eTwinning: teaching, creating, innovating



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Erasmus+

Sean Monnet Youth Higher education Vocational education and traini Adult education

School education

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eTwinning: teaching, creating, innovating

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2

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5

	Foreword	6
Ľ	Introduction	8
	1.1. What does this book offer?	10
	Innovation and education	12
Le	2.1. Rethinking education: the power of innovation in shaping the future of learning	13
	2.2. European policies, actions and initiatives on education and innovation	15
0	2.3. LifeComp framework: a European competence framework for better lives in our uncertain world	20
U	When innovation inspires teachers	26
	3.1. Kindergarten of Avlonari, Evia, Greece	27
	3.2. Materská škola Iľjušinova 1, Bratislava, Slovakia	32
	3.3. OS Petra Preradovica, Zadar, Croatia	35
	3.4. Karlbergs Skola, Stockholm, Sweden	39
	3.5. Colegiul Național Petru Rareș, Beclean, Romania	43
	3.6. Collège et Lycée Pierre de Coubertin, Font Romeu, France	48
	3.7. İlhami Ertem Anadolu Lisesi, Edirne, Türkiye	52
	3.8. II Liceum Ogólnokształcące im. Króla Jana III Sobieskiego w Kraków, Poland	55
	3.9. ITCS 'G. Zappa' di Saronno, Saronno, Italy	60
	3.10. INS Ronda, Lleida, Spain	65
	Conclusion	70

\sim		
(4))	(4)

(7)

Margaritis Schinas Vice-President of the European Commission for Promoting our European Way of Life

Forewor

6



We will need breakthrough, innovative solutions to counter the crises of the future. And we will in particular need a thriving deep tech sector, where well-trained experts confidently combine science and engineering with the physical, biological and digital domains.

Without education, we will not be able to achieve this goal.

It is important that we ensure that innovative quality education and training is provided to the EU's youth and that adults have access to innovative quality re- and upskilling. Everybody must learn to think outside the box. I am therefore delighted that the eTwinning community has chosen the topic of education and innovation as their theme for 2023, and dedicated this book to it.

Education is central for planning, building, and deploying innovative methods, central for nurturing talent. Education plays a key role in developing, disseminating, and realising the potential of knowledge and innovation. And innovation in education is multifaceted: it can come in the form of early identification of learning needs, of dynamic organisation of group learning, of novel educational resources, or of support with student orientation.

And what is education without educators?

This is what makes the eTwinning community so special. When the Erasmus+ programme 2021- 2027 was given an overall budget of more than EUR 26 billion, it was in recognition of the importance of education and training. We wanted to find more and better ways for exchanges and learning mobility, and eTwinning, as part of Erasmus+, has developed into one of our most impressive success story.

I hope the innovative school practices in this year's eTwinning book will inspire the teachers and education staff amongst the readers to try new classroom activities and teaching methods. Continue to connect with other teachers to exchange knowledge and experiences, keep learning from one another, and I am confident that by next year, we will read about the new, innovative projects you will have developed in your own classes.

Together, we will make Europe a global powerhouse for innovation, based on quality education and training.



Introduction

Defining innovation can be a complex task, as it can mean different things to different people depending on their context and perspective. In essence, **innovation is a mindset** that involves being open to new ideas, experimenting with different approaches and being willing to take risks to bring about positive change.

Innovation in education can bring numerous benefits to both teachers and pupils. It can **improve the quality of education, enhance pupils' engagement and motivation** and prepare them for the challenges of the future. However, fostering innovation in education can present some challenges. Teachers and schools must overcome various obstacles to successfully integrate innovative practices into their curriculum.

One of the **main challenges**

is the lack of resources and support. Teachers often struggle with limited funding, access to technology and professional development opportunities. Additionally, traditional teaching methods and curriculum restraints can hinder the process of change, making it difficult to incorporate innovative approaches. Furthermore, stakeholders such as parents and other community members may not fully understand or support innovative practices, making it challenging to implement new ideas.

Despite these challenges, there are ways that teachers and schools can foster innovation in education, and eTwinning is one of them. Over the years, eTwinning has been perceived as an innovative practice among teachers who are seeking to enhance their pedagogical methods and prepare their pupils for the challenges of the future. eTwinning also promotes innovation through social, mental and emotional well-being in schools.

In addition, eTwinning provides an excellent example of how collaborative learning, a crucial element of innovative education according to the 2030 European training framework. can be facilitated through digital tools. enabling teachers and pupils to work together on projects using innovative pedagogical methods such as project-based learning. the flipped classroom model and inguiry-based learning. These methods promote critical thinking, problem-solving and communication skills, allowing pupils to **develop** the competences necessary for success in the 21st century.

(9)

Considering that the <u>Digital</u> <u>Education Action Plan</u> (DEAP)

highlights the importance of developing digital competences in teachers and pupils, eTwinning can provide an excellent opportunity for both to develop their digital competences through collaborative projects that can deal with a variety of innovation topics, such as artificial intelligence (AI) and virtual reality.

eTwinning also promotes the development of additional <u>Key</u> <u>Competences for Lifelong Learning</u> through its emphasis on pupilcentred and personalised learning. eTwinning projects encourage **pupils to take an active role in their learning, promoting their sense of ownership and engagement.** Teachers can tailor projects to the needs of individual pupils, allowing them to learn at their own pace and in their own way.

Ongoing professional development opportunities that

focus on innovative pedagogical practices, such as training on new technologies, strategies for collaborative learning and approaches to personalised learning, are another approach to innovation. Teachers in eTwinning have opportunities to do this, such as by participating in webinars, massive open online courses and online courses, but, mostly, they have the opportunity to share their experiences and ideas with other colleagues and learn from each other.

Finally, <u>eTwinning Schools</u>¹, as exemplars of inclusive and learning organisations, can foster innovation by adopting a whole-school approach, which involves promoting a culture of innovation that permeates throughout the school community. This approach involves all stakeholders, including teachers, pupils, parents and the wider community, in the innovation process. eTwinning Schools can promote collaboration and shared leadership and can encourage pupils to take an active role in their learning, becoming agents of change and promoting a sense of ownership and engagement. **As models of innovation, eTwinning Schools can inspire other schools to adopt similar approaches** with the aim of shaping a culture of innovation and collaboration across the education sector.

1.1. What does this book offer?

The aim of this book is to provide valuable insights into **the impact** of eTwinning on education and innovation, inspiring teachers to get creative with eTwinning.

The first chapter explores the concepts of innovation and education, and the EU policies, actions and initiatives on education and innovation. The second chapter presents 10 case studies of eTwinning teachers who work in schools that have received the eTwinning School Label. Regarding the case studies. teachers were invited to participate by completing a questionnaire that focused on their project work and the role of innovation in their school. Moreover, the teachers participated in online interviews, during which supplementary questions were asked with the aim of gaining a deeper insight into their work. The selection was based on criteria such as country allocation. educational level (early childhood education and

care, primary, secondary, uppersecondary and initial vocational education and training (IVET)) and area of work (rural or urban).

In each case study, you will learn about:

- how innovation is perceived and manifested in teachers' everyday teaching practice;
- what topics and themes are associated with educational innovation in teaching and learning;
- how innovation is connected with the eTwinning Schools;
- what challenges teachers, pupils and schools encounter in relation to introducing innovation;

- how these challenges are tackled or transformed into opportunities;
- the impact of introducing innovation in education;
- how eTwinning projects have facilitated the uptake of educational innovation.

These case studies are just a few examples of how eTwinning has inspired innovation in education, and we hope they serve as a valuable resource and inspiration for all teachers.

Let's find new and creative ways to engage pupils and foster a love of learning.

(11)

Let's embrace change!



^{1 -} eTwinning Schools are officially recognised at the European level as role models for eTwinning and form a network of leading schools to inspire the future development of the action.

(13)



2.1. Rethinking education: the power of innovation in shaping the future of learning



Dimitrios Vlachopoulos, Associate Professor and Director of E-learning, Rotterdam School of Management, Erasmus University

As a recognised key driver of economic growth and societal advancement, innovation holds immense potential to enhance both teaching and learning practices and is the modus operandi of school units. Over the last few vears, there has been growing interest in the role of innovation in school education, with teachers exploring new ways to incorporate innovation into the classroom to improve engagement and the effectiveness of their teaching practice, and with school leaders implementing innovation to enact positive change in school culture, resource allocation. communication and collaboration. Innovation is determined by several factors, including culture, values, history and the technological and financial resources of a particular society,

country or organisation. The influence from these factors **makes** innovation a context-bound concept, since what constitutes innovation in one context may not be considered innovative in another context. For example, the use of learning management systems in teaching and learning can be considered as innovation in some contexts, particularly where access to technology is limited. However, there are countries and/or education organisations where the use of these systems is the norm, and innovation involves the creative use of more advanced technologies to enhance the education process.

Specifically, AI systems are now part of our daily lives, and as they evolve and become more widespread, it is crucial that we gain a deeper understanding of their effects on education. Al is associated with educational innovation as a means to support teachers and **pupils**, since it can be used to analyse data on pupil performance and engagement, providing insights into how they learn and which pedagogical strategies are most effective. This can lead to data-driven decisions for the improvement of learning outcomes (predictive analytics). AI-powered tutoring systems can provide pupils with real-time feedback and personalised guidance, while chatbots can become pupils' virtual teaching assistants, providing them with academic support. Al can assist teachers in creating personalised educational content, including lesson plans, guizzes and

tests. Of course, **the** <u>ethical use</u> of AI is crucial, particularly as far as the individualisation of learning (suitably focused learning content and curricula), privacy (protection of pupil data) and equity (biased or discriminatory algorithms) are concerned. In this context, it is essential for both teachers and pupils to have a foundational knowledge of AI and data usage, so they can engage with this technology in a constructive, analytical and ethical manner and take advantage of its full benefits.

Moreover. game-based learning and digital storytelling are another two examples of creative use of technological developments in educational innovation that have gained significant attention in recent years. With the advancements in technology, game-based learning has become more interactive, immersive and engaging. For example, virtual reality and the metaverse have enabled game developers to create 3D environments that provide an authentic learning experience to pupils. Game-based learning platforms can now be accessed from smartphones and tablets, which provides flexibility and convenience. Digital storytelling combines multimedia elements to facilitate the understanding of abstract ideas and complex concepts and to help pupils retain information while staying engaged and motivated throughout the learning process.

Furthermore, **innovation has the potential to change school** **culture** by fostering a culture of experimentation, flexibility. collaboration and results-oriented thinking. It can also lead to more dynamic and adaptable resource allocation, as schools can prioritise investments based on what works best for their staff and their pupils. Digital transformation is rapidly changing the educational landscape, providing teachers with a range of benefits, including increased flexibility, reduced workload. enhanced communication and better self-efficacy. In this context, school leaders are tasked with reflecting on investments in technology infrastructure. professional development for teachers and staff, and policies and procedures for the ethical and responsible use of technoloay. Through adopting a strategic and collaborative approach, school leaders can effectively manage digital transformation and ensure that technology is used in ways that support pupil learning and achievement and staff's professional practice and well-being.

Although technology is undoubtedly associated with innovation, innovation is not only about technology. It is about the process of introducing new and creative ways of thinking, teaching, learning and operating; it is about adapting to the changing needs of pupils and finding creative solutions to meet those needs. For example, <u>blended learning</u> is not simply about mixing conventional face-to-face teaching with online teaching, it requires a deliberate and evidence-based pedagogical approach to integrate technology into the learning process. Active learning, collaborative learning and personalised learning are fundamental <u>pedagogical</u> <u>approaches</u> for the success of blended learning. Technology will lead to innovation if it is thoughtfully integrated within pedagogical theories, made accessible to all and used by trained teachers and pupils who are familiar with it.

As a result of this manifestation of innovation in school education. pupils enhance their creativity, critical thinking, collaboration, communication. information and digital literacy and other important 21st-century life skills, while having greater access to resources and personalised learning solutions. Innovation can also promote the wellness and self-care of **teachers and pupils** through the provision of resources and tools that support mental health and well-being, such as mindfulness applications, tutorials and guides, and tools for tracking physical activity and learning tasks, which are suitable for managing stress and prioritising (mental) health.

Innovation has become a driving force in school education, with teachers and school leaders exploring new ways to enhance teaching and learning practices through the integration of technology and creative pedagogical approaches. AI, game-based learning and digital storytelling are just a few examples of how technology can be used to improve learning outcomes and foster a culture of experimentation. collaboration and results-oriented thinking. However, it is important to ensure that the use of technology is ethical and responsible, prioritising the individualisation of learning, privacy protection and equity. Innovation in school education not only benefits pupils by enhancing their 21st-century life skills, it also promotes wellness and self-care for both teachers and pupils. Through a strategic and collaborative approach, school leaders can effectively manage digital transformation to support pupil learning and achievement and staff's professional practice and well-being.

2.2. European policies, actions and initiatives on education and innovation



Digital transformation powered by innovation and technological development is reshaping education and training, making the acquisition of digital competences key in an environment that is increasingly mediated by digital technologies. Advanced connectivity, the use of digital devices and the growing need for digital skills have served as catalysts for the digital transformation in education and training systems. The COVID-19 pandemic has further increased the need to develop the use of technoloav in education and training. Appropriate skills and competences and digital infrastructure and equipment are needed to ensure that teachers are sufficiently acquainted with technological tools. In adapting education to the digital age, ensuring appropriate implementation between education and training levels and sectors is essential. This is where the DEAP steps in as a call for greater cooperation at the European level to address these challenges and present these opportunities, and to support the education and training community, including teachers and pupils at the EU and international levels

The 2021-2027 Digital Education Action Plan

The 2021–2027 DEAP is the European Commission's flagship initiative that was adopted in September 2020. It sets a framework for high-quality, inclusive and accessible digital education, supported by reinforced cooperation and exchange at the EU level. The initiative's two long-term strategic priorities are to foster the development of a high-performing digital education ecosystem and improve digital skills and competences for all. Within these two priorities, a series of actions are due to be carried out. Moreover, the plan has led to the establishment of a European Digital Education Hub, a cross-sectorial community of practice that promotes cooperation and information sharing. The implementation of the 13 actions is already on track and more than half of them have been completed.

