

STEM & ERASMUS+. CURRÍCULUM DE LOS PONENTES.

Participantes primer día.

A. José María Díaz Fuentes

Title: International Experiences related to STEM.

José María will tell us about his experience with the Science Fairs held in his school and town, after 12 years organizing it. Also "Ciencia in Acción" will be presented, with great projects developed there. eTwinning and Erasmus+ projects will be also showed, focus on STEM projects, training trough Schoolnet Academy and the experience in Finland will be another interesting part of his presentation.

- 1.- Actividades en clase para preparar una feria de la ciencia ya sea colegial o en la ciudad (nosotros llevamos ya 12 años en eso, lo que nos da cierta experiencia de organización).
- 2.- Ciencia en Acción, lugar donde presentamos nuestros mejores proyectos y nos enriquecemos de excelentes experiencias que adoptamos para nosotros.
- 3.- Colaboraciones eTwinning para hacer contactos internacionales (soy embajador eTwinning).
- 4.- Nuestro último Erasmus + K229 centrado en STEM (tuvimos nuestra primera movilidad el noviembre anterior pero ahora mismo está prorrogado por motivos del COVID).
- 5.- Cursos en la Schoolnet Academy, en School Education Gateway - éstos últimos con acceso a información de los Erasmus.
- 6.- Mi último Erasmus + KA1 en Finlandia el verano pasado y el próximo (prorrogado también) como job shadowing en un colegio de Finlandia también.

Todo esto nos ayuda a establecer criterios muy ricos para colaboraciones y amplios puntos de vista a tener en cuenta.

B. Rafael Montero Braga

1. Title of the presentation
Erasmus in the pandemic age: Virtual mobilities the eTwinning way
2. Abstract.
The coronavirus pandemic has halted most of the Erasmus+ mobilities but that doesn't have to stop your Erasmus project! Go on sharing and learning with your partners through extensive use of the eTwinning platform. Cannot travel abroad? Virtual mobilities are the solution! What has worked (and what hasn't!) on how we are adapting our current E+ projects during lockdowns and quarantines.
3. Small bio

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Rafael Montero is an Industrial Engineer with a Master Degree in Technical Design. He teaches Maths and Technical Drawing in a High School (Colegio Corazón de María) in Spain. Over the past decade he has participated in many European level projects (Scientix, Europeana, Engage, nanOpinion, inGenious and many more) where he has discovered the great impact they produce in their students. He is a strong advocate on developing technical vocations among students and increasing their European dimension. He has coordinated eight E+ projects and is a project evaluator from the Spanish National Agency.

C. Javier Redondas

1. Title of the presentation

Erasmus+ activities and STEM projects

2. Abstract.

Ideas for approaching a teacher training proposal (structured courses, job shadowings, participation in international conferences...) and collaborative projects with other schools.

STEM activity consisting in the design, assembly, launching to the stratosphere and recovering of a high altitude balloon with a payload equipped with sensors, cameras and data transmission and recording devices. All stages and steps are carried out by students of secondary education in an interdisciplinary approach.

3. Small bio

Javier Redondas teaches technology, robotics and ICT in the Secondary School of Candás (Asturias, Spain). His passion is to increase the student's motivation by using hands-on experiences and international collaborative projects. Javier is Scientix ambassador and has coordinated different Erasmus+ projects as well as previous Comenius projects. He is a member of the panel of Erasmus+ experts evaluators.

D. José Viñas

1. Title of the presentation

Sustainability of an Erasmus + project, even during pandemic

Sostenibilidad de un proyecto Erasmus +, incluso durante la pandemia.

2. Abstract.

The Erasmus +" STEM Clubs & Citizen Science" project has enabled our centre to have an organised science club. Since 2014, our school has participated in 10 Erasmus KA229 projects, seven of them related to science and technology. All this activity enriches the science club, promotes our town's science fair and

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connects us with other citizen science clubs around the world. This whole network constitutes the roots that support a sustainable project. During the pandemic, this network has been able to be used to create TV programmes, organise online activities in the village and create a space for scientists to talk to us from their homes.

El proyecto Erasmus + "STEM Clubs & Citizen Science" ha permitido que nuestro centro tuviese un club de ciencia organizado y proyección al exterior. Desde el año 2014, nuestro instituto ha participado en 10 proyectos Erasmus KA229, siete de ellos relacionados con la ciencia y la tecnología. Toda esta actividad enriquece el club de ciencia, promociona la feria de ciencia de nuestro pueblo y nos interconecta con otros clubes de ciencia ciudadana del mundo. Todo este entramado, constituye las raíces que sustentan un proyecto sostenible. Durante la pandemia, esa red ha podido ser utilizada para crear programas de TV, organizar actividades online en el pueblo y crear un espacio para que los científicos nos hablen desde sus casas.

