

# DIGITAL TEACHING

In Natural Scientific Subjects





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## In Natural Scientific Subjects

### Design

**Lucília Pires**

**Tiago Sousa**

**Iúri Leal**

DIGITAL TEACHING  
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# About our Project

Most secondary schools try to use digital technologies in the process of education (they own PCs, notebook, projectors), and some own electronic teaching materials which are also available for their students. However, when it comes to use those technologies which students are a part of (smartphones, tablet, apps, etc.), schools are still behindhand. The aim of the project is focus on usage of smartphones/tablet computer in the lessons of natural scientific subjects (Biology, Chemistry, Physics, Geography). We are going to create mobile applications and teaching materials, which are going to be free and accessible to everyone (e.g. in Google Play).

**Transnational project meeting (Czech Republic)**

**1st-3rd November 2017**

**1st Work Meeting (Italy)**

**12th-16th March 2018**

**2nd Work Meeting (Romania)**

**23rd-29th April 2018**

**3rd Work Meeting (Sweden)**

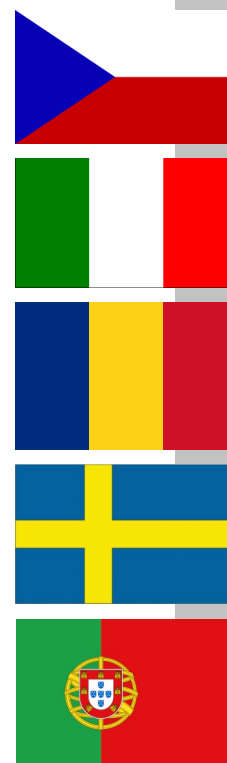
**19th-25th November 2018**

**4th Work Meeting (Portugal)**

**11th-15th March 2019**

**5th Work Meeting (Czech Republic)**

**29th-3rd May 2019**



**DIGITAL TEACHING**  
in natural scientific subjects



# Schools



**Escola Secundária de Loulé**



**Střední odborná škola a Gymnázium Staré Město**



**I.I.S.S. "S. Trinchese" Martano Lecce**



I.I.S.S. "S. TRINCHESE"  
MARTANO - TALIA



**NTI Gymnasiet Lund**



NTI Gymnasiet



**National College Anastasescu**



# Střední odborná škola a Gymnázium Staré Město

Střední odborná škola a Gymnázium Staré Město is a school located in Zlínský Region and there are some 700 students educated in GCSE branches of Grammar School, Agriculture Business, Civil Engineering, Sport Management, Economics and Business, Mechanic – Tool Setter, and in vocational branches of Motor vehicles mechanic, Machine mechanic, Joiner, and Metal worker. The aim of our school is to prepare the students of CCSE studies for university studies and the students of vocational branches for their future not only by providing quality education but also by cooperating with employers in our region.



Our school supports talented students (football players of 1.FC Slovácko), athletes (junior champion of Slovakia or Central Europe champion in discogolf). Besides that our school was recently involved in an Erasmus+ project focused on researching water from different points of view (Physics, Chemistry, Literature, Art, Biology etc.). Our participation in this project provided the school valuable experience related to project leadership and administration.

Nowadays, we are the only school in the

Czech Republic that gained CertiLINGUA certificate. CertiLINGUA is a European award of quality. Excellent award CertiLINGUA is granted for language, European, and international competences and is an additional certificate to a national GCSE certificate. It illustrates the ability of a student being able to act in two or more international languages. Schools granting CertiLINGUA certificate offer at least one subject educated via CLIL (our school educates CLIL in a Geography Seminar) and make an effort to develop students' intercultural competences by working on European and international projects.

By working on mentioned projects we try to develop skills not only of students, but also of teachers. Our goal is a modern approach in lessons, development of critical thinking, and support to involve ICT into other subjects. We cooperate with our students also in after school activities by way of study circles (floorball, beekeeping – our school owns two bee colonies, folklore company, huntsman company, etc.).

Video about this School: etc.).