The DEAP aims to ensure stronger cooperation and closer collaboration between all key players across the EU. In addition to formal education, it also covers informal and nonformal education, based on a lifelong learning approach.

The DEAP contributes to the Commission's 'Europe fit for the Digital Age' priority and <u>NextGenerationEU</u>. It also supports the <u>Recovery and Resilience Facility</u>, which aims to create a greener, more digital and resilient EU. It is a key enabler in the vision of achieving a <u>European Education</u> <u>Area</u> by 2025 and contributes to achieving the goals of the <u>European</u> <u>Skills Agenda</u>, the <u>European Social</u> <u>Pillar Action Plan</u> and the 2030 <u>Digital Compass: The European way</u> for the Digital Decade.

The following examples of actions are predominantly aimed at educators and teachers, while highlighting different approaches and the importance of innovation and technology through the variety of actions in digital education.

Digital transformation plans for education and training institutions

This DEAP action includes support for the digital transformation plans of education and training institutions through Erasmus+funded cooperation projects. It includes setting up Erasmus+ Teacher Academies to enhance digital pedagogies and assist teachers in using digital tools, making this one of its priorities. Erasmus+ Teacher Academies create European partnerships and promote cooperation between teacher education institutions and training providers. Their objective is to offer support to teachers at the beginning of their career and strengthen their professional development. They encourage multilingualism, language awareness, cultural diversity and deep transnational cooperation between teacher-training institutions. The academies aim to create networks of communities of practice on teacher education, to offer teachers courses, modules and other learning opportunities on EU priorities, such as learning in the digital world, sustainability, equality and inclusion, and to develop and test different models of mobility in initial teacher education and continuous professional development.

Furthermore, this action includes the launch of <u>SELFIEFOTTEACHERS</u>, an online self-reflection tool that helps primary and secondary school teachers assess their digital competences and plan further training. Any primary or secondary teacher, within or outside the EU, can sign up. After completing a selfreflection assessment, participants receive certification and can apply for a digital badge.

SELFIEforTEACHERS, launched in October 2021, reached over 100 000 users by January 2023.

Common guidelines for teachers and educators to foster digital literacy and tackle disinformation through education and training

Digital literacy and addressing disinformation play a key role in the 2021–2027 DEAP. The <u>guidelines</u> for teachers and educators to foster digital literacy and tackle disinformation through education and training were developed from October 2022 by a Commission expert group on tackling disinformation and promoting digital literacy through education and training, and were accompanied by the expert group's final report.

(17)

Aimed at primary and secondary teachers and educators, they provide concrete, hands-on guidance by offering, for instance, practical tips, activity plans, insights on topics and cautionary notes. The aim is to develop a better understanding of digital literacy through education and training, promote responsible and critical use of digital technologies, and raise public awareness and improve knowledge about disinformation. Furthermore, they foster better awareness and knowledge on disinformation and allow for the responsible and safe use of digital technologies.

Discover the <u>factsheet</u> and <u>infographic</u> on the guidelines for teachers and educators on tackling disinformation and promoting digital literacy through education and training. The guidelines are translated into all official languages of the EU.

Ethical guidelines on the use of AI and data in teaching and learning for educators

18

Also in October 2022, the Commission published the <u>ethical</u> <u>guidelines on the use of AI and</u> <u>data in teaching and learning</u> <u>for educators</u>. An expert group developed these guidelines and the guidelines on disinformation. The group consists of experts on AI and data in education and training set up by the Commission. The guidelines provide teachers and educational staff, particularly in primary and secondary schools, with practical support and guidance by using concrete examples.

Further activities under this action include two calls for proposals launched in 2021 to raise awareness of opportunities and challenges of emerging technologies in the classroom: one on research ethics for the use of AI, and another on extended reality in education and training.

The executive summary of the expert group's final report published in October 2022 serves as a supporting document for the guidelines, which are translated into all official languages of the EU.

Digital opportunity traineeships

The Commission launched the digital opportunity traineeships (DOTs) pilot project in 2018 to enable pupils and recent graduates from higher education institutions to obtain practical experience in digital fields required by the job market. In 2021, the scheme was extended to include higher education staff and VET pupils and recent graduates. In 2022, the DOTs also became available for VET, school and adult-learning staff.

The DOTs aim to match the needs of companies in need of a digitally skilled workforce, with pupils and recent graduates looking for their first experience in the tech sector. This way, the DOTs tackle a variety of objectives. Traineeships in the fields of app, software, script or website development; the installation, maintenance and management of IT systems and networks; and in the fields of data analytics, cybersecurity and many more can qualify as DOTs. This will run until 2027.

European Digital Education Hub

The European Digital Education

Hub contributes to both strategic priorities of the DEAP. It reinforces the cooperation and dialogue between stakeholders in the area of digital education and supports EU Member States by setting up a network of national advisory services on digital education to exchange experiences and good practices on the enabling factors for digital education.

In concrete terms, it gathers stakeholders working on digital education to provide a space for information sharing and cooperation. The hub was launched in June 2022 and now has over 2 600 members. It links national and regional digital education initiatives and strategies, and connects national authorities, the private sector, experts, education and training providers and civil society through various activities.

The hub supports cross-sector collaboration and new models for exchanging digital learning content, addressing issues, such as interoperability, quality assurance, environmental sustainability, accessibility and inclusion, and EU common standards for digital education. By acting as a thinkand-do tank for digital education and engaging stakeholders in user-driven innovation through the Digital Education Hackathon, the hub supports the agile development of policy and practice.

The hub also organises series of '<u>Teachers as Researchers</u>' weeks, where educators can collaborate on finding answers to the challenges they experience in their day-to-day professional lives. The 'Teachers as researchers' series seeks to help the community to tackle digital education challenges and discover a new problem-solving approach based on collaborative research methodology. During the collabora(c)tive workshops. participants will get the chance to experiment with collaborative intelligence, writing and peerreviewing to investigate the core challenges of digital education. Some of the challenges discussed range from the accessibility of learners' work during distance teaching, and finding the right symbiosis between digital tools and special needs learners to teaching digital skills to learners at beginner level.

Overall, the DEAP is a strategic and concerted EU policy initiative that creates the basis for cooperation and joint action to address the challenges and opportunities for education and training in the digital age. The variety of actions are vital for proving the effectiveness, relevance and legitimacy of education and training systems in preparing for – and shaping – the future. By transforming education



(19)

(21)

and training systems in a more effective, sustainable and equitable way with digital education, DEAP contributes to creative, modern and inclusive education and training.

2.3. LifeComp framework: a European competence framework for better lives in our uncertain world



Arianna Sala, Joint Research Centre (JRC), European Commission

20

The transformation and innovation of the education system are longstanding priorities. There has been a growing emphasis on the need to shift from a teacher-centred approach to education to a learnercentred one to promote innovation in the educational system.

Schools, and – more broadly – universal education and training systems, as we know them today, are the product of the Industrial Revolution. Education and training systems were designed to prepare the labour force to meet the needs of the industrial age and contribute to rapid industrial and economic growth. Pupils were considered as passive receptors of the knowledge, and the teacher as someone who transmitted that knowledge and was expected to reproduce it faithfully.

While during the Industrial Revolution schools had to manufacture workers that could keep the industrial machines running at full steam, at this point in human history, where planetary boundaries are being exceeded and Al is supporting cognitive tasks we once considered to be exclusively human, the role of education and training must change. It is critical to shift the purpose of education and effect a profound transformation of the status quo to address the challenges posed by the green and digital transitions successfully.

If we look at the results of the 2018 Teaching and Learning International Survey study of the Organisation for Economic Co-operation and Development (OECD), which collected the views of teachers in 48 countries on the learning environments at their schools, we can see some signs of change in views on the purposes of education. However, it is also apparent that more widespread change would be desirable. In Member States, only 38 % of lower-secondary teachers declared that they frequently or always ask pupils to decide on the procedures to solve complex tasks; 34 % said they present tasks for which there is no obvious solution. That is less than 40 % of the EU

lower-secondary teachers surveyed who declared that they frequently implement teaching practices that require the 'cognitive activation' of pupils (i.e. practices that stimulate high-order competences such as critical thinking, problem-solving and decision-making, which are crucial to addressing the problems that we as humanity are facing).

A competence-based approach, in which learners develop the knowledge, skills and attitudes essential for active citizenship in today's world, would contribute to shifting from a teacher-centred way of understanding and promoting education towards a learner-centred one.

In 2018, the Council of the European Union adopted the <u>Recommendation on key</u> <u>competences for lifelong</u>

Learning, which identifies eight key competences that everyone needs for personal fulfilment, health, employability, social inclusion and active citizenship. These competences are literacy, multilingualism, mathematical competence and competence in science, technology and engineering, digital competences, citizenship, entrepreneurship, cultural awareness and expression, along with personal, social and learning to learn competences.

The JRC, the Commission's science and knowledge service,

has developed several theoretical frameworks in collaboration with scholars. policymakers and practitioners to establish a common language and a shared understanding of what the key competences are. Their purpose is to support Member States in implementing the recommendation at the local level. The JRC published the entrepreneurship competence framework (EntreComp, 2016), the European digital competence framework for citizens (DigComp 2.2. 2022). the European sustainability competences framework (GreenComp, 2022) and the European framework for personal, social and learning to learn key competence (LifeComp, 2020).

In 2022, the Member States adopted the Pathways to School Success Council Recommendation. which acknowledges the importance for children and adolescents to acquire a balanced set of cognitive. social and emotional competences to thrive in school and in life. We will therefore focus on the LifeComp framework. which describes nine socio-emotional and metacognitive competences to foster personal fulfilment and well-being, cope with uncertainty, develop collaborative relationships and approach learning from a lifelong perspective. LifeComp competences span three areas: personal, social and learning to learn.

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(23)



Figure 1. LifeComp framework at a glance

The competences in the personal area (self-regulation, flexibility and well-being) refer to **learning to be**. They involve being knowledgeable about a healthy mind, body and lifestyle and being skilled in how to cope with complexity, uncertainty and stress. They also involve seeking support and offering it when needed, staying resilient and developing the ability to work autonomously, and managing your career.

The competences in the social area (empathy, communication and collaboration) are related to **learning to live together**. They relate to the social nature of human beings: cultivating an attitude of collaboration, respecting human diversity, overcoming prejudice, empathising and compromising while participating in society.

The competences in the last area (growth mindset, critical thinking and managing learning) are related to learning to learn. These are needed to approach new ways of learning with openness and curiosity. to be confident about your capacity to learn and progress continuously, to critically analyse the vast amount of information we receive daily and to manage your own learning from a lifelong and lifewide perspective. In our rapidly changing world, pupils entering primary education today are likely to work in jobs that do not exist yet, use technologies yet to be invented or address unexpected global challenges. Therefore, we must teach our pupils how to become lifelong learners and self-direct their learning.

Recent advances in generative AI, such as the release of large

language models like ChatGPT, audiovisual generation tools and Al-driven recommender systems. have strengthened the debate on the challenges and opportunities of their use for individuals and society. On the one hand, generative AI technologies have the potential to automate and support people in many tasks, complement human decision-making processes and enhance productivity and efficiency. On the other hand, these technologies have also raised concerns about job displacement, privacy and security, and the veracity and bias of the information they generate. In this context, personal, social and learning to learn competences can play a significant role in helping individuals navigate the challenges of living in a world with AL

Let us consider two examples of LifeComp competences that are particularly relevant in the context of generative AI: critical thinking and self-regulation.

The information available online in the 'post-truth' era, in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief, is reaching us limitlessly, posing a potential threat to our democracies. It is, therefore, critical for citizens to be able to distinguish between facts, propaganda, opinions and rumours and to be committed to stopping the spread of misinformation and actively participate in reversing the trend that sees fake news spreading online farther, faster and more

broadly than the truth. Moreover, as AI technologies can be used to generate and recommend misinformation and deep fakes on a large scale, it is becoming increasingly difficult for individuals to distinguish truthful and reliable information from inaccurate and unreliable information. Critical thinking skills are essential for challenging the output of AI systems, for example by evaluating information and making informed decisions. Individuals with strong critical thinking skills may be better prepared to handle misinformation, identify biases and inconsistencies in the information they receive. evaluate the credibility of a source and consider different perspectives before making a decision.

On the other hand, AI technologies are increasingly influencing how we interact with others and spend our spare time. The recommender systems used by search engines. social media networks and online platforms collect data and analyse our online behaviours to offer personalised results based on the algorithms' prediction of what each user wants to see. These may result in potentially never-ending feeds designed to maximise user engagement. Research shows, for instance, that exposure to particular kinds of content on social media platforms, such as images of unrealistically slender body sizes. can trigger body image concerns and anxious feelings, especially among girls. People who develop self-awareness around these issues increase their ability to perceive

(25)

and recognise what triggers their emotions, thoughts and bodily responses. This can then allow them to advance in their selfmanagement and gain the capacity to understand how emotions, thoughts and values influence behaviour, and how to modulate and regulate them intentionally. Both self-awareness and selfmanagement are key aspects of the self-regulation competence that can help people to avoid excessive or harmful use of social media.