3. Small bio

Jose Viñas teaches Biology and Geology at IES David Buján, Cambre- A Coruña. I was the coordinator of a pilot school in several European science projects, Spanish quality seal for the Erasmus + project "Engaging students STEM Clubs & Citizen Science". Last year I have taught Biomaking and Snack science experiments in the teacher training centers in Galicia. Nowadays I am working on Erasmus + projects, as a coordinator "Being a Biomaker. No passports needed" and as a teacher "Artificial Intelligence", being Science communicator at Science for kids TV Galicia program "Aquelando" and pedagogical advisor of the digital book of the Consellería de Educación-Galicia.

José Viñas es profesor de Biología y Geología en el IES David Buján, Cambre- A Coruña. Fue coordinador de escuela piloto en varios proyectos científicos europeos, sello de calidad español para el proyecto Erasmus + "Engaging students STEM Clubs & Citizen Science". Hasta el año pasado he enseñado Biomaking y Snack experiments en los centros de formación de profesores de Galicia. Actualmente estoy trabajando en proyectos Erasmus +, como coordinador "Being a Biomaker". No passports needed" y como profesor en el proyecto "Inteligencia Artificial", soy presentador del programa "Aquelando" de TV Galicia y asesor pedagógico del libro digital de la Consellería de Educación-Galicia.

E. Daniel Aguirre Molina

1. Title of the presentation

Scientix: The community for Science Education in Europe

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2. Abstract.

The Scientix project brings together a lot of projects and resources related to Science Education. The initial idea of being a repository of information has turned out to be an important contact point of innovative and very active teachers and researchers, working in a community expanding ideas, new projects and solutions for our more usual situations related with STEM education from kindergarten to University levels.

3. Small bio

Daniel Aguirre is a Physics and Chemistry teacher in Colegio Pedro Poveda of Jaén (Spain). He is Scientix ambassador and he has organized several Erasmus+ projects in his school during the last 14 years. He is in charge of Erasmus in his school and tries to promote the participation at international levels of the educators and students.

F. Miguel Ángel Queiruga Dios

1. Title of the presentation

Adaptación de la docencia experimental a tiempos de COVID-19 y su evaluación

2. Abstract.

La enseñanza desde el confinamiento supuso un reto para todo el profesorado. En esta comunicación se describe cómo se adaptó la docencia de asignaturas, con gran carga de experimentalidad (actividades prácticas y de investigación), a la virtualidad. Posteriormente se evalúa a partir de la retroalimentación del alumnado.

3. Small bio

Licenciado en Ciencias Físicas por la Universidad de Salamanca y Doctor por la Universidad de Burgos en Enseñanza de la Física. Experto Universitario en Aplicaciones Multimedia. Tras 20 años como docente en Enseñanzas Medias, actualmente es Profesor Ayudante Doctor en el Área de Didáctica de las Ciencias Experimentales en la Universidad de Burgos. Vinculado a proyectos europeos: Scientix (proyecto de European Schoolnet para la Comisión Europea de la Innovación y la Investigación), Erasmus+, Europeana, PLATON, STEM Alliance y EU Code Week Leading Teacher. Miembro de la Junta Directiva División de Enseñanza y Divulgación de la Física (DEDF) de la Real Sociedad Española de Física (RSEF). Recientemente ha recibido un reconocimiento Aciertas, otorgado por la Confederación de Sociedades Científicas de España (COSCE), el reconocimiento internacional Global Teacher Awards y el Premio de Enseñanza y Divulgación de la Física (modalidad Enseñanzas Medias) de la RSEF-Fundación BBVA.

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Participantes segundo día.

A. Malgorzata Zajęzowska

Bio

Teacher Trainer at CEN Bialystok.

Scientix Ambassador for Poland (2009-2020) and Member of Europeana DSI-3/DSI-4 Developer Group.

She is a chemistry and English teacher at Saint John Paul II Primary School no. 45 in Białystok, a leader of the Team for International Educational Programs and Projects. She is qualified in oligophrenopedagogy and education management. Active expert on the professional development of teachers on behalf of the Ministry of National Education.

Abstract

Our Creative Cloud.

Creativity is 1% proces and 99% mindset. It's the 1% that keeps us from unlocking the 99%.