<https://www.youtube.com/watch?v=j0lCXSn0hpU>

This School Website:

[www.sosgsm.cz](http://www.sosgsm.cz)

This School Facebook:

[www.facebook.com/sosgsm.cz](https://www.facebook.com/sosgsm.cz)

# Escola Secundária de Loulé

Loulé Secondary School has 135 teachers, 35 non teaching employes and offers: Regular Education - Science and Technology, Socioeconomic Sciences, Arts and Language and Humanities, in a total of 26 classes in the three years of school in Portugal (10th, 11st and 12nd); Vocational Education - Computer Equipment (3), Computer Programming (3), Electrical Installation (2), Graphic Design (3), Multimedia (3), Renewable Energies (1), Restaurant Technician (3), Cooking (3), Environmental and Rural Tourism (3), Automobile Mechatronics(3), Sports (3) Health Care (3), Educational Assistant (1) and High Voltage Networks (1) in a total of 35 courses in the three Years of teaching (10th, 11st and 12nd) and Adult Teaching Night Courses. It has a total of about 1200 students, between 15 and 21 years of age, distributed by all the training modalities.

The school encourages and supports partnership building, cultural and linguistic exchanges and mobilities, considering them to be extremely valuable for students and teachers, in order to enrich and open horizons. The school educational project, entitled "Orienting knowledge, developing skills, preparing for citizenship" one of the main objectives is to provide instruments for academic and professional success in an increasingly competitive and multicultural Europe. In its vision for the future, it aims to open



the school to the world, preparing students and teachers with a global vision of the education system.

The school's priority intervention areas are: "diversification of teaching/learning methodologies aimed at improving cognitive, academic and professional skills with quality, autonomy and creativity; Creating conditions that foster active European citizenship, in a pleasant climate and easing interactions; Buiding educational partnerships at local, national and international levels and promoting scientific, linguistic, cultural and social development for the school community; Offering alternative training courses that respond to the expectations of young people and their families and the demands of the business community in the region while allowing the development of social, academic and/or motivational skills to help them avoid school drop out. The school population includes all social classes, but with a current situation of the country, there is a strong growth of families with economic difficulties. This is as-



# Escola Secundária de Loulé

sociated with social problems that are reflected in young people who arrive at school and who are also amplified by the extension of compulsory schooling from 16 to 18 years.

ESL is strongly committed to reverse these situations, by increasing motivation and diversifying and updating teaching/learning methodologies and teaching essays that approach a know-how, a classroom to the real world of young people, increasingly heterogeneous public. ESL develops internal evaluation mechanisms to improve service and results and is also submitted to independent external evaluation. ESL integrates the ESXCEL national project, whose objective is to promote educational excellence for the development, continuous evaluation and presentation of solutions and models of educational development.

ESL strongly encourages its staff to develop scientific and professional competencies, training, exchange projects and sharing of best practices as a way to improve the quality of teaching / learning and to promote educational success.

**Video about this School:**

<https://www.youtube.com/watch?v=5QASmfQ9ipg>

**This School Website:**

<https://www.es-loule.edu.pt/>

**This School Facebook:**

<https://www.facebook.com/esloule/>

# National College Anastasescu

**National College Anastasescu was founded on November 10, 1919 by two brothers, Ionel si Nicolache Anastasescu. The school is situated in Rosiori de Vede a small town at 100 kilometers distance by Bucharest, the country capital.**



**National College "Anastasescu" is a general secondary school, belonging to the state, with students aged 14-19, with two profiles: real (specialization mathematics-informatics and natural sciences) and human (philology-English / French). The team includes 65 teachers and 757 students. Two years ago the school was re-accredited by the Romanian Agency for Quality Assurance in Pre-university Education.**

**Management is provided by the school unit director, deputy director and board members. High School operates on a proper management plan.**

**The material base consists of: 1 auditorium, 33 classrooms; 1 special education teacher office; subject offices: history, foreign languages, mathematics, chemistry, biology, physics, two computers labs; gym; boarding and cafeteria.**

**Students have good results at school; high school graduation rate is 100%, while the average for the promotion of national Baccalaureate exam is 87%.**