It is important to stress that all the LifeComp competences are learnable and teachable in formal, non-formal and informal educational settings in a lifelong and lifewide capacity. Moreover, research shows that when these kinds of socio-emotional and metacognitive competences are promoted through education, there is an improvement not only in pupils' well-being and mental health, but also in their academic success and employability. Based on the LifeComp framework, the JRC has developed a reference document to support educators and teachers in fostering learners' socio-emotional and metacognitive competences: *LifeComp into* Action – Teaching life skills in the classroom and beyond. It provides suggestions on how to

provides suggestions on how to create learner-centred learning environments and implement teaching methods to foster the development of LifeComp competences.

LifeComp into Action presents a set of inspirational principles, guidelines

and recommendations to support educators in creating learning environments focused on fosterina personal, social and learning to learn competences. Educators will also find a step-by-step explanation of how to implement 16 pupilcentred and research-based teaching strategies. Each strategy is mapped with an explanation of the particular competences that it is intended to develop, along with the group size, the time needed, the learning environment and the broad target age group. They are meant to help teachers and educators create learning activities that encourage learners to practise and hone LifeComp competences while working on the regular curriculum.

In conclusion, as the world faces complex challenges such as climate change, globalisation and the emergence of AI, education must empower new generations with the tools to address them. By promoting a competence-based education in which learners are required to develop knowledge. skills and attitudes that can be applied in real-world contexts, we can create more resilient, adaptable and knowledgeable societies that can face the challenges and opportunities of the future with confidence.

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In this chapter, we introduce 10 inspiring teachers who work in an eTwinning School. Through our interviews with them. we aim to provide insight into how innovation is perceived and integrated into their everyday teaching practices. We also sought to explore the challenges they face when introducing innovative practices into education and how they tackle these challenges or transform them into opportunities. Moreover, we highlight how innovation is a fundamental pillar of eTwinning Schools in relation to the eTwinning School Mission.

3.1. Kindergarten of Avlonari, Evia, Greece

Margarita Samoutian is a kindergarten teacher based in the rural island of Evia in Greece who joined eTwinning in 2015. She works tirelessly with her colleagues to provide the best education for their 35 pupils between the ages of 4 and 6. Margarita's school is located in a village, where the number of pupils has been declining over the years. Despite the challenges, the school welcomes immigrants and Roma pupils, and the teachers are committed to engaging young learners in the education system and eliminating early school leaving. She is an eTwinning ambassador and her dedication and innovative approaches have earned her European and national prizes, further highlighting her

commitment to providing the best possible education for her pupils.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

For Margarita, innovation in the classroom is a new perspective on the creative approach to knowledge, based on the interaction between class members, the knowledge they acquire and the teacher's experience. Through innovative teaching methods and tools, the communication method between the teacher and pupils, and between peers, is transformed. This collaborative process encourages both the teacher and the pupils to adopt new proposals and commit to implementing them.

(27)

However, the teacher plays a crucial role in ensuring that educational innovation is connected to the school curriculum, combining new pedagogical methodologies, and setting evaluation criteria for the entire process. To this end, Margarita introduced nature-based and project-based learning in her classroom, where pupils are brought into direct contact with natural landscapes and materials. This allows them to observe evidence, understand cause-and-effect relationships, experiment and find connections to the experiences they have in other environments. Through artful thinking² with thinking routines and the Freinet method ³, pupils can also express their ideas and emotions, get to

^{2 -} Artful thinking: https://pz.harvard.edu/sites/default/files/ArtfulThinkingFinalReport-1.pdf.

^{3 -} Freinet method: https://unesdoc.unesco.org/ark:/48223/pf0000014030.

know themselves better, increase their confidence, collaborate and accept different ideas – something that, as Margarita stated, contributes to their well-being.

According to Margarita, innovation at her school began in 2015 when she encouraged her colleagues to register for eTwinning. Since then, the teachers have transformed their approach to learning. In her words, 'eTwinning was a door that opened, and a new world appeared in front of us that gave meaning to our profession. We could see how other schools were working on the same topics and had the opportunity to think out-of-thebox.' Within eTwinning, Margarita and her colleagues have taken part in or coordinated more than 25 successful projects. These projects have not only contributed to creating strong partnerships but have also provided opportunities for participation in other Erasmus+ proiects.

Margarita's passion for innovation sparked when she attended a face-to-face conference and became an eTwinning ambassador. She took the initiative to create a network of local schools to promote environmental awareness among pupils. While only two schools were initially registered in eTwinning, 15 additional schools joined the network and used the platform to coordinate a national project aimed at promoting values such as diversity, volunteering and the protection of cultural heritage. Over the years, the schools integrated various eco-friendly



initiatives into their daily routine, such as creating school gardens, establishing material reuse corners and implementing recycling and composting programmes, all with the involvement of parents and the local community. As a result, the 'Artful Ecoteams' were awarded the green flag of Eco Schools Foundation for Environmental Education, and their region is one of the areas with the highest number of 'green' kindergartens.

The national project evolved into a European one, with the creation of 'Little Citizens' in 2022 with partners from Greece and Cyprus. One of the project activities involved pupils choosing different famous paintings that they think represent children's rights. The pupils then voted digitally for the paintings that best represented each right. By working in pairs, they processed the paintings in meetinas usina thinkina routines (artful thinking), which allowed them to gain knowledge about their rights, enhance critical thinking and develop an appreciation for different perspectives.

In the eTwinning and Erasmus+ project called 'Artful Ecoteams', with the participation of schools from Estonia, Greece, France and Portugal, pupils had the opportunity to learn about the benefits of sustainable nutrition. This activity not only helped preschoolers understand their ecological footprint, but also encouraged them to find solutions and adopt more sustainable behaviours. Through planting gardens and taking care of plants, pupils were able to discover the factors that benefit the growth of organisms, while also conducting experiments to gain awareness of environmental threats such as rubbish, drought and floods. By connecting these actions with pupils' daily lives, they were able to change their attitudes and become multipliers of sustainable practices.

According to Margarita, introducing innovative practices helped young pupils learn how to collaborate to achieve objectives. For instance, Margarita cited the 'STEAM Preschool Academy' eTwinning project, where pupils used storytelling to create robots, build a map out of waste materials and Lego bricks, and introduce elements and obstacles to the map while practising coding and programming. They communicated and collaborated in a new way to approach environmental issues and find solutions. Another example is the interactive trivia game called 'Ecosystems', created by the 'Ecomates: Little Detectives' project and featuring the project's mascots. This game helped pupils understand how an ecosystem maintains balance through experiments

and discussions. In the following year, the pupils identified social issues and became volunteers to support vulnerable groups. Overall, Margarita explained that eTwinning partnerships always contain innovative concepts.

But innovation does not come without its challenges. Margarita faced difficulties when introducing new technological equipment such as the robotic kit, which led to demotivation among some young pupils. To tackle this, Margarita formed two mixed aroups of pupils with different talents. which resulted in the successful completion of the activity. Another challenge was to explain the new activities to parents and find a way to incorporate them both at home and in school. Margarita tackled this issue through regular briefings and meetings with parents. She said, 'Genuine communication between teachers and parents is necessary. to ensure that the efforts made in the classroom are reflected in the pupils' progress.'

(29)

Margarita emphasised that different pedagogical approaches are crucial and that tools should support the learning process. For instance, pupils can use interactive whiteboards to draw with pupils from other schools, collaborate on presentations, watch related videos, create brainstorming sessions or play games. They can also use classroom computers to work in pairs, using educational software or engaging in digital feedback games. Pupils can even vote or rate actions through specially designed questionnaires without teacher guidance. In addition, pupils can use tablet apps (both indoors and outdoors) to zoom in on objects. take photos or learn more about garden plants. They often use voice instructions to look up images or view microscope results. Margarita commented that it is important to mention that ICT is essential not only for communication (teleconferences between schools). but also for collaboration (digital tools). During the 2022/2023 school year, young pupils started making short tutorials to help their peers or partners become familiar with digital tools.

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

'In our kindergarten, there are three kindergarten teachers and an English language teacher. Initially, there were some disagreements among the team, and not everyone was open to new ideas. However, with the introduction of eTwinning projects in 2015, the teachers began to work together towards a common goal: ensuring that our pupils are happy, safe and develop their skills every day. The head teacher played a crucial role in this transformation. She encouraged collaboration and gave ample space for all ideas to flourish'. Margarita mentioned

In recent years, the school has taken great strides to prioritise the needs of the organisation and involve all members in decisionmaking processes. As an eTwinning School, they have recognised the importance of continuous training and utilising the talents of their members to renew school regulations through participatory procedures. 'Our school's open invitation to parents and vound pupils to contribute to the contract for the operation of the school has resulted in reduced instances of phenomena that affected daily school life, such as late arrival and unexcused absences. This innovative dialogue has transformed our school into a meeting place for many families', Margarita pointed out. Moreover, the school has implemented another innovation for 2022/2023 by engaging experts to improve school-family relations. The first briefing focused on setting boundaries for the pupils' use of technological media, and they plan to have further communication with a psychologist and social worker from the area in the following school period.

The staff at the kindergarten hold regular meetings to discuss the progress of their eTwinning projects, and any challenges and successes they face. If any innovative ideas arise from the classroom, the team analyses specific elements through a SWOT (strengths,



weaknesses, opportunities and threats) analysis and works to implement them at the school level with the aim of improving pupils' learning, the quality of results and the overall effectiveness of the school. For instance. composting began as an idea during an Erasmus+ partnership and continued as a practice at home using improvised compost during guarantine. Recognising its potential for cooperation with other organisations, the teachers reached out to the VET school in the area. Older pupils visited the kindergarten and informed the younger ones about the proper composting process, offering tips. In the experiential action that followed, pupils and their families prepared the school's compost, and today all organic waste goes into the composter.

As Margarita stated, when implementing an innovative activity. organisations may face a range of challenges. One significant obstacle is the lack of technological equipment or resources needed to implement new ideas. Technological tools and equipment are essential for monitoring progress, promoting innovation and communicating its benefits to stakeholders. However. acquiring the necessary resources can be a difficult and timeconsuming process, often requiring schools to seek sponsorships or funding from external sources.

Before implementing eTwinning and other Erasmus+ projects, the kindergarten only had one computer; however, with the help



of these projects, they were able to acquire more devices such as a big interactive board, tablets and robots. These tools have greatly aided them in implementing their projects. For example, the robots have given pupils new ways to think creatively and have enabled them to come up with innovative solutions, such as having a robot to help with recycling through role plaving. Additionally, tablets and computers have been instrumental in capturing and sharing project results, such as taking videos or pictures of specimens under a microscope. Without this equipment, it would have been difficult to share their project in a high-quality way.

(31)

Moreover, Margarita explained that schools may also face challenges related to the knowledge and experience of their staff. For instance, educators in rural areas may have limited access to professional development opportunities, making it challenging to acquire the skills and knowledge needed to implement new ideas effectively. While distance training has become more prevalent in recent years, it is not a substitute for face-to-face interactions and personalised training. Implementing innovation requires a comprehensive approach to address challenges related to technology, resources and staff development. Good collaboration among stakeholders can make innovation an everyday practice within an organisation.

3.2. Materská škola Iľjušinova 1, Bratislava, Slovakia

Michaela Rumanková is a special education teacher in a kindergarten school in the capital of Slovakia. She has been involved in eTwinning since 2017 and is an eTwinning Ambassador. She teaches pupils with autism spectrum disorder (ASD) in a standard kindergarten.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

Michaela believes that projectbased learning and STEAM activities, supported by digital technologies, are key innovations for her classroom. She has found that hands-on and sensory activities are particularly effective for pupils with ASD, who benefit from immersive learning experiences. For Michaela, her participation in eTwinning is also an innovation that helps pupils feel included and motivated to participate in class activities. Through eTwinning, pupils with ASD can participate equally with their peers, and teachers can develop new friendships and share best practices with like-minded educators. She emphasised. 'With my involvement in eTwinning, I realised how traditional my teaching was until now and how I can easily change my practices and dare to try activities that can really support my young learners' competence development.'

Michaela collaborates with another teacher at her school on various eTwinning projects and as mentioned previously, organises numerous STEAM activities. One of the eTwinning projects in which Michaela has participated is 'STEAM for Kids', a collaborative project involving Croatia, Greece, Lithuania. Poland. Romania. Slovakia and Türkive, implemented in 2021/2022. Using a STEAM approach, the children tackled various environmental problems such as pollution and environmental protection, working together to identify problems, brainstorm solutions and suggest changes for the better. Michaela emphasised the importance of raising children's awareness of environmental issues: 'By introducing children to the



wonders of nature and emphasising the importance of protecting the environment, we can instil in them a deep sense of responsibility from a young age.'

Throughout the project, pupils had the opportunity to explore, experiment, compare, measure and express themselves creatively through dancing, singing, painting and creating. They learned how to collaborate effectively, share their opinions and connect their project activities with other events such as European Code Week, Outdoor Classroom Day and the Scientix STEM (science, technology, engineering and maths) Discovery Campaign.