A workshop on how to make the vision of creativity in teaching with the use of social media. How to creatively deal with challenges by building an environment conducive to creativity. Practical tips for teachers from primary and secondary levels.

AGENDA

1. Creativity - meaning groups.
2. The most popular words synonymous with the word creativity.
3. A creative teacher and creative student.
4. Barriers to building an environment conducive to creativity.
5. Overcoming difficulties through understanding the factors that determine creativity and favour creativity.
6. STRENGTHENING CREATIVE ATTITUDES.
7. Recommended literature.
8. A vision of creativity in teaching with the use of social media.

B. Carlos Cunha

1. The importance of Technology in Emergency situations
2. The global pandemic of COVID-19 has shown that no educational system was really prepared to face a forced distance between teachers and students over 3 school months. On the other hand, it showed that schools that have been placing strong bets on Innovative Learning Spaces and on electronic support platforms, such as TEAMS,

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GOOGLE CLASS, among others, were able to carry out a relatively quick and peaceful transition from classroom teaching to Teaching the Distance (E @ D).

This presentation will show the transition that took place at ColégioMilitar. Lisbon, and how the work started in 2017 proved to be of great importance in this emergency situation.

3. Carlos Cunha holds a degree in Chemical Engineering and a master's degree in Laboratory Physics, History and Teaching of Physics. In 2002, he was certified as a teacher trainer. Since then, he has held several workshops for General Directorate of Education and the Educational Evaluation Institute. He has always been interested in the introduction of ICT in teaching as tools that facilitate communication and learning. In 2009, he started collaborating with European Schoolnet and brought to Portugal the concept of the Future Classroom as an innovative learning space. This room opens in 2014 at Dom Manuel Martins Secondary School, in Setúbal, at the service of the National Educational Community. It is named since 2014 Microsoft Inovator Expert Educator. He was the first Portuguese Scientix ambassador and still maintains this activity with the international educational community. It has been in the schools where he teaches, the Comenius project coordinator and later the Erasmus+ projects coordinator, being the general Erasmus+ Coordinator of his current school, ColégioMilitar in Lisbon.

C. Monika Bartova

1. Experience of our school with distance education

2. The presentation will show the experience of ElementarySchool, KlasterecnadOhri, Školní 519 and also other schools with similar social weak students. The global pandemic of COVID-19 hit us last school year and nobody supposed that our schools could be closed for students for more than 3 months. Schools - teachers, pupils, parents and equipment were not prepared for distance education. The situation was really new for everybody. Coronavirus second wave has been there again. We are again at schools without children. How did we solve the problems with education without all children at schools and what has been changed since the first wave? Are we prepared to solve all problems with distance education?

3. Monika Bartova is a headmistress of Elementary School in KlasterecnadOhriCzech Republic and a chemistry teacher. She was the Comenius project coordinator and now she is an Erasmus+ projects coordinator at school. In the past she was a member of European Schoolnet. She coordinated STEM projects– iTEC, InGenious.

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E. Mervi Tikkanen

Bio

I'm a special needs teacher, working with the students with special needs over 25 years. Our school, Jokiranta School is situated in Ylivieska, in southern part of North Finland. We have over 600 students from 13 to 16 years old. As Erasmus-projects I first took part in Job Shadowing as an ordinary teacher. After that I coordinated the next KA1-project in our school. Then we got our first KA2-project which we joined in as partners as Germany was the main coordinator. The project was ready-planned when we joined in. I was coordinating it in the behalf of our school. While it was in the end, Germany asked if we were interested in to join another project and if we were eager to be main coordinators. We got two more schools, Spanish and Greek to join in it and we planned it together. I have been only 4 years taking part and coordinating in Erasmus-projects but year after year there have been more demanding tasks for me which has helped me to develop my skills.

Abstract

I will first talk about Erasmus-projects, especially KA2-projects, the reasons why it is a good way to work with children, which are the benefits and what KA2 is and what it isn't. I will also tell you about KA1-projects.

After that we will tell about our ongoing project, give it as an example about the project, tell what we are doing, why are we doing and how did we face Covid-19.

F. Katerina Roumpi

Greek Math teacher in lower secondary school in Athens. (200 students, 20 teachers).
5 years experience in erasmus+ project. Coordinator of 2 KA1 projects in my school (one still in progress, uncertain future because of covid)
Member of 2 KA2 projects (one still in progress, with Mervi Tikkanen/ Finland as coordinator).

Erasmus programs gave me the opportunity to open my horizons, meet interesting people, make friends and learn so much from good practices in european schools. It also gave motivation to my students to study and create beautiful work to share with students from Europe.