**The mission of the school is to provide quality standards education, to transform today's adolescents in good professionals and European citizens fully aware of their value and competitive on the local and European labor market.**

**Our school is 8 years "Eco-School" and owner of Green Flag project initiated and implemented by CCDG and FEE. In this project, we implemented two more projects with the same theme: "Eat responsibly!" and "Litter Less Campaign" (global learning programs, focused on healthy education funded EU), both in progress this year. The people involved are teachers experienced in these projects, being involved directly, as project coordinators or collaborators.**

**College students participated in competitions, Olympiads, symposia at county and national level. In the previous school year we won 12 awards at national phases of school Olympiads.**

**An important partnership that has continuity at National College Anastasescu is the International Association EDMUNDO EDUCATION and GLOBAL CONFEDARATION OF ROMANIAN STUDENTS (Sweden) which aims to identify students who will continue their studies abroad, organizing conferences which shows the**

# National College Anastasescu

education system from different countries, organizing summer schools, integrating future

Romanian students in international systems.

Starting in September 2017, Anastasescu National College is the beneficiary of two Erasmus + projects:

- VET Mobility project, entitled "European Career in IT", which aims to develop HTML programming and multimedia editing skills to create web pages for a total of 30 students from the real profile, specialization Mathematics and Informatics;

- Strategic partnership project to support good practice in schools, "Digital teaching in natural scientific subjects" in partnership with high schools from: Czech Republic, Portugal, Italy and Sweden. The goal of the project is student-centered and consists of developing Android applications that can be used by students and teachers in teaching and learning of sciences.

Students involved in the project, under the guidance of specialists, will create applications for mobile devices as well as various other innovative materials that can be used during study classes.

The activities we take in school lead to the development of new skills for using mobile devices and programming languages specific to mobile applications for both students and teachers.

The teachers involved in this project attended training courses so that they acquire various competencies such as methodological skills, technical and technological, communication and relationship, ICT, use of mobile devices, foreign languages.

**Website:**

<https://colegiulnationalanastasescu.ro/>

**Video about School:**

[https://www.youtube.com/watch?v=ih0A\\_5TuNyU](https://www.youtube.com/watch?v=ih0A_5TuNyU)

**Facebook:**

<https://www.facebook.com/colegiulnationalanastasescu1/>



# NTI Gymnasiet

NTI Gymnasiet is Sweden's leading secondary school in tech, science and IT. At 20 locations around the country, our students are getting ready for a digital world in rapid change.

Video about this School: <https://www.youtube.com/watch?v=wY-RFBCfdgY>

This School Website: <https://www.ntigymnasiet.se/>

This School Facebook: <https://www.facebook.com/ntiskolan/>



# I.I.S.S."S. Trinchese" Martano Lecce

We are a secondary school in a small town, called Martano, near Lecce in the southeast of Italy. With more than 750 hundred students (aged from 15 to 19) and almost 100 teachers (20 of them support students with special needs), the school started its operation, as independent structure in 1998. Almost 40% of our students live nearby, while the others commute from the neighbouring towns. Given that the school is divided in different sectors (Vocational for Social Services, Technical for Finance & Marketing, "Liceo Scientifico" and "Classico"), our pupils display a wide range of attitudes towards formal education, from those who are highly motivated to those with learning difficulties or physical disabilities.

In some of our classes, there are some pupils with special needs, well integrated among their fellow students. They follow lessons as the other ones at the same time, and participate in some activities, which provide scope for their creativity.

Our students have different backgrounds, some come from suburban or rural areas, some from single parent or pathological families, some from lower social status ones. Many of our students do not have any opportunity to go abroad (on holiday) either due to economic difficulties or because, living in a peripheral area, they are not used to a dynamic way of life. For this, it is very important for pupils in this

rural community to begin to see themselves as citizens of tomorrow's Europe, and to start to consider Salento and Puglia in the wider context of diversity within a common European heritage.