In another project called 'The Sense of Rainbow Colours'. Michaela collaborated with partners from Armenia, Czechia, Poland and Slovakia to teach children about colours through sensory activities. The innovation in this project, according to Michaela, is the collaboration among three schools with pupils from both special educational and regular kindergartens. The children assigned each other tasks, worked collaboratively on assignments and created products together. The sensory activities with colours allowed pupils to perceive colours from a different perspective, and they participated in a range of activities related to colours. such as searching for orange-coloured leaves in the schoolyard to create images, making orange-coloured slime, programming a Bee-Bot to follow a yellow path, creating



a green sensory bag and a blue sensory bottle, painting with salt on an indigo surface and making purple scented pouches with lavender.

(33)

Experiential learning has been considered an asset because children gain new knowledge based on their own experience. 'We engaged with children in various sensory activities, where they acquired skills and knowledge based on sensory perception and sensory integration. And the STEAM approach, which connects science with arts and a multidisciplinary approach, allows each child to excel at what he/she is good at, and every child gets to experience the feeling of success', Michaela highlighted.

Michaela believes that technology plays a crucial role in supporting innovative practices in education. In her classroom, she incorporates a range of technological tools, such as interactive whiteboards, smartphones with pedagogical apps and Bee-Bots. These tools enable her pupils to engage in interactive tasks that involve QR codes and augmented reality, fostering their motivation to learn while developing competences such as computational thinking, problem-solving, creativity and teamwork. Michaela noted that these competences are critical for her pupils' future lives.

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

Michaela is working in an eTwinning School that places a strong emphasis on technology, providing well-equipped classrooms and essential tools to motivate pupils. The school actively promotes eTwinning activities and projects. showcasing them in meetings and exhibitions, and opening up to the local community after earning the eTwinning School Label. Parents play an important role in classroom activities, eagerly participating in projects such as 'PETS', where they built birdhouses with their children, and 'STEAM for Kids', where they made rubber-bandpowered cars and entered them in the Scientix STEM Discovery Campaign. In addition, in the 'A Rhythm Every Day' project, pupils made musical instruments from scrap material and used them for rhythm and singing, and in the 'My Neighbourhood, Your Neighbourhood, Neighbourhoods of the World' project, pupils drew their favourite dishes and later prepared them with their parents. The school fosters strong communication with parents, keeping them informed about their children's projects.

The eTwinning projects that the pupils participated in served as

a source of inspiration for the teachers and pupils alike. In fact, some of the innovative activities that were used in the projects have been adopted in school-wide practices, demonstrating the impact that these projects can have on the entire school community.

One significant benefit of eTwinning projects, according to Michaela, is that they promote collaboration and inclusion among pupils with different abilities, including those with autism spectrum disorder (ASD). The participation of pupils with ASD in these projects has helped to break down barriers and foster greater collaboration between these pupils and their peers. Although these pupils may attend special needs classrooms, they are able to participate fully in all projects and events, which promotes a sense of belonging and inclusion.

Moreover, teachers in her school have the opportunity to learn about different tools and pedagogical methods. This learning often occurs



through on-site training that is offered by more experienced colleagues. By sharing their expertise and experiences, teachers can learn from one another and implement new pedagogical activities in their own classrooms, benefiting all pupils.

Michaela concluded, 'Innovation can easily occur, as long as the teacher is willing to dare, is open-minded and enjoys what they are doing in the class with their pupils. The support of school leadership is also essential for creating a culture of innovation.'

3.3. OS Petra Preradovica, Zadar, Croatia

Anita Šimac is a maths teacher with a decade of experience at the oldest school in Zadar, located by the sea on the ancient peninsula. The primary school has around 600 pupils, including special education needs classes, and is involved in various Erasmus+ projects. Anita is a teacher mentor, responsible for guiding maths teachers in her city, and a Scientix ambassador. She switched to teaching after working in the UK oil industry and finding her passion for education. The school collaborates with Zadar university. is a STEM School Label holder and is an examination centre for future Croatian-language teachers.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

'As we strive to educate the youth of today the struggle of motivating them, teaching skills and preparing them for the future has never been more challenging. Expanding their knowledge, deepening understanding and increasing academic output are still important factors, however there are many more to consider. The importance of social skills, raising their level of empathy, enabling them to develop a variety of soft skills, all of these are imperative', Anita reported.

In her classroom, she endeavours to introduce innovative teaching practices with each new generation of pupils that she teaches. When asked to clarify what innovation is, she said. 'Innovation is a single term that comprises so many factors. It is definitely the ability to look at a problem and find a solution that is creative and unique. It is also looking at a problem both critically and with open eyes, minds and hearts. Each person is unique: hence each solution can be one of a kind. The goal is to convince every pupil that they have the capability of learning and their opinion matters.'

(35)

Anita considers personalised learning and inquiry-based learning as important teaching strategies, but she mainly uses project-based learning as she considers it the most effective. 'The pupils are the agents of change as they navigate their own learning journey. By giving them a real-life situation or problem, it is their goal to develop a solution. This solution has to be based on critical thinking, collaboration, communication and applying new knowledge to the knowledge they already have. This scaffolding of knowledge and skills ensures that they are continuously building upon a foundation. A foundation that is strong and will help them realise the importance and significance of learning. My role as a teacher is to guide them, mentor them and help them take ownership of their future.'

Active learning is also encouraged in her classroom, and all the innovation she strives to pursue helps her lead by example. When her pupils see her learning, creating and supporting them, they have the courage to be innovative themselves, 'For example, we did a project using TikTok and Instagram, so I got them to teach me certain things and they felt very empowered then. I think there was a lot of mutual respect in that mutual learning that we undertook together. They can see they can relate to you and that teachers can also make mistakes. So. I often sav when I am explaining something, you have to stop me if I have made a mistake somewhere. It is not the worst thing that can happen to you. But the point is that you learn from your mistakes', Anita explained.

36

A great example of project-based learning is the '<u>eTwinners as Pros</u>' project with partners from Greece, Spain and Croatia. The pupils were involved in many innovative handson activities such as researching various professions and studying



relevant material, collaborating with international partners in online meetings, working together to explore different professions and the tasks they involve, taking information from text and media and displaying it in technical (3D designing and printing), digital (PowerPoint, poster) and artistic (collages, dramatisation) creations decided by the pupils themselves.

The pupils were given freedom over the project topics and type of activities, and they became tutors themselves, working on the learning material to use in transnational classes. The theme of media literacy ran throughout the project, focusing on digital citizenship and disinformation. Media literacy education reached its peak when the nationally reached learning outcomes were taught in international peer teaching sessions. Pupils chose topics, researched the themes of fake news and disinformation, and planned the peer teaching themselves. This gave them a sense of self-worth, great pride and responsibility. The teachers were always on hand to mentor, support and advise, but the pupils were the main drivers.

In the 2020 project 'Stem4Change'. the topic of climate change was the focus. Throughout this project. partners from Greece, Croatia, Poland and Romania wanted to educate their pupils on climate change but also encourage them to concentrate on problem-solving. By structuring resources into four modules of study material. the project provided the necessary learning context for the pupils to explore environmental issues, meet experts online and on-site. share and discuss resources, engage in problem-solving and assimilate knowledge through hands-on activities. The project prompted pupils to reflect on climate change and understand its implications, develop a deeper understanding of environmental issues. acquire the necessary problem-solving skills to make informed decisions and develop their research. communication and collaboration skills so that they could share knowledge.

Anita confirmed that by introducing innovative practices in her classroom with eTwinning projects, pupils as young as 10 are feeling confident enough to come up with ideas. Different topics bring different benefits for the pupils. The most recent projects she is involved in all have activities related to mindfulness. The benefits to pupils include an increase in focus, motivation, classroom participation, empathy, conflict resolution and even improved academic performance. She said, 'The skill of paying full attention to the "here and now" is essential to wellbeing.'

However, implementing change is always a challenge, and in the case of Anita one of the biggest ones is helping pupils with dyscalculia. dyslexia. dyspraxia. attention difficulties, dysgraphia, visual processing difficulties and difficulties in understanding the mathematical concepts that she is teaching. The goal is to engage pupils in a way that helps them understand and connect the curriculum with life outside the classroom. There is always a struggle to bring together the notion of understanding a concept and the joy of learning.

(37)

Digital tools can provide learners with the opportunity to be creative and develop all the 21st-century skills. It is possible to turn classrooms into engaging spaces that connect to the world beyond the four walls of the classroom.



(39)

However, the most important question, according to Anita is, 'What added value to the learning environment can digital tools bring?' In this context, she said, 'We need to focus not on technology as an innovative practice, but the additional value that technology has in supporting learning. Effective digital tools are those that provide learners with the opportunity to approach challenges from different perspectives, and to develop their own creative solutions. Technology in education can make learning more accessible and flexible. It is not enough to motivate and stimulate pupils, there always must be a tangible benefit.'

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

38

Strategies that enable pupils to achieve their academic goals are important; however, one of the goals in Anita's school is to encourage each and every pupil to become a responsible member of the local community. She commented. 'Although it is hard to measure our success in achieving this, I believe that the increasing number of extracurricular activities and eTwinning projects taking place in our school are a contributing factor.' These activities include climate change projects, STEM events with participants and presenters from all over the country. volunteering and cooperation with various stakeholders (from parents. the local university, institutions and other schools), science evenings, literature and musical events. The

school also participates in many experimental programmes and pilot projects, at the national and the international levels. These are all factors that contribute to the growing wealth of experiential knowledge that enables the entire community to learn and grow.

The process of change in her school began gradually. It started with embracing the fact that change is unavoidable. The teachers in the school had to learn to accept the inevitability of a future that is fast changing. This in turn meant that they had to prepare themselves for this challenge. As Anita pointed out, 'Change can be a positive experience, and this was our mindset. Working together. supporting each other, and adapting as a team.' Supported by the school management and the positive mindset of the staff. the school had a solid foundation, which served as the driving force behind their decision to apply for the eTwinning School Label. 'The label gives you a kind of impetus to continue to improve. If we had five to six teachers involved in eTwinning. the goal would be to double it to coordinate more projects rather than being only partners. The label is something we are really proud of', she explained.

Many of the activities in their eTwinning projects, such as peer-teaching media literacy, have been adopted as schoolwide practices. Anita explained, 'Although safer internet and media literacy teaching was always an important aspect of our school curriculum, this has expanded thanks to eTwinning. With media literacy workshops, quest speakers. peer teaching and collaboration with the local community, the idea is to continuously educate pupils and staff.' And she continued. 'The activities undertaken in the many eTwinning projects we participated in have helped our school grow and develop. The doors to our classrooms have been opened far beyond the confines of our school walls. The practices of international collaboration, team-building and civic education continue to develop. It is now perfectly normal to walk into a mathematics class and participate in an international meeting.'

The importance of engaging parents as partners of pupils' learning is part of the openness of the school. 'Without the support of parents and other stakeholders, the process of introducing innovation in the classroom would be very difficult to achieve', Anita said. But also, the support and trust from the school leadership is crucial. 'Those involved in school leadership need to allocate time, resources and energy to support teachers in trying new approaches. To achieve positive



outcomes and cooperation within the school, collaborative leadership is essential. With the support and trust of the school leadership. relationships within the school community are strengthened. This in turn leads to the building of a solid collective capacity and respectful environment. Through collaborative eTwinning practices, schools and communities can learn together. improve together and expand curriculum activities. Innovation in eTwinning projects leads to experiential learning experiences which directly affect pupils' learning', Anita concluded.

3.4. Karlbergs Skola, Stockholm, Sweden

Nataša Kolarević is a special education teacher and assistant principal who worked at Karlbergs Skola, located in the centre of Stockholm. for several years. The school had approximately 330-400 pupils and was under the authority of the Stockholm municipality. During the interview. Nataša mentioned that although the school merged with another school, all the information she provided pertains solelv to Karlbergs Skola. Nataša became a member of eTwinning 13 years ago, when she was working as a primary school teacher in another school. She first learned about eTwinning in 2010 while teaching at an upper-secondary school. Initially, she was unaware of the benefits of applying for a National Quality Label but enjoyed organising projects. After attending

one of the European annual conferences, she gained a better understanding of eTwinning, began applying for quality labels and became an eTwinning ambassador.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

Nataša believes that being innovative means thinking about what knowledge your pupils need to acquire and finding ways to apply it without relying on traditional teaching methods, such as books, worksheets and reading textbooks. Innovation involves thinking outside the box and finding new ways to engage pupils. She considers multimodal learning as an innovative method because it offers pupils, particularly those who are language learners, refugees or migrants, an opportunity to express themselves and demonstrate their learning skills in ways that do not rely solely on writing. As she put it, traditional testing methods expect children to write their answers, but using multimodal tools offers other ways to demonstrate understanding. Pupils can use digital tools to create multimodal learning environments that motivate them to learn across all subjects. Even if they do not speak the language fluently, they can learn and be engaged by combining their senses (visual. auditory. kinaesthetic).

As a teacher and school leader, Nataša finds eTwinning to be a safe space that perfectly suits her needs. In Sweden, where e-safety is a major concern in schools, eTwinning is considered to provide a safe



environment for involving pupils in international collaboration with other pupils, teachers and schools. According to Nataša, 'Pupils are more motivated to make a film if they know that their peers from Portugal or Spain will watch it.' She has also observed an increase in academic progress among her pupils, and the completion level of the activities that she introduces is higher.

One of her most successful eTwinning projects was called 'Christmas Connections through Art', which involved partners from 11 countries. The project gave 6 to 7-year-olds the opportunity to create art inspired by artists from partner countries. Each class introduced an artist, and all classes designed Christmas cards based on that artists' work. Pupils had the opportunity to work on the project during their music lessons and after-school activities. The project not only helped pupils improve their artistic skills but also sparked their curiosity in other languages, enhancing motivation among all pupils regardless of whether they were learning Swedish as a second language or had special needs.

