learn competencies. Its methodology was based on activities related to tolerance, bullying, diversity, and special needs education. By promoting intercultural competence, media literacy, critical thinking, and addressing discrimination, racism, and bullying, the project aligns with the horizontal priority of social inclusion. Additionally, an online diversity toolkit was developed, and the eTwinning platform was used for sharing and communication.

Innovation environment

The project results, which emphasized best practices in creating innovative environments to work with diversity, were disseminated within the partnership, targeting students, teachers, school leaders, and school staff. This aligned perfectly with the criteria for a whole-school approach.

Teachers' role

The teachers involved in the project played a crucial role in influencing innovative teaching and learning processes. They achieved this through various means:
Firstly, teachers expanded their repertoire of teaching methods by sharing best practices. Additionally, all activity themes were collaboratively planned by participating teachers and students.
Furthermore, the lead teachers demonstrated effective collaboration, successfully addressing various challenges along the way.

Impact and output

The project produced tangible results, including increased tolerance, reduced bullying and discrimination, and the development of interculturally skilled students. It promoted critical thinking and provided diverse perspectives on diversity, tolerance, and bullying for both students and teachers.
It also boosted students' confidence in communication, effectively included those with fewer opportunities, creating a strong sense of belonging.
A student remarked, "I wish the Erasmus+ group was my class every day." Additionally, it empowered parents to combat intolerance effectively.

European Commission

TÜRKIYE

PRIMARY EDUCATION

Play More Learn More

Project Coordinator: **Kazim Karabekir ilkokulu**
Project reference: *2019-1-TR01-KA101-069824*

Project partners: **ITC International Prague (Czechia)**

Topic(s) addressed

The training programme used for the project focused on new innovative curricula and educational methods, as well as development of training courses. It revolved around subjects of ICT, new technologies and digital competences.

Target group(s)

The main target groups of the project consisted of kindergarten through 1st to 4th-grade students, ranging in age from 5 to 10 years old.

Methodologies

The project utilised technology-based methods, integrating educational digital games across the primary school curriculum. This fostered the development of digital competencies among teachers and students. QR codes were used for homework assignments, and strategy games were shared via QR codes as well. The lessons emphasised collaborative work and problem-solving through game-based learning, creating dynamic and lasting learning environments that drove digital transformation in our classrooms.

Innovation environment

The technology was effectively integrated into learning spaces by enriching educational environments. Through a comprehensive web search, we curated educational digital games suitable for the primary school curriculum and organised them into QR codes by subject, providing access to all our colleagues. A variety of devices were used, including mobile devices, smartboards, tablets, and computers, to enable the use of these educational digital games. This approach transformed the classrooms into technology-based learning spaces.

Teachers' role

Within the scope of the project, eight teachers at the institution specialised in this field through game-based learning and gamification training given by the ITC International course provider in Prague. These teachers played a pivotal role in disseminating their knowledge within the school, ensuring that all our teachers benefited from their experiences. Consequently, the school's teaching staff gained the requisite expertise in designing effective learning environments.

Impact and output

The innovative teaching methods employed by the project, transformed classrooms into high-quality, engaging spaces. Teachers' competencies in creating game-based and technology-driven learning environments increased significantly. They improved in making education enjoyable for children, resulting in a substantial academic boost to 90%. We also promoted inclusive education, providing students without devices the chance to play educational computer games in classrooms. Parents actively supported the adoption of technology, and students played an active role in the game-based learning process, even during homework.

European Commission

TÜRKIYE

SECONDARY EDUCATION

Designing Future Innovative Learning Spaces

Project Coordinator: **Ministry of National Education – General Directorate of Innovation and Educational Technologies (MoNE DGIET)**
Project reference: *2019-1-TR01-KA201-076567*

Project partners:
- **Centro Autonómico de Formación e İnnovación (CAFI) (Spain)**
- **European SchoolNet (EUN) (Belgium)**
- **Hacettepe University (Türkiye)**
- **Future Learning Lab Vienna (FLL Wien) (Austria)**
- **The University of Lisbon (ULisboa) (Portugal)**
- **Zakladni skola Dr. Edvarda Benese (Czechia)**

Topic(s) addressed

Leveraging open technology and open learning resources for quality content and learning experiences was the main focus of the project. It also dealt with ICT new technologies and digital competences, pedagogy and didactics, as well as inclusion and equity.