We look forward to working with a range of partner schools in order to enhance lifelong learning skills that will contribute to pupils' employability in the increasingly mobile Europe of the 21st Century. Our school shows great attention to the European dimension meant as the development of active citizenship and as support for the integration processes and European unification.

In line with the objectives of the Europe 2020 Strategy, our school strives to promote the mobility of European citizens, to foster lifelong learning and the acquisition of transversal skills in order to raise the level of education and training of our students and increase competitiveness on the labour market.

**Video about this School:**

**This School Website:**

[https://www.trinchesemartano.eu/pvw/app/LEII0008/pvw\\_sito.php](https://www.trinchesemartano.eu/pvw/app/LEII0008/pvw_sito.php)

**This School Facebook:**

<https://>



I.I.S.S. "S. TRINCHESE"  
MARTANO - TALIA

# Project Phases

## **Transational project meeting**

**1st-3rd November 2017**

**On the first meeting, was the first meeting of the teachers working for the project.**

**The teachers formed a team, a great team.**

**They have prepared the mobilities and choose the term of it.**

**They has distributed the responsibility and created a solid team for the project.**

**Participants ( only Teachers ):**

**Italy: Maria Antonia Petrachi and Francesco Taurisano**

**Portugal: Duarte Duarte and Paulo Ribeiro**

**Romania: Alina Savu and Șerban Răceanu**

**Sweden:  
Moana Widell  
and Lena Eden**



**Group photo in the Transational project meeting**

# Project Phases



Group photo in Italy

## **1st Work meeting ( Italy ) 12th-16th March 2018**

**Meeting about ICT, each partner presented one Workshop about the subject.**

**Students and Teachers shared the presentation.**

### **Participants:**

#### **Czech Republic**

- **Students: Michaela Ježová, Simona Chovancová and Tereza Švédíková**
- **Teachers: Soňa Patočková and Benedikt Chybík**

#### **Portugal**

- **Students - Francisco Ro-**

**drigues, Rúben Ferreira, Tiago Sousa and Vasco Raminhos**

- **Teachers - Duarte Duarte, Lucília Pires and Paulo Ribeiro**

#### **Romania**

- **Students: Eduard Miella, Daniel Pirvu and Stefan Cocioran.**
- **Teachers: Adriana Pirvan and Alina Savu**

#### **Sweden**

- **Students: Felicia Baki Lindberg, Alice Linder and Ludwig Welandar**
- **Teachers: Lena Eden and Moana Widell**

# Project Phases



Group photo in Italy

## **2nd Work meeting ( Romania ) 23rd–29th April 2018**

**Meeting about Biology, each partner presented one Workshop about the subject.**

**Teachers and Students shared the presentation.**

### **Participants:**

#### **Czech Republic**

- **Students:** Tereza Frantova, Simon Marecek and Josef Juricka
- **Teachers:** Sona Patockova and Martina Suchankova

#### **Italy**

- **Students:** Garrisi Ilenia, Ginnaccari Alessandra, De

**Santis Gabriele, Lanzilotto Assunta, Poenaru Ștefania Ioana and Vitto Maria Chiara**

- **Teachers:** Paola Mancarella and Francesco Taurisano.

#### **Portugal**

- **Students:** Ana Carlos, João Soares and Mafalda Machado.
- **Teachers:** Hélia Caetano, Margarida Silva and Paulo Ribeiro.

#### **Sweden**

- **Students:** Daniel Lundquist, Tobias Ingerheim Olofsson and Hooman Amiri
- **Teachers:** Carin Hansson and Niclas Andersson



# Project Pha-



Group photo in Sweden

## **3rd Work meeting ( Sweden ) 19th–25th November 2018**

**Meeting about Physics, each partner presented one Workshop about the subject.**

**Teachers and Students shared the presentation.**

### **Participants:**

#### **Czech Republic**

- **Students:** Kristýna Andrášková, Viktória Volasová, Kateřina Balejová, Lenka Bolfová, Stanislav Psoťka, Petr Fialík and Šimon Kocáb
- **Teachers:** Soňa Patočková and Silvie Chybíková