Nataša likes to use different digital tools in her projects and thinks that eTwinning should offer more tools to support their work. She believes that searching for new digital tools that can support the pedagogical objectives of her projects is an innovative practice. Sometimes. she even uses eTwinning projects to introduce her pupils to certain digital tools such as iMovie/Clips and OR codes. She said. 'Before starting a project, we choose digital tools that align with our goals and integrate them into our plan. Staff members have the chance to test these tools in workshops held durina school meetinas, ensurina everyone is prepared to use them effectively.'

In the 'Boat game' project, Nataša and her colleagues collaborated with partners from Finland and Iceland. The project was a STEM



challenge: to create a boat that can sail 300–350 metres. Although the pupils from Sweden were much younger than their partners, they were eager to create boats from sustainable materials and test them in the nearby lake. The pupils worked hard to select the material, experiment with gravity, run tests to ensure their boat would not sink and organise a race. In an online meeting, with Nataša's help, they explained to their peers how they implemented all the steps to construct their boats. Nataša believes that collaborating with older pupils can be really beneficial for vounger ones.

Nataša highlighted that eTwinning projects have enabled pupils at Karlbergs Skola to collaborate with peers from different countries, leading to the realisation that they have shared interests and similarities despite cultural differences. She emphasised the importance of international projects in combating racism, bias and xenophobia. Additionally, these projects have been instrumental in developing crucial skills and competences in her pupils such as creativity, foreign language proficiency, digital literacy and collaboration.

(41)

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

Nataša shared her experience of how her school approached implementing eTwinning projects. Unlike many other schools, where a single teacher starts participating in eTwinning and then gradually involves more colleagues, Nataša's school took a top-down approach. The head teacher was keen on internationalising the school further. Around 7 years ago, she said to Nataša. 'I want to make some change. I want to place this school on the world map and not be just a small dot in our country.' And, therefore, she organised a conference / training for the staff to familiarise themselves with the eTwinning platform tools. The teachers were given an opportunity to learn from good practices and were expected to run a project themselves with the guidance and support of more experienced colleagues and Nataša as eTwinning ambassador.

Nataša pointed out, 'You need to tell beginners to keep their work simple, this is the magic word to help them embark on a new journey.' Many teachers are hesitant to adopt new digital tools or practices. They may also worry about losing their teaching power as pupils become more proficient with digital tools. She highlighted, 'It is difficult to get out of your comfort zone, to change something you were using over the last 20 years, to understand the benefits of this change. Change takes time.'

In Nataša's school, parents are informed about their children's classroom activities, but are not directly involved in eTwinning projects. According to Nataša, schools in Sweden aim to avoid comparisons between pupils to prevent any sense of shame or inadequacy that some children may feel when others have more resources or advantages. Nataša believes that it is important for parents to be aware of their children's activities and to support their learning whenever possible. By promoting transparency and communication between teachers, pupils and parents, schools can help to create a positive and supportive learning environment for all pupils.

In the school, many pupils participate in the after-school activities that are implemented by the non-teaching staff of the school. The staff is also involved in the eTwinning projects, and this gives pupils the opportunity to continue the tasks related to their projects after the lessons. According to Nataša, this process creates a seamless connection between regular classes and afterschool activities. To empower the non-teaching staff to participate in project work, the school has provided them with the opportunity



to be trained in Erasmus+ mobility courses.

Nataša explained that all teachers who participate in eTwinning projects have become more extroverted and open-minded. finding it easier to experiment with new teaching methods instead of relying solely on traditional ones. At first, some teachers were hesitant to deviate from the curriculum. fearing it would negatively impact their pupils' education. However, as they began incorporating project activities into their lessons, they quickly realised the benefits of combining the two. Not only did it make learning more engaging and fun for their pupils, it also helped to reinforce key concepts and skills in a practical and hands-on way. As a result, the teachers became more confident in their ability to create meaningful and effective lesson plans that incorporated both the curriculum and project work. In this regard, she said, 'International projects have become a key part of our school's development plan, with different indicators set each year, such as the number of projects completed and the number of National Quality labels earned. Our pupils also play an important role in the internationalisation of our school, acting as ambassadors and asking their teachers to participate in eTwinning and Erasmus+ projects.' She further commented that. 'It is essential to understand that a school must constantly evolve and adapt to society. Life skills and competence development are more important than ever, and

having a supportive school leader is the greatest asset a school can have.'

3.5. Colegiul Național Petru Rareș, Beclean, Romania

Emese Cîmpean is a Romanianlanguage teacher and has served as the vice principal of her school for the past 9 years. Her school, located in the north-western region of Romania, hosts 919 pupils and has been an eTwinning School since 2018. The school is situated in a small town and most of the pupils come from rural areas. They either commute to school every day by bus or reside in the boarding school. Emese has also been an eTwinning Ambassador for several years and participates in Erasmus+ projects.

(43)

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

Emese emphasised that projectbased learning has been an integral and life-changing aspect of her teaching journey since 2009, when she joined eTwinning. She also placed great importance on using appropriate apps and Web 2.0 tools to enhance pupils' learning and develop their life skills. During the pandemic, Emese utilised the eTwinning platform to conduct her regular classes with her pupils, allowing them to remain connected and continue working on a platform they were already familiar with.

Emese involves her pupils in planning each project and encourages them to take an active role in deciding on the different activities they will need to implement. In one project, her pupils created their own lesson plans, and they became the teachers of other pupils. This provided a unique opportunity for high school pupils to view learning in a different way and become more involved in the class activities.

As part of the project titled 'The Green Behaviour Code', Emese's pupils worked with partners from Italy, Spain and Tunisia during 2020/2021. For some activities, the pupils used Scratch, an ICT tool that Emese was not familiar with. However, some pupils had already mastered the tool and became the experts who provided support and ran the activities. Emese trusted her pupils and allowed them to take the lead, which empowered them, and they took ownership of the learning process.

Emese highlighted an important aspect of teaching and learning: it is okay for teachers to acknowledge that they do not know everything. In fact, by admitting their own limitations, teachers can create an environment where pupils feel more responsible and empowered to take



the lead in their own learning. This trust in pupils' abilities can lead to increased engagement among even the shyest pupils. Emese has observed over the years that even shy pupils who do not actively participate in class become more engaged, work in teams and make friends through their involvement in eTwinning projects. According to Emese, teachers should not impose the topic of a project on their pupils. but rather involve them in the planning process. This approach allows pupils to take an active part in their learning and fosters a sense of responsibility for their own SUCCESS

In the 'Eco-Herit@ge Matters' project, which was implemented with partners from Greece, Croatia. Italy and Portugal from 2019 to 2021, many activities were organised as part of the eco clubs created in the pupils' extracurricular programme. Due to the pandemic. all on-site activities were transformed into an online format. The project focused on ecology and culture, and many of the activities led to whole-school involvement, as Emese described later. In 2020/2021, Emese and her pupils participated in the '#DigitalEU – we'll do!' project alongside German partners, focusing on fake news and digital literacy. Through collaboration in mixed teams, the pupils not only gained an understanding of the dangers of fake news but also utilised their knowledge to create a campaign promoting digital literacy. As Emese explained, participating



in eTwinning projects helps pupils develop important competences and skills that will serve them well in the future. Former pupils often return to report on how their participation in eTwinning taught them crucial skills such as collaboration, teamwork, creativity and critical thinking, among other skills.

Emese provided an example. saying, 'We have been using Pixton as part of the eTwinning projects, particularly in the #DigitalEU – we'll do! project. We continued using it even after the project ended and I noticed that pupils were more engaged. They enjoyed preparing homework and classwork and were more productive and creative while working on Pixton. It was also easier for me to help and guide them because all the cartoons they created remained part of the Pixton class, and I could correct their grammar. As part of the Eco-Herit@ ge Matters (2.0) project, we created a collaborative movie where pupils became screenwriters, graphic designers, translators, directors, editors, and more. They learnt how to create a short movie from scratch and even how to distribute

it by participating in national and international competitions or project fairs. Furthermore, as we focused on nature and ecology, pupils learned how to investigate, document, and create eco-guides. These tasks required collaboration and research.'

Emese believes that the curriculum and textbooks are outdated and that teachers must use their creativity to make lessons more engaging. While pupils are required to take exams at the end of the vear, teachers can still follow the curriculum while incorporating project-based learning. Although some parents may believe that their children are missing out on traditional learning, they play an important role in their child's project progress and are invited to participate in the implementation process of their eTwinning projects. For instance, pupils may interview their parents or participate in a iob-shadowing experience for a day to learn about different professions, such as working as a police officer or librarian

(45)

Despite the benefits, Emese recognised that there are challenges to overcome, with financial constraints being the most pressing. She explained that acquiring the necessary technological equipment for the school is a significant obstacle. Nevertheless, she believes that tools are only a means to an end and that innovative practices that promote learning and develop competences are what really matter.

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

Emese has highlighted that in Romania, teachers typically work independently without collaborating with each other. However, participating in eTwinning projects has changed the school culture, allowing teachers and pupils to work effectively as a team. Emese underlined that this collaborative approach is highly beneficial for everyone involved.

Emese emphasised the importance of support from the head teacher in driving successful European collaboration and adopting eTwinning at school. To achieve this, she explained that the management team must understand the significance of the collaboration and the benefits it can bring to the school community. Emese took the initiative to invite the head teacher to join her in video conferences with partners and attend a national eTwinning conference, where he was able to interact with other head teachers and teachers who had already integrated eTwinning into their teaching practices and learn about the advantages it offers.

Emese also highlighted the importance of communication and collaboration among colleagues in achieving success through project work. She believes that discussing the activities and sharing the outcomes with colleagues and the management team can increase the impact of the work done. She shared an example of five colleagues who worked together and received a national eTwinning prize, demonstrating how collaboration can bring more benefits and wider visibility, which in turn is rewarding for all the work done.

The school has developed a school plan running until 2027. in which they aim to increase the digital competences of both pupils and teachers. To help them reflect on how they can utilise digital technologies to support learning, they utilised SELFIE for schools. Additionally, they are striving to create an environmentally sustainable school community that encourages good practices, with the potential to inspire a shift in perspectives and habits regarding sustainability and its effect on our future. This decision was made following their participation in the 'Eco-Herit@ge Matters' eTwinning project.

The activities initiated by the eco club have now become a part of the school's standard practices. In fact, after completing the project, the school registered for the Eco-Schools programme, and now conducts monthly extracurricular activities. They have also embarked on a new eTwinning project (Eco-Herit@ge Matters 2.0) and incorporated green objectives into their school plan for the 2022– 2027 period.

The school's 'European Parliament Ambassador School (EPAS) team has taken on the topic of media literacy and disinformation, recognising its significant impact



and the need to constantly address it to raise awareness and foster responsible online behaviour among pupils. Emese mentioned that her school has adopted several practices following their participation in eTwinning. These practices include a heightened awareness of pupils' online image, not just in terms of signed agreements but also regarding responsible messaging and online conduct, and more responsible use of the internet and campaigns for younger pupils.

'We are particularly proud that collaborative groups are expanding within our school, with more teachers joining eTwinning and taking on leadership roles to guide and mentor pupils. As a team, we are also collaborating more within our classes, and all of this is a direct result of the fantastic eTwinning spirit that we have experienced throughout our projects', she added. Despite the lack of technological resources, the school has become more outward-looking and is now collaborating with professionals and other organisations. As the only eTwinning School in the area, it is seen as a model school and they share their activities with other schools in the region. For several vears now, the school has hosted an annual symposium, where they organise workshops for teachers from across the area. In recent vears, the school's symposium has gained significant publicity, and an increasing number of teachers from all over the country participate and share their successful eTwinning practices.

In Romania, the Ministry of Education offers recognition for schools that excel in quality activities on a European level. an initiative known under the title of 'European School'. Emese's school was awarded this title due to their successful eTwinning projects and activities over the past few years. The award consisted of a sum of money that was used to purchase a fixed projector that can be used by all classes. This recognition served as confirmation for the school management, teachers and pupils that the project was worth the time and effort they devoted to it.

(47)

At her school, everyone feels like they are part of a community that is continually expanding and evolving. They foster a culture of collaboration, working together as a cohesive team. Emese's vision is 'a school that operates like eTwinning, which is more than just a platform. eTwinning represents a pedagogical methodology, a concept and most importantly, an active and supportive community.'

3.6. Collège et Lycée Pierre de Coubertin, Font Romeu, France

Anca-Aura Couasnon has been teaching English and French as a foreign language for the past 13 years at Collège et Lycée Pierre de Coubertin. She became a member of eTwinning after attending an on-site training course, where she met partners from other countries and decided to participate in her first project. The school where she teaches is a lower-secondary institution with a vocational training section. It is a sports school for high-performing athletes, but it also welcomes regular pupils from the local area. The school is situated in a rural area in the south of France at an altitude of 1 800 metres in the eastern Pyrenees and is located just 15 kilometres from the Spanish border.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

Anca highlighted that innovation does not always require revolutionary actions but can stem from small steps taken to pique learners' curiosity and interest. She emphasised the importance of experimenting with different approaches to determine what is effective and efficient. After participating in an on-site eTwinning training course, she returned to her school and shared her new-found knowledge with her colleagues. This act of sharing was innovative as it introduced a new initiative to her school and sparked interest among her colleagues in collaborating.