Target group(s)

The project targeted a large group of teachers and trainers across various educational institutions including secondary schools, universities, local authorities and ministers of education.

Methodologies

The project aimed to create a roadmap for teacher professional development and guide schools in designing innovative learning spaces, progressing from theory to practice. It developed a "Methodological Framework for Innovative Classroom Training" as a theoretical foundation and a practical guide for teacher trainers. The project also created learning scenarios as real-life examples and offered blended capacity-building activities.

Innovation environment

'Design Future Innovative Learning Spaces' promoted innovation and technology-enhanced learning within schools and teachers' practices through a multifaceted approach. This included analysing successful practices in innovative learning spaces involving various stakeholders, developing a strong theoretical foundation, strategies, and guidelines to enhance pedagogy within these spaces, supporting practical implementation through interdisciplinary learning scenarios, establishing an accessible online training platform for a wide audience at national and EU levels.

Teachers' role

The project primarily aimed to promote innovative learning spaces in education and develop an online training platform for K-12 teachers and trainers. The main focus was on these target groups as they play a pivotal role in improving teaching skills and competencies. As part of the project's core activities, most participants were teachers and trainers who had completed the training courses and teacher capacity building program.

Impact and output

Data from Pan-European Training, including self-reviews, pre-course, and post-course surveys, revealed strong participant motivation for innovative approaches and learning spaces across three diverse groups. The training included three types of sessions: one for Pan-European Trainers with live sessions and online content over four weeks, followed by scenario development; one for Trainers' Training in Austria, Czechia, Spain, and Türkiye, covering similar topics; and one for teachers from these countries conducted online, overseen by local trainers. Detailed analysis showed that participants significantly improved their knowledge of innovative pedagogies and technology integration in teaching.

European Commission

TÜRKIYE

VOCATIONAL EDUCATION AND TRAINING SCHOOLS

Code is Loading

Project Coordinator: **Bursa İl Milli Eğitim Müdürlüğü**
Project reference: ***2018-1-TR01-KA201-058963***

Project partners:

- **Ali Osman Sönmez Mesleki ve Teknik Anadolu Lisesi (Türkiye)**
- **Liceo "Rosa - Gianturco" (Italy)**
- **Bálint Márton Általános Iskola És Középiskola (Hungary)**
- **Universidad De Castilla - La Mancha (Hungary)**
- **Europa Training (UK) Ltd (United Kingdom)**
- **Centrum Edukacyjne EST (Poland)**
- **Agrupamento De Escolas Domingos Sequeira (Portugal)**

Topic(s) addressed

Among the topics tackled by the project were ICT, new technologies and digital competencies which included coding and programming. Also new innovative curricula and educational methods were addressed as well as development of training courses.

Target group(s)

The primary target group included pupils who were directly interested in coding and individuals who were willing to learn, had a tendency to code, knew a programming language, or wanted to learn how to code. This group comprised students, teachers, and other adults.

Methodologies

The 'Code is Loading' project stands out for its innovative approach as an online coding platform with social media features for students and users. Students showcased their software development progress in various coding languages while learning, receiving likes and comments.Users engaged with experts through instant messaging, collaborated on international software projects, and participated in platform competitions, boosting motivation for coding projects. They also served as volunteer coding trainers to enrich platform content, creating a network of coders.

Innovation environment

The developed platform boosted users' self-confidence and fostered international interactions, enhancing communication and foreign language skills alongside coding project development. It provided children and youngsters opportunities for language development and a valuable "learning from mistakes" experience. This platform created a free, accessible, and globally connected learning environment independent of time and space.

Teachers' role

Expanding the project's reach ensured accessibility for all, including disadvantaged individuals, positively impacting the learning aspect. The platform catered to everyone, from beginners to professionals. Each project partner and coordinator teacher conducted monthly webinars for 12 months, featuring experts in coding. These webinars, lasting at least one hour, allowed users to ask questions, see sample applications, and assess their coding projects, fostering high-level information sharing.

Impact and output

Students and platform users had the opportunity to improve coding and programming skills using various tools and software, demonstrate coding projects in different programming languages, enhance their foreign language communication skills, express themselves and share knowledge, become more aware of their European citizenship, gain a deeper understanding of technology and its logic, realize their ability to control and engage with technology, get motivated to use technology for their benefit, raise awareness about the importance of ICT and coding education in schools, and promote coding and programming awareness in society.

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