#### **Italy**

- **Students:** Giulia Campinopoli, Giada Gravili, Laura Pariti
- **Teachers:** Tetti Petrachi, Francesco Taurisano

#### **Portugal**

- **Students:** Iúri Leal, Andreia Cordeiro and Andriana Laginha
- **Teachers:** Duarte Duarte, Paulo Ribeiro and Gisela Barros

#### **Romania**

- **Students:** Alexandra Ștefan, Felix Vișinică and Daniel Pîrvu
- **Teachers:** Șerban Răceanu, Paul Enache and Alina Savu

# Project Pha-



**Group photo in Portugal**

## **4th Work meeting ( Portugal ) 14th–15th March 2019**

**Meeting about Geography, each partner presented one Workshop about the subject.**

**Teachers and students shared the presentation.**

### **Participants**

#### **Czech Republic**

- **Students: Eliška Hrušková, Michaela Marková, Michaela Tomašítková and Vendula Zálešáková**
- **Teachers: Soňa Patočková and Lenka Wasserbauerová**

#### **Italy**

- **Students: De Pascalis Marco, Eleonora Pacella, Mariangela Galasso and Silvia Bono**
- **Teachers: Francesco Taurisano and Roberto Refolo**

#### **Romania**

- **Students: Adelin Letcanu, Andrei Vincz and Sorana Popa**
- **Teachers: Alina Savu, Florinel Bişag and Mihaela Marian**

#### **Sweden**

- **Students: Fabian Nilsson, Filip Eliasson and Oscar Andersson Engler**
- **Teachers: Carin Hansson and Niclas Andersson**

# Project Pha-



Group Photo in Czech Republic

## **5th Work meeting and TA ( Czech Republic ) 29th–3rd May 2019**

**Last meeting.**

**Meeting about chemistry, each partner presented one workshop about the subject.**

**Teachers and students shared the presentation.**

### **Participants**

#### **Italy**

- **Students: Emanuele Corricciati, Claudia Mastrolia, Alessandro Sergio and Eleonora Stomeo**

- **Teachers: Maria Antonia Petrachi, Michele Martano and Antonio Milella**

#### **Portugal**

- **Students: Carolina Descultu, Diana Necker and Mariana Faisca**
- **Teachers: Ana Maria, Duarte Duarte, Fernanda Martins and Paulo Ribeiro**

#### **Romania**

- **Students: Darius Sadeghian, Razvan Cristea and Florin Orodel**
- **Teachers: Alina Savu and Mihaela Marian**

#### **Sweden**

- **Students: Ludwig Welander, Oscar Engler and Hebung Batak**
- **Teachers: Carin Hansson and Niclas Andersson**

# Technological Tools

This technological tools were created by the students who participated in the project.

**Compass:**

<https://www.dropbox.com/s/wc01ad8s94agty9/AAALColoDKpgfAKoiTi3ZIX2a?dl=0>

**Sound Mapper:**

<https://www.dropbox.com/sh/iha5tjayo4wlrr5/AABH9Vs8a8rHgHI86BO6AAiCa?dl=0>

**App design:**

[https://www.dropbox.com/sh/8scf2fdzjkwydsy/AABOmHj-KGLc-9McpYI856f7a/APPs/Design?dl=0&subfolder\\_nav\\_tracking=1](https://www.dropbox.com/sh/8scf2fdzjkwydsy/AABOmHj-KGLc-9McpYI856f7a/APPs/Design?dl=0&subfolder_nav_tracking=1)

**Water tester:**

[https://www.dropbox.com/sh/8scf2fdzjkwydsy/AACIyeCfGlnkaHeFYtJkez9La/APPs/Water%20Tester?dl=0&subfolder\\_nav\\_tracking=1](https://www.dropbox.com/sh/8scf2fdzjkwydsy/AACIyeCfGlnkaHeFYtJkez9La/APPs/Water%20Tester?dl=0&subfolder_nav_tracking=1)