Anca has been involved in multiple projects and endeavours to combine eTwinning with Erasmus+. with the ultimate aim of arranging face-toface activities and meetings with her partners. However, she pointed out that introducing eTwinning to partners, helping them utilise various tools and organising collaborative activities can be challenging. Anca stressed that many teachers are not used to genuine collaboration, and it takes time to demonstrate the added value and initiate collaborative activities, instead of parallel activities.

During the 2020/2021 school year, Anca described how her school had an Erasmus+ partnership with a school located in Sicily, Italy. Due to the pandemic, travel was not possible, and they instead opted to initiate an eTwinning project titled 'Motivation'. The project targeted the school's most vulnerable pupils, as the theme of the Frasmus project was early-school leaving and lack of motivation among pupils. Anca and her colleague Anne, an English teacher, collaborated to select two classes of 14 to 15-yearold pupils who lacked motivation and interest in schoolwork. The pupils also had low self-esteem. particularly in English. Therefore, Anca and Anne focused their efforts on challenging the pupils' selfperception, encouraging them to

work on their emotions and learn how to manage negative feelings, such as discouragement, shame and fear. The project was a success, and their participation led them to join the 'European Parliament Ambassador Schools' programme, which was highly appreciated by the school management team.

According to Anca, participating in eTwinning projects can have a positive impact on pupils' selfconfidence, open-mindedness and problem-solving abilities. Additionally, these projects can make learning more eniovable. leading to deeper engagement. However, it requires significant effort from the teacher at the outset to convince pupils to participate in these projects. Anca pointed out that some pupils excel in English or digital tools, while others struggle. As a result, she needs to be present during activities to assist those who require extra support. She emphasised that working in teams is more efficient as pupils learn to collaborate and support one another



in achieving a common goal. She pointed out, 'Ultimately, seeing the smiles on their faces when they successfully complete a task is the most rewarding aspect of being a teacher.'

Anca's pupils are encouraged to contribute their own ideas to the projects they work on, and she collaborates with them to find the best tools to achieve their goals. In some cases, the pupils become the teachers and show Anca how to use different tools, such as videoediting software. One example of their successful collaboration is the eTwinning project 'European Teen Scene' (2020–2021), in which pupils from several countries. including Denmark. Germany. Spain, France, Italy and Finland, worked in multinational teams to create articles about their interests and hobbies. The pupils produced the unique idea of creating special awards called the Teen Scene Awards. which had different categories such as sports, entertainment, science and activism. Through their research, pupils broadened their horizons and cultivated their interests in various fields

(49)

While preparing for the vote, the debates in class contributed to improving their oral skills, including justifying, convincing and expressing personal opinions. The awards ceremony for obtaining the National and European Quality Label was held in the school and was a special moment for the pupils, as it enhanced their commitment to international projects and



collaboration, Anca explained. In the Erasmus+ eTwinning project 'You are the world, choose to make a difference', pupils were ambassadors, and it was their responsibility to organise events and engage their peers in the project activities on ecology and inclusion after each mobility. Anca believes that pupils should be empowered and encouraged to take on leadership roles, which can only happen if teachers trust them and provide them with opportunities to do so.

As an eTwinning ambassador, Anca has also evaluated projects for the National Ouality Label over the past few years. Through her experience, she has come to realise that the most important aspect of running a project is how much pupils are involved in their learning and how teachers can achieve their pedagogical objectives in the most effective way possible. Although she initially focused heavily on digital tools, Anca has discovered through working on several projects that the tools themselves are not as important as helping pupils learn actively. Tools may change from year to year, but the focus should always be on fostering an engaged

and active learning environment for pupils.

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

After Anca introduced eTwinning to her school and after witnessing the benefits of eTwinning and Erasmus+, such as increased visibility for the school, the management team became progressively involved and supportive of the initiative. Anca believes that innovation is contagious and begins with a spark that can ignite new ideas and open new perspectives. Her school started with one eTwinning project and progressed to an Erasmus+ project for teachers, followed by an Erasmus+ project for pupils.

Anca stressed the importance of professional development. particularly for schools located in rural or remote areas, as it provides an opportunity to connect with others and create a European professional network. An Erasmus+ project for teachers titled 'From Creative Teaching to Creative Thinking' ran from 2020 to 2022. After the training course, teachers adapted the most interesting and innovative activities in their everyday teaching. They organised dissemination sessions and teachers from various fields participated. benefiting from the opportunity to learn from one another.

Anca's school is quite active and open to the community, working with authors, artists and local authorities. French-language teachers invite actors and stage directors to teach pupils how to prepare short videos for their projects. In their Erasmus+ project, Anca invited representatives from the city hall and the tourism office to talk about the current challenges in their area. Anca stated that her school had a pre-existing practice of opening up to the community; however, after getting involved with eTwinning, this practice has become more structured and formalised as it is now integrated into their project activities.

In addition, parents are regularly informed about their children's project work and are generally pleased with the skills and competences their children acquire. However, some have concerns about their child's access to necessary digital equipment or are sceptical about online collaboration with other teachers and pupils in different countries. In these cases. Anca reassures them about the safe environment of eTwinning. While parents have not yet actively participated in any projects, they are enthusiastic about taking an



active role in their current Erasmus+ eTwinning project.

Anca mentioned that in addition to the benefits, they also encounter some challenges. The most significant challenge they face is the amount of time required to implement innovative activities. Some of her colleagues found it time-consuming and were hesitant to continue working on a new project the following year. To address this issue, they have produced a solution by structuring their team and assigning specific roles to each teacher or staff member involved. Additionally, they have learned to rely on motivated pupils who often have great ideas and are skilled in new technologies, helping them overcome some of the challenges they face.

(51)

Anca tries to support her colleagues but believes that having a structured school plan with clear objectives, steps and activities for the coming years could make a difference. Her school has taken the first step by creating a plan, albeit somewhat vague, and there is still room for improvement. In this regard, she said, 'As an eTwinning School, we need to keep improving ... the eTwinning School Mission states we are innovative learning organisations.'

Anca also pointed out that regular quality training and time-saving tips for teachers would be essential to maintain innovative practices. Additionally, she believes that the school needs to receive more visibility for all the work they do on the local and national levels. For instance, having a dedicated page on the 'inspection académique' (regional pedagogical authorities) website that displays all eTwinning Schools and their expertise, which could help raise awareness and recognition of their efforts. Anca emphasised that introducing innovative practices should not be a one-time initiative, but a continuous trend that requires ongoing support and investment.

3.7. İlhami Ertem Anadolu Lisesi, Edirne, Türkiye

Sema Karakuş has been teaching English as a foreign language for the past 24 years. The uppersecondary school where she works is situated on the borders of Bulgaria and Greece, 2 hours away from Istanbul. The school is well equipped and hosts pupils aged 15 to 18 years old.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

According to Sema, introducing more technology in the classroom can create a blended learning environment where pupils experience technology as they would in the real world. Given the rapidly changing nature of today's workplace, it is nearly impossible to predict or keep pace with the rate of change. As such, it is perhaps more important than ever to develop the ability to adapt and evolve. In many industries, innovation is the catalyst for change and there are always opportunities for improvement. Innovation in education can help prepare pupils for a dynamic workplace by providing them with opportunities to develop skills such as creativity, adaptability and resilience. Sema also pointed out that. 'In my own classroom. I have personally experienced a significant transformation in my teaching since adopting eTwinning. Before this. I was not particularly proficient in digital tools. However, after implementing an eTwinning project, both my pupils and I improved our digital skills greatly. This, in turn, motivated my "digital native" pupils even more.'

In 2020, during the pandemic, she collaborated with her pupils on an eTwinning project called 'Let's Play Together'. The topic of this project was gamification and game-based learning, with participants from Bulgaria, Croatia, Italy, Lithuania, Poland, Portugal, Romania and Ukraine. As part of this project, they created two mobile applications for Android devices. The first application, called 'World of Game', was developed with the Kodular.io tool. Upon opening this app. users are directed to the project's website. The second application, 'Let's Play Together', was more complex and was created using App Inventor. This app features lessons, topics and different digital games for each subject. Users can easily download this app to their mobile phones and use it anywhere.

To begin with, Sema mentioned that innovative practices can create a more engaging classroom environment. While some may view technology as a distraction, she believes that it can actually help to encourage active participation in the classroom. Incorporating devices such as computers, tablets or mobile phones can help to transform traditionally dull subjects into interactive and fun activities.

Furthermore, innovative practices can cater to different learning styles, she added, 'Each pupil in my classroom is unique, and it can be challenging to adjust my lesson plans to accommodate all of them. Fortunately, technology in education allows me to modify my lessons and incorporate fun games like board games, card games and outdoor games. In my "Let's Play Together" project. pupils even prepared their own materials and played games during English lessons. This project was so successful that we transferred it



to Erasmus+ and even attended a gamification course in Finland.'

Using technology in the classroom also prepares pupils for the future. she stated. Introducing instructional technology at a young age can help pupils meet future digital demands. Additionally. technology can help to build a stronger relationship between teachers and pupils. Sema explained. 'In my "My Goal" eTwinning project, for instance, pupils created digital CVs and learned how to prepare job applications. They even introduced and presented the professions they aspire to work in in the future. This project has helped pupils become more confident, and in my "Entrepreneurship can Reach Your Goal" project, they used different Web 2.0 tools to research entrepreneurs and presented their findings in a Zoom conference to the class.'

(53)

However, some pupils may struggle with digital skills and find it challenging to complete technology-based activities on their own. Sema explained. This can be due to a lack of prior experience or access to digital devices. Additionally, some pupils may have limited time for extra activities due to other commitments, which can hinder their participation in technology-based projects. When communicating with pupils from other countries, some pupils may feel shy or hesitant to speak. particularly if they are not confident in their foreign language skills. Furthermore, some pupils may struggle to understand the project



requirements or directions due to language barriers or a lack of proficiency in English. In such cases, providing additional support and guidance can be helpful in ensuring that all pupils are able to fully participate and benefit from technology-based learning experiences.

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

Sema emphasised, 'We are proud to be the first eTwinning School in our city. Since initiating eTwinning projects, our school's vision and mission have evolved. We have become more successful and active in social activities and projects, gaining prestige and reputation by transforming some projects into Erasmus+. Our pupils' competence levels have increased, making parents more eager to enrol their children in our school. As a school. we have been awarded medals and gifts from institutions for our innovative applications. Thanks to eTwinning, we won a trip to Belgrade through the Move2Learn initiative. Additionally. I became a runner-up in the National Innovative Material Design Competition for

teachers with my new mobile application, which I proudly introduced and presented to teachers at both the local level and the National UEDFOR Conference (National Transformation in Education Forum) in İzmir.'

Sema shared that it was her head teacher who introduced eTwinning to her 5 years ago and explained to her the added value of projectbased learning. Since then, more teachers have joined, and they started working and collaborating on projects. Many of the activities they did in their projects were introduced in the school. The school website was transformed into a mobile app using their own application, which proved to be very helpful for both pupils and parents. They made the digital game app available to all pupils, including trainee teachers, and it served as an effective tool for them to practise their lessons. The app is easy to use and eniovable, so the pupils really enjoyed it. Additionally, Sema collaborated with her pupils to create the school magazine and bulletin, which were intended for parents and other individuals, using applications such as Canva and Madmaoz.

Every year, on eTwinning Day, an exhibition is prepared in the school, and they join the eTwinning exhibition in the city. The school was selected as they are renowned for their eTwinning projects, and even during the pandemic, their eTwinning classes and teachers became leaders for others. This was possible as they were already familiar with digital tools and had trained their colleagues on their usage. In comparison to others, they were fortunate. Thanks to eTwinning, Sema highlighted that their pupils were able to communicate with their peers abroad using applications such as Zoom, which proved more effective than traditional classroom lessons. As a result, they have become a role model for other teachers and schools.

Every year, exhibitions and kermis events. fairs that usually aim at raising money for a charity, are organised for parents by the school. These events encourage parents to create products for eTwinning projects and have them fill out digital surveys prepared by the school. Sometimes, pupils even interview their parents, relatives and other individuals with different occupations. The school also invites parents to share information about their professions. For instance, in the 'Healthy wealthy' project, the school organised a Zoom webinar where they interviewed a famous football referee and invited a dietician to speak. Furthermore, the school held a webinar with a clinical psychologist to discuss different



types of bullying. Parents were also invited to attend hobby courses in school where they created marvellous masterpieces. They even arranged charity events, and their works were exhibited in the school.

Sema and her school place significant emphasis on technology. She concluded. 'Technology has the potential to be a powerful tool in transforming learning. It can strengthen the relationships between educators and pupils. revolutionise our approaches to collaboration and learning, eliminate equity and accessibility gaps that have persisted for a long time, and tailor learning experiences to meet the needs of all learners. Our schools must serve as incubators for exploration and invention. Educators should work together with their pupils, constantly seeking new knowledge and acquiring new skills. Education leaders should create a vision for crafting learning experiences that offer the right tools and resources for all learners to succeed.'

(55)

3.8. II Liceum Ogólnokształcące im. Króla Jana III Sobieskiego w Kraków, Poland

Justyna Grzegorzyca is an English teacher who works with pupils aged 15 to 19 years old in a school located in Kraków, a large city in Poland. The school has a long history and it will be celebrating its 140th anniversary next school year. It is home to over 1 000 pupils who are highly motivated and who are preparing for their final exams, which will allow them to pursue higher education.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

Justvna described innovation as the following, 'Innovation in my teaching practice involves utilising new technologies, incorporating various teaching styles and interdisciplinary approaches, and continuously reassessing traditional classroom structures and roles. It also involves exploring novel ways of collaborating with my pupils. The goal of innovation in my teaching practice is to develop and implement new teaching approaches that better engage and motivate pupils, aid them in comprehending and processing information, and foster critical thinking and problem-solving skills.'

As Justyna mentioned, at the start of the academic year, she usually dedicates some time to observe her pupils and implements some ice-breaking activities. Following this, she engages in individual conversations with each pupil in her class to discuss possible topics for a project before introducing it to the entire class. This approach provides pupils with the opportunity to express their ideas and interests, thereby creating a lively and productive learning environment.

In 2020, the 'Street around Europe' eTwinning project was implemented with the aim of exploring street art and graffiti in various European cities. Five partner schools from Belgium, France, Poland, Slovakia and Türkiye collaborated to develop creative thinking skills and raise pupils' awareness of the street art in their local communities. The project also emphasised learning new technological tools and promoting collaboration among pupils from different countries. The pupils used digital media tools such as video, audio and animation to create a collaborative story, which encouraged language learning, creativity and digital literacy. A key innovation in this project, according to Justyna, was that language teachers worked collaboratively with science teachers for the first time. demonstrating the positive impact of eTwinning in their teaching. This project was subsequently transformed into an Frasmus+ project on drama education, which involved the entire school.

In 2019, schools from France, Poland and Türkiye collaborated on a project called 'Bookworms & Mól Książkowy & Rats de Bibiothèque' to foster a love of reading and books. They shared knowledge and drew inspiration from each other to create stories, comics and drama based on their identities



and localities. This project inspired Polish pupils to undertake a social project called '100toSTART' to support blind and visually impaired people. They raised money for the world's first mass production of tactile books for visually impaired children. These books were notable for containing spatial and colourful illustrations that helped visually impaired children develop their imagination, creativity and spatial orientation. After collecting funds and printing copies, the high school pupils planned to donate them to 10 centres across Europe that assist people with visual impairments.

In 2020, the 'Digital EU – and YOU?! My media choices - my life balance' eTwinning project addressed issues relating to digital citizenship and the safe and conscious use of the internet. The project focused on analysing teenagers' digital choices such as online hate, cyberbullying, phubbing, netiguette and on the communication manifesto. All activities were well integrated into the national curriculum and promoted the acquisition of disciplinary and interdisciplinary content in an international environment through collaboration with German, Greek, Italian and Spanish pupils. The project was a winner of the 68th International Digital Sustainability Competition for eTwinning in Germany. The project was conducted during the pandemic lockdown, and the participating pupils became mentors of other pupils at their school. emphasising the significance of digital literacy.

By utilising digital tools and platforms to foster collaborative projects. Justvna pointed out that her pupils develop essential skills that prepare them for the 21st-century workplace. These skills include creativity, problemsolving and critical thinking, which in turn help them become more confident and independent learners. Furthermore, teachers can share best practices and learn from each other. leading to the development of innovative teaching methods and approaches. By implementing eTwinning projects in the classroom, pupils have improved cross-cultural understanding and communication. They are more eager to meet their project partners online and collaborate with peers from different countries. For instance, their 'I know my past, I am running for the future' project exemplifies how these collaborations can enhance pupils' cross-cultural understanding and communication skills. Through working together on projects, pupils learn about other cultures, traditions and languages, which encourages the development of empathy and respect for different perspectives. This promotes global citizenship, which is aligned with Justyna's school mission and vision of fostering tolerance and understanding among different cultures.

(57)

However, according to Justyna, introducing and implementing classroom innovations can be challenging for pupils who may resist change and struggle to adapt to new ways of doing things.

(59)



Limited technical knowledge can lead to frustration and lack of progress. Adequate resources, including equipment, materials and funding, are crucial for effective implementation. Generation Z pupils need time and a safe, supportive environment to practise and experiment. Teachers should communicate the benefits of the innovation, such as increased engagement and improved learning outcomes, and provide one-toone assistance. online tutorials or peer support. Careful planning and support are necessary for a positive learning experience.

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

'Having learned about eTwinning and sharing good practices between teachers and pupils, we sought their help and support, we organised eTwinning events in our school, including "Join eTwinning", "How to work on an online project", and "What are the must-know top online tools to start an innovative project?". Local eTwinning ambassadors were invited to present us the possibilities they offer. Teachers learned practical skills and started their first international and national projects. We participated in many online events and learned from other teachers, recognising that being a teacher is a lifelong learning process. The online eTwinning courses met our teachers' expectations.'

They were awarded European Quality Labels for their participation in several online projects, which motivated the school to promote intercultural understanding and cooperation between pupils and teachers from different countries. This helped them overcome cultural differences and misunderstandings. creating a more inclusive and diverse learning environment in school. They applied for a successful Erasmus+ grant, and 20 teachers attended job-shadowing courses and language and methodology training sessions. The teachers gained a better understanding of innovative teaching approaches, and a leadership group was formed to create partnerships and apply for pupils' Erasmus+ funds. They started visiting different schools, working together in international groups, sharing good practices. exchanging ideas and inspiring each other to develop new and creative ways of teaching and learning. The school accessed new learning experiences, built new partnerships

and collaborations, and broadened its horizons.

To create an innovative culture in their school. Justvna pointed out that teachers and pupils have identified several key aspects of mindset that they believe are essential. These include openness to change, a strong sense of curiosity and the ability to think creatively and outside the box. The school also places a strong emphasis on pupil-led learning, encouraging pupils to take ownership of their education and pursue projects that are meaninoful to them. Persistence is also seen as crucial, as pupils are taught to view challenges as opportunities to learn and grow.

Collaboration is another important aspect of the school's culture of innovation, with teachers and pupils alike recognising the power of working together to achieve shared goals. The school also encourages risk-taking, recognising that failure is a natural part of the innovation process and that taking calculated risks is necessary to push boundaries and achieve new levels of success.

The school also seeks to engage the wider community in its efforts to build a culture of innovation, involving parents, local businesses and other community members to create a sense of shared ownership and commitment to the school's success.

Finally, the school embraces technology as a tool to support innovation and creativity, using

a variety of tools such as 3D printing, coding software and online collaboration platforms to help pupils explore and express their ideas in new and exciting ways. By focusing on these essential aspects of a good mindset and working together to build a culture of innovation, the school is helping to prepare its pupils for success in an ever-changing and increasingly competitive world.

According to Justyna, prior to the pandemic, her school did not incorporate eTwinning projects into their practices. However, her colleagues and the head teacher were impressed by the level of involvement and ease with which Justvna's pupils adapted to online activities. They recognised eTwinning as a perfect tool for promoting the use of digital tools in learning, fostering international collaboration and developing intercultural competences. As a result. activities from eTwinning projects were implemented school wide. The school's FMFT (Festiwal Małych Form Teatralnych) festival, for example, had never been promoted online or internationally until they analysed eTwinning practices and integrated them into school-wide activities. The 'Shake the Stage' project was created, which promotes crosscultural learning, digital skills and international collaboration among pupils.

Justyna also emphasised that involving parents and stakeholders is crucial for the success of school innovation. Communication is key



and the school uses newsletters. emails, social media and parentteacher meetings to keep them informed. Workshops and surveys gather feedback, and opportunities for involvement include volunteering as quest speakers or helping with related projects. Advisorv committees composed of parents and stakeholders are created to collaborate and integrate different perspectives into the planning and implementation of innovations. 'It is an opening towards the community. it is actually working together with the community', she explained.

Secondary schools face challenges in introducing and implementing innovations due to the need to adhere to national curriculum standards. the difficulty of engaging high school pupils, and limited time and resources. Innovations must align with existing curricula and be designed to capture pupils' attention and interest. Creative solutions are necessary to overcome these barriers, and schools must prioritise sustaining and scaling innovations to ensure continued positive impact on pupil learning. 'What we do is check the priorities set from the Ministry of Education, we discuss them and try to blend them or even

base our eTwinning project on them. Then we discuss it with our pupils and decide on the activities, making sure they are fun, provide learning and address the school curriculum. With careful planning and support, you ensure a positive learning experience for pupils', Justyna concluded.

3.9. ITCS 'G. Zappa' di Saronno, Saronno, Italy

Liliana Rossetti is a language teacher who specialises in teaching English and German. She has been teaching for over 25 years and is currently based in a technical school in Saronno, in northern Italy. The school's curriculum focuses on accountancy, finance, marketing, international relations and computer networks for business. In addition to her teaching duties, Liliana is also an eTwinning Ambassador.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

In teaching practice, innovation involves introducing new methods to manage day-to-day work with pupils, based on their syllabus, with a focus not only on contentrelated knowledge but primarily on developing 21st-century skills, Liliana stated.

In school education, innovation entails adopting techniques such as peer-to-peer learning, research, and project-based and action-based learning, which require active pupil participation and make the pupils the protagonists of the learning process. Any teaching approach that follows a democratic model based on cooperation, accountability and inclusion is considered innovative. according to Liliana, when compared to traditional methods. Personalisation of learning is also particularly innovative, whereby the pupils have more control over their own learning, making the learning process more engaging and effective. Each pupil has their unique development, needs and learning pace, and personalisation involves designing an individualised learning path to achieve the same objectives as fellow pupils.

During the 2020/2021 school year, the 'Young European Entrepreneurs' eTwinning project involved partner schools from Czechia, Germany, Italy (Saronno and Bari), Portugal, Réunion (France) and Türkive. all of which were vocational or technical high schools. The project focused on simulating business relationships between companies on an international level. The pupils engaged in activities such as analysing and presenting companies, business correspondence, offering and ordering, job offers and applications and designing a product. This



hands-on approach provided the pupils with the opportunity to develop business-related skills and competencies while complementing their theoretical preparation.

In the 2021/2022 school year, a network of schools from Greece. Italy (Saronno and Sassari). Spain and Türkiye collaborated on the 'READ-WRITE-LAB' eTwinning project. The goal was to encourage collaborative reading and writing practices using new technologies. The pupils explored different narrative texts, including the oraphic novel, and participated in collaborative activities in international groups. The project had a positive impact on pupils' reading habits as the graphic novel proved to be a simpler and more engaging literary genre, increasing their motivation to read and write.

(61)

Introducing innovative practices in the classroom can provide numerous benefits, as Liliana pointed out, including enhanced communication and working skills in the target language (English). increased pupil motivation and a stronger sense of community within the classroom. Simulated business scenarios, for example, can provide valuable experience and professional skills that can be applied more effectively during internships. The 'Young European Entrepreneurs' eTwinning project was particularly useful during the pandemic year of 2020/2021, as it provided a substitute for the real work experience that had become impossible.



In the introduction and implementation of innovative practices, challenges can be encountered at various levels. Liliana explained. For both pupils and fellow teachers, innovative practices may require overcoming time and space constraints. Project activities may need more time to complete, and a conducive working environment may be required. such as a computer lab or devices for all pupils, especially during certain project phases. Preparing tools and activities may also take up significant time and energy, which can be perceived as a waste. Collaborative activities require preparation and motivation from all participating pupils; otherwise, the experience may prove unsuccessful.

Challenges can often present opportunities if approached positively, with the goal of developing competences and skills in pupils remaining at the forefront. Liliana referred to the project on young entrepreneurs again, where they had the opportunity to witness the positive impact of the activities carried out. The simulation of an international business contest with several European partners allowed pupils to think beyond the limitations and restrictions that COVID-19 had created, imagining themselves in active roles that they were likely to take up in the near future. As a result, they developed a range of soft and professional skills that proved useful in the following year when they undertook work placements with local companies. The project was carried out with the collaboration of fellow teachers who understood the potential of the activities and their impact on pupil preparation during the pandemic. Liliana kept the school community and leadership informed about the project's progress and shared some of the outcomes.

The idea that innovation in teaching is synonymous with digitalisation is often misleading, explained Liliana. 'True innovation lies in the approach, and the role of the teacher is paramount in this context. A modern teacher is certainly familiar with digital tools that can simplify their work and enhance their presentations. However, the primary function of these tools is to reduce distance, facilitate communication and create opportunities for learning and collaboration with partners across geographical boundaries.'

She further explained, 'It is crucial that we preserve the human element in an increasingly technological world. We cannot allow technology to become a monster; it must remain an ally, infused with humanity. If we allow the human factor to disappear, we will lose everything. Through eTwinning projects, we can combine technology with human interaction by collaborating with individuals who live in different contexts and think differently from us. This enables us to share ideas and collaborate with one another, enriching our learning experiences.'

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

'Our school is highly receptive to a diverse range of proposals for collaboration from local, regional, national and international organisations. Embracing these collaborations and real-world engagement provides invaluable opportunities for pupils to gain practical skills and the preparation needed for their future'. she explained. Innovation should be associated with the use of emerging technologies that enable communication and collaboration on a national and international scale. Every encounter or activity that brings the real world closer to the pupils is innovative as it requires skills and a mindset that traditional education seldom imparts. Moreover, the ability to interact and collaborate towards achieving a shared goal is an essential requirement for tomorrow's society. According to Liliana, this approach helped them get the eTwinning School Label, 'It's still a work in progress, it's not easy. But we collaborate more, and we try to work on interdisciplinary projects. I introduce eTwinning to my colleagues as a teaching method.'

Several activities suggested by eTwinning projects have been extended to parallel classes and



tested by fellow educators at her school. The school has implemented the simulation of business case studies and start-up creation coming from her eTwinning project, engaging fourth-grade pupils from the accountancy high school. She explained, 'I suggested that we join forces with the business administration teacher to work together on this project. We can collaborate on this and create a simulation where the pupils can run their own company. It would be a great opportunity for them to apply the concepts they are learning in the business administration course.'

(63)

Additionally, some of the language and literature teachers have included graphic novels in their teaching plans as reading material for pupils. In the 2021/2022 academic year, a special event was organised based on Art Spiegelman's graphic novel 'MAUS' to commemorate Holocaust Remembrance Day, involving the entire school community. Liliana added, 'To see the advantages of project-based learning, we need cross-curricular projects that meet the needs of different subjects and sectors. This way, teachers can recognise the value of the

projects in their own fields and work together effectively.'

These innovative classroom activities have frequently served as examples for fresh ideas and similar experiences, inspiring other teachers to explore and test different approaches and methodologies with their own classes. Liliana observed. Furthermore, these activities have offered valuable input for fostering synergies and collaborative work among teachers in interdisciplinary and content-and-languageintegrated-learning modules. particularly in the curriculum of civics, which was implemented in the Italian school system with a cross-curricular approach 3 years aqo.

Parents are also informed about the eTwinning activities from the outset, where they are requested to give permission and are presented with the topic and guidelines of the project. The school website shares news and links to major project products. Parent representatives are regularly updated in periodic meetings, but as Liliana reported, it was difficult to count on their active participation as her pupils are quite old. Additionally, other stakeholders, associations, local bodies or individuals connected to the school through their contributions are also updated on a regular basis. They are informed by email by the project's reference teacher to keep them aware of pupils' progress. The local community is also kept informed through press releases and articles in local newspapers, social media and websites, particularly on

occasions when projects come to an end.

Innovation is not merely a temporary change or variation, but rather a significant shift towards new dimensions of teaching and educating pupils. Liliana explained. To become good practices, these innovations must be well planned, properly supported and regularly evaluated by a substantial number of teachers. However, she pointed out that often the primary concern is the syllabus, the number of tests to be submitted, the grades and measurable standards to be applied to pupils' performance in different subjects. As a result, content-based learning and skill proficiency remain the top priority in teaching, leading to a lack of an inclusive learning environment where every pupil can find their space to make personal progress and grow.

Effective school management plays a vital role as an ally in fostering the development and gradual implementation of innovative teaching practices. It is essential in motivating new teachers, pupils and their families to trust these new teaching methods and view them as modern and engaging tools for contemporary learning, Liliana emphasised. As she put it. 'To support the implementation of innovative teaching practices, schools may need to provide dedicated and re-planned spaces, both physical and digital technology resources and revised teaching time units. These resources can facilitate the integration of innovative teaching methods and ensure that

they are successfully implemented, enhancing pupils' engagement, and promoting effective learning outcomes.'

3.10. INS Ronda, Lleida, Spain

Maria Isabel Vila Figueroa is a vocational teacher who has been teaching vocational training subjects in social care for more than 20 years. She is currently employed as a pedagogical advisor in the Spanish Ministry of Education. During her interview, she described her work at INS Ronda Vocational School, where she has been teaching mainly adult pupils for the past few years. Her pupils' age range from 12 to 40 years old, and some of them returned to school to pursue different specialisations or to obtain gualifications for new iob opportunities. The pupils either commute to the school daily or share flats and stay in the town where the school is located.

ETWINNING PROJECTS: IGNITING INNOVATION IN THE CLASSROOM

It is essential to teach and demonstrate hard skills or technical skills to pupils in their chosen specialisations. This is particularly important when they plan to do internships at NGOs or other companies or when they apply for jobs. Pupils must understand the important skills they need to practice in companies, and it is also essential to develop their soft skills or transversal skills. Collaborative skills, responsibility, and the ability to work with others are critical skills that pupils must possess when they enter the workforce', Maria Isabel stated.

Based on her experience, she has observed that the curriculum may not be responsive enough to cover both hard and soft skills. But through eTwinning, she has found an opportunity to work on developing both types of skills, which are increasingly important in the labour market and for companies. In addition to teaching these skills, she also evaluated them through rubrics, comparing pupils' abilities and responsibilities in completing tasks. This allowed for a more comprehensive approach to learning.

(65)

Maria Isabel mentioned that as she had mainly adult pupils, it was quite hard to find partners with pupils of the same age. The courses they offer in her vocational school are offered at universities in other countries. She is teaching her pupils how to assist people who are in need. She explained, 'They have to be able to communicate effectively. to work collaboratively and to have a good understanding of social issues and how to address them. It's not just about technical skills. but also about interpersonal skills and empathy towards others. It's a challenging but rewarding job that requires a lot of dedication and commitment.'

In 2019, Maria Isabel led an eTwinning project called 'R4H. Restaurant4Homeless' with partners from Greece, Spain and Italy. The pupils involved created a restaurant that aimed to offer more than iust a meal – it provided training and support to people affected by homelessness or at risk of homelessness. The project's primary focus was breaking the cycle of homelessness, unemployment and poverty by helping people into fulfilling and meaningful employment. Additionally, pupils analysed how climate change is exacerbating the homeless situation and contributing to the surge in Europe's homeless population. They collaborated with non-governmental organisations (NGOs), searched for funding, worked with the local community and successfully built their restaurant business. Maria Isabel said, 'eTwinning has enabled the collaboration of NGOs, making it possible to incorporate practical activities in line with the project's guiding axis'. For instance, this project involved the participation of social entities to create a business to support homeless individuals in their journey towards employment. Additionally, a story, addressed to children aged 3 to 5 years old. was prepared to explain why some people do not have jobs at a certain point in their lives, noting that the intention was not to conceal the harsh reality that these individuals face.



In 2020, the 'CM: Clever Meals' project was launched with partners from Greece. Lithuania and Poland. The project aimed to promote easy and healthy menus to fulfil the food and nutritional needs of people worldwide while simultaneously providing workplaces with social purpose. Participants also investigated the relationship between the project aims and the UN Sustainable Development Goals (poverty, zero hunger, gender equality, and responsible consumption and production). During the project, the group devised ideas for creating an instant and nutritious soup, as all ingredients would be dehydrated. which would be easy to deliver throughout Europe. Unfortunately, they found the process to be costly when looking for a real company to produce it. In 2018, they launched the 'ORFI Restaurant -Our Restaurant Fostering Inclusion' project with partners from Greece, Italy and Serbia. The aim was to promote inclusion and collaborate with NGOs that work with people with disabilities. Together, they created guidelines to facilitate access to restaurants based on their needs

As Maria Isabel commented, the classroom takes on a new dimension with eTwinning projects. Pupils become motivated and look forward to collaborating with peers from other countries, suggesting that these projects bring life, innovation and richness to her classes, extending learning beyond the walls of the classroom.



According to Maria Isabel, pupils at that age value educational innovation when it is related to their future work reality. eTwinning projects provide manageable challenges that prepare them for emerging professional needs. These projects address social issues that are relevant to pupils' environment and current professional challenges. By working internationally, pupils gain a rich learning experience that enhances their training.

ETWINNING SCHOOLS: BUILDING A CULTURE OF INNOVATION

'eTwinning projects have been a valuable experience for our school. We have established international partnerships, shared best practices and gained new insights into teaching and learning. Our pupils have benefited from collaborating with peers from other countries, improving their language and digital skills, and becoming more culturally aware. Overall, eTwinning has been a valuable resource in providing a high-quality international education for our pupils', Maria Isabel stated.

Looking back at how her school was 6 to 7 years ago, she mentioned that there have been several changes. Pupils now have the option to do their training in vocational schools in other European countries, English is more prevalent in the classes, teachers have more networking experience and participate in training programmes, striving to improve and remain updated, keeping in mind the needs of the world of work.

Receiving the national eTwinning award and recognition for her work definitely played a role in this. Networking with other teachers and schools through the programme also helped her to create new opportunities and connections. She emphasised, 'Having an open mind is crucial, and most importantly, the teaching team should be willing to embrace new practices that align with the needs of the job market. It is also vital to create learning opportunities that involve companies and provide practical and hands-on training. This collaboration promotes the optimal preparation of pupils.'

(67)

Another benefit for her adult pupils is the opportunity they are given for online international collaboration, as some of them are not able to travel abroad for personal reasons. But they still have opportunities to develop their skills by collaborating online with their younger peers.

69



'Our school has adapted to change as our specialties are closely tied to community services, which requires us to stay up to date with the evolving needs of the community. This has taught us the value of flexibility and to let go of rigid structures. Being open to change is the key to success in our field', she concluded.

68





Innovation is a term that has gained prominence in education over the last few decades and is often viewed as a critical **driver** of progress and a key factor in meeting the changing needs of learners and society. In

this regard, several EU policies and practices have been shaped to encourage and support the introduction and implementation of innovative actions in school education, which this publication attempts to illustrate through examples of eTwinning projects and school practices implemented in eTwinning Schools.

Since 2005, eTwinning has been perceived as an innovative educational practice that

supports teachers and pupils in enhancing their key competences in collaborative international project work with diverse themes. The eTwinning projects and practices described in this book showcase how pupils' cognitive, social and emotional competences can be cultivated, as described in LifeComp. These competences are necessary to thrive in school and in life. as reflected in the 'Pathways to School Success' Council Recommendation. In addition, both the eTwinning projects and the school practices implemented in eTwinning Schools constitute tangible examples of implementing the priorities identified in the DEAP, including digital competence development and high-guality, inclusive and accessible digital education supported by European collaboration. Teachers' narratives also showcase how eTwinning promoted blended learning on

the basis of a deliberate and evidence-based pedagogical

approach entailing active learning, collaborative learning and personalised learning – elements of innovative education according to the <u>2030 European training</u> <u>framework</u>.

The 10 case studies from eTwinning Schools suggest that the key elements of innovation in education are the following.

- Innovation is person centred, addressing teachers and/or pupils, with the aim of providing an alternative, more engaging way of learning.
- Pupils should be empowered to drive innovative practices in the classroom, with teachers acting as facilitators.

(71)

- Parents are important players in supporting innovation; collaboration between home and school is essential to better support and prepare pupils effectively.
- A **supportive school management team** that encourages taking initiative and is open to new ideas can create an environment that fosters innovation.
- **Collaboration among teachers** can assist innovation by providing a network of support for those who struggle to move out of their comfort zone, and by showing them that embracing change and trying new things are possible.

- Most of the time, innovation will deploy technological means; yet technology is not (always) the innovation itself.
- Preparing pupils for the future requires developing essential skills and competences such as creativity, critical thinking, problem-solving and collaboration. Innovation in education is crucial to achieving this.
- Personalised learning and differentiated opportunities for pupils due to innovative practices in education are key components in preparing pupils for a global, competitive workforce in the 21st century.
- Professional development is essential to provide teachers with the confidence to try innovative practices.
- Recognition can play an important role, as teachers who feel their work is recognised are more likely to continue in that direction and inspire others.
- A jointly developed school plan can allow the escalation of innovative classroom practices at the school level.

Based on the case studies, teachers have reported that **participating** in eTwinning has enabled them to introduce innovative practices in their classrooms and, in some cases, this has

led to innovation at the school

level. For instance, teachers have highlighted that participating in eTwinning has offered a European dimension to their school, providing them with the skills to pursue other opportunities offered by the Erasmus+ programme. **Being an** eTwinning School has facilitated the process, as schools adopted these practices and became more open to the community. As change is inevitable, schools must remain open to new developments and keep up with the fast-evolving landscape. Innovative educational practices are essential for equipping young people with the skills they need to succeed in the 21st century.

Overall, the main key message of this publication is that **innovation** can take many forms, depending on perspective, competences and past experiences. For some, it may mean incorporating information and communication technologies into the classroom. while for others, it may mean developing and implementing new teaching methods or curriculum designs. It is this subjective nature of innovation that makes it a challenging concept to define, but it also opens up opportunities for creative and varied approaches to enhancing the learning experience. As pointed out by the teachers who contributed to this book. innovation mainly refers to having an open mindset and being willing to explore new and different approaches to solving problems.



(73)

(75)

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About the European School Education Platform

Launched in 2022, the European School Education Platform is the meeting point for all school staff (from early childhood education and care to primary and secondary education, including initial vocational education and training), researchers, policymakers and other stakeholders in the school education field.

The European School Education Platform is a single platform that integrates the former platforms and services of eTwinning, School Education Gateway and Teacher Academy. As of 2022, the eTwinning community has been hosted in a restricted area within the European School Education Platform. This area is only accessible to school staff validated by the National Support Organisations. Since its launch in 2005, eTwinning has grown from a grassroots initiative into an active school community and has involved more than 1 053 000 school staff working in more than 233 000 schools, across more than 40 countries. eTwinning provides a safe digital platform where teachers are engaged in various activities, from designing and implementing European collaborative projects to networking, and from participating in virtual groups to professional development and peer learning. Through its platform, which is available in more than 30 languages, eTwinning provides a range of resources and learning opportunities for teachers. The topics of these resources include the benefits of engaging with eTwinning, 21st-century skills, the use of ICT in education and project kits for inspiration and guidance. Registered teachers have access to the restricted area of the platform, called 'eTwinning area'.

The European School Education Platform and the eTwinning community are funded by Erasmus+, the European programme for education, training, youth and sport. They are initiatives of the European Commission's Directorate-General for Education, Youth, Sport and Culture. The platform is operated by European Schoolnet (providing coordination, content and services) and Tremend Software Consulting SRL (providing technical infrastructure), both under service contracts with the European Education and Culture Executive Agency (EACEA). The eTwinning community also exists thanks to the support of the National Support Organisations, funded by Erasmus+ under grant agreements with the European Education and Culture Executive Agency, and the Supportive Partners.

