

Report on granted activity in the framework of the European Inventor Network



Name of the alumnus who implemented the activity:

José Ángel Ávila Rodríguez

Short description of the activity

Visit to two schools to inspire students towards Science, Technology, Engineering, and Mathematics (STEM), placing a particular emphasis on encouraging girls to consider careers in these fields.

The presentations also highlighted the importance of humanitarian subjects, delved into complex topics such as relativity and quantum mechanics, and stressed the significance of Europe, its values, and the importance of learning other languages and cultures.

Engaging students through presentations and discussions, the visit emphasized the multifaceted world of STEM. The delivery was complemented by videos showcasing the European Patent Office, space exploration, and the technological marvels of Galileo. Students gained insights into satellite navigation principles and the importance of safeguarding ideas. The presentation underscored the intricate nature of engineering, fostering a sense of appreciation for the humanitarian dimension inherent in monumental scientific endeavors. The crucial role of humanitarian subjects in complementing technical expertise was stressed, underscoring the holistic approach required for successful outcomes. Addressing complex scientific theories and their impact on our lives further enriched the students' understanding.

In an effort to demystify complex technologies, I engaged the students in interactive games. The objective was to simplify intricate concepts, allowing the students to grasp the workings of some of the most complex technologies in today's world. Specifically, the games focused on elucidating the European Navigation system Galileo and telecommunication networks. These activities not only brought an element of fun to the learning process but also provided tangible, memorable experiences to reinforce theoretical knowledge.

Date and place of the activity

Two schools in Madrid, Spain:

-Colegio Madres Concepcionistas Princesa (February 29th, 2024)

-Colegio Patrocinio de San José (March 1st, 2024)

Audience (number and age of the participants)

About 300 students, aged from 14 to 18

Key messages delivered

The key messages conveyed during the presentations encompassed various facets: The significance of women in STEM was highlighted, aiming to empower young girls to pursue careers in these fields. The message was not just about equality but recognizing the unique perspectives and contributions women bring to scientific and technological domains. Encouragement was given to students to pursue their passion in STEM, emphasizing that joy in learning and genuine interest in a subject are the foundations for success. The belief that any field of study can bring happiness if chosen out of passion and interest was a recurring theme. The importance of teamwork and diversity was emphasized, particularly noting that my own team at work consists of more women than men. The emphasis was on meritocracy, showcasing that diversity contributes to a richer and more innovative working environment. The need for continuous learning and adaptability was stressed, especially in the context of a rapidly changing professional landscape. Students were encouraged to stay curious, open-minded, and adaptable to new realities, recognizing that what is learned today may become outdated in a few years.

A notable aspect of the presentations was the significant participation of girls, constituting

approximately 50% of the total attendance. This balanced representation was particularly gratifying, aligning with the objective of encouraging and empowering young girls to pursue careers in STEM. The active involvement of girls in discussions and their engagement with the presented topics reflected a positive shift towards gender diversity in STEM fields.

Outcomes and achievement

The visit to Madrid schools proved to be a tremendous success. The engagement with students, coupled with the emphasis on STEM, the value of humanitarian subjects, complex scientific theories, and the significance of Europe and its values, marked a turning point in their educational journey. The impact resonated not only with the students but also with the educational institutions, affirming the importance of fostering a passion for STEM, recognizing the interdisciplinary nature of significant endeavors, inspiring the next generation of innovators and leaders, promoting gender diversity in STEM fields, and making complex technologies accessible through interactive and engaging activities.

The experience left a lasting impression, not only on the students but also on the teachers and directors of both schools. Their gratitude was expressed in recognizing the transformative nature of the visit. The European Patent Office's support was instrumental, creating a turning point in the lives of these students, installing messages of the importance of dreams, openness to the world, acceptance of its challenges, the recognition of the value of humanitarian subjects in the success of complex projects, and the relevance of complex scientific theories in our daily lives.

Both schools recognized the incredible value of the activity promoted by the European Patent Office and expressed their