# Final Products

All the materials of this project could be found on this link

## Lesson plans

<https://www.dropbox.com/sh/ygliwikwbitbfy9/AACjyGyFGan7vvBm1D82BCIAa?dl=0>

## Mobilities Movies

[https://www.dropbox.com/sh/tpbjntznzxpibv/AADQpmH0Yoq-6\\_HI-6LXFXgoa?dl=0](https://www.dropbox.com/sh/tpbjntznzxpibv/AADQpmH0Yoq-6_HI-6LXFXgoa?dl=0)

## Apps

<https://www.dropbox.com/sh/f4ozwexrbjhxmkx/AADfwtJ1vN1WUoECstgjLGma?dl=0>

## Ebook

This is the ebook you are reading :)



# Project Evaluation

The purpose of project “Digital teaching in natural scientific subjects” was to show how smartphones and tablets can be used not only as devices that display images for fun, but also as measuring devices or as useful objects in the teaching-learning process. The whole project was built on three priorities:

- Open and innovative practices in the digital area,
- Promoting the acquisition of skills and competencies for both students and teachers,
- Achievement of relevant and high quality skills and competences both in terms of communication in a foreign language and in the field of new digital technologies.

The main objective of the project was the creation by students and teachers together of applications for mobile devices and the creation of new learning materials that could be used in teaching subjects such as Physics, Chemistry, Biology or Geography. Following the evaluation of the activities carried out at the five international meetings as well as the analysis of the training activities carried out in each of the schools participating in the project, we find that the objectives we have set at the beginning of the pro-

ject have been achieved. At the level of each school involved in this project, a selection process was conducted both for students and for teachers. This selection resulted in the participation in the project activities of a large number of students interested in digital and didactic innovation.

In each mobility, students and teachers from participating countries presented applications for mobile devices created by them or applications used by students already at to enrich their knowledge. At the first of the project's mobility, held in Italy in March 2018, students used online platforms to create interactive tests, showcased websites where games can be created without any programming knowledge, have created exciting games working together and learning from each other. Students and teachers "played" using mobile phones (using geographic coordinates previously prepared by Czech students to find clues) in an interesting “Treasure hunt”. Students also presented Android applications created by them in the form of an eBook containing theoretical information and practical applications, specific to the subject of Informatics. At the second mobility, held in Romania in April 2018, the sub-

# Project Evaluation

ject of Biology, students and teachers have demonstrated a lot of creativity, presenting numerous applications for mobile devices, applications used for easier and more attractive learning of this discipline (forexample, the nervous system, human anatomy, how the heart works, etc.). Preliminary experiments have been presented, combining classic research methods and modern technologies (extracting fruit DNA, water quality research using macroinvertebrates, etc.). By raising the level of creativity, students from Sweden and the Czech Republic, helped by teachers, presented how fun and useful it might be to programming Arduino. All activities in the workshops were marked by the high level of interactivity and the equal involvement of teachers and students. For the third meeting of the project, held in Sweden in November 2018, teachers and students have been involved in presenting how interesting and useful smartphones use is in teaching Physics. Various experiments and phenomena have been presented in the sphere of this subject. Practical experiments involving the use of digital technology (eg speed and distance measurement, metal expansion or heat effects) have been presented. All activities required the active participation of all, students and teachers. The fifth meeting, held in Portugal in March 2019, brought, besides a lot of sun, a digital journey into the fascinated world of Geography. Students and teachers chose to present in their workshops Android-based applications made by them, accompanied by tests and who subject matter is the physical geography of our continent or applications related to astronomy. Using digital technology, there were presented aspects of population geography or cultural aspects combined with geographic aspects. Practical experiments were also present, but all including digital technology (for example, a wireless weather station using Arduino). And now, as before, team work and mutual learning both between students and between teachers and students were present. The last meeting of this project, held in the Czech Republic in April-May 2019, brought to the attention of the students Chemistry and the ways to approach this discipline in a different manner. The students, together with the teachers, discovered that using modern technology, Chemistry becomes attractive and even funny. In addition to the applications used, students have made a number of practical experiments. In October-

# Project Evaluation

**November 2017, in the Czech Republic, the Transnational meeting was held with the coordinating teachers of this project. During this meeting, the responsibilities of each country participating in this project were established and various organizational aspects such as the preparation of mobility activities were discussed. Also, within the five learning activities carried out, Transnational Teacher Meetings were held to provide feedback and improve the activities.**

**All project partners have fulfilled their established responsibilities, respecting the time limits set, each participating school contributing to the achievement of the project objectives. Communicating between partners was excellent, no major obstacles were encountered, and there were no conflicts or communication difficulties. The cooperation between the partners of this project was very good, managing to define ourselves as a “team of friends” at the end of the project. From the discussions and the questionnaires applied with both the teachers and the students, the following conclusions can be made:**

**-Mobility training activities, activities carried out during mobility, in the individual reporting stages, interdisciplinary, respectively those carried out in within the final drafting and testing phases contributed to developing teacher capacity for student counseling on the path of personal development and professional experience.**

**-Activities have contributed to the development of teachers 'and students' communication skills in a foreign language.**

**-Activities have contributed to the development of teachers 'and students' skills in adapting non-formal learning (group learning, learning by group projects, role-learning, learning by discovery, etc.) in formal education, by testing in class the products they have created or discovered in this project.**

**-The activities contributed to the development of methodological abilities in the didactic field (formal or non-formal).**

**-Activities have contributed to the development of skills in the use of new digital technologies as well as in the use of ICT for both students and teachers.**

**-Activities have contributed to the development of organizational skills, the assumption of roles in a team, product development in co-authoring.**

**-The activities have contributed to the widening of the European citizenship horizon.**

**-Activities have provided examples of good practice that can be adapted to**



# Project Evaluation

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All project partners have fulfilled their established responsibilities, respecting the time limits set, each participating school contributing to the achievement of the project objectives. Communicating between partners was excellent, no major obstacles were encountered, and there were no conflicts or communication difficulties. The cooperation between the partners of this project was very good, managing to define ourselves as a “team of friends” at the end of the project. From the discussions and the questionnaires applied with both the teachers and the students, the following conclusions can be made:

- Mobility training activities, activities carried out during mobility, in the individual reporting stages, interdisciplinary, respectively those carried out in within the final drafting and testing phases contributed to developing teacher capacity for student counseling on the path of personal development and professional experience.

The project activities and its outcomes were presented to the entire school community, to the local and regional community through the participation and organization of various activities both locally and regionally or even nationally. The local or regional press articles, the social media pages of each school involved in the project, or the school websites were used to disseminate project activities..

- Activities have contributed to the development of teachers 'and students' communication skills in a foreign language.

- Activities have contributed to the development of teachers 'and students' skills in adapting non-formal learning (group learning, learning by group projects, role-learning, learning by discovery, etc.) in formal education, by testing in class the products they have created or discovered in this project.

- The activities contributed to the development of methodological abilities in



# Project Evaluation

the didactic field (formal or non-formal).

**-Activities have contributed to the development of skills in the use of new digital technologies as well as in the use of ICT for both students and teachers.**

**-Activities have contributed to the development of organizational skills, the assumption of roles in a team, product development in co-authoring.**

**-The activities have contributed to the widening of the European citizenship horizon.**

**-Activities have provided examples of good practice that can be adapted to each school.**

**-The activities carried out have developed cooperation between students and teachers, both at the level of each school and with in international teams. The mutual learning system has worked very well and represents a very significant gain of this project. Exchange of ideas and good practices, knowledge of other education systems, have contributed to changes in cross-curricular approaches (interdisciplinary learning, project learning, discovery etc).**



# Conclusion

**A well design project, by Ms Sona Patocková, with a excellent team, working in a complete tune up. Overcoming all the problems and arriving to the final result with a lot of quality.**



# Bibliographic References

**Twinspace**

<https://twinspace.etwinning.net/53534/pages/page/317714>

**With 2 already approved National Stamps for the eTwinning, waiting for others**

**Congratulations to Portugal and Romania!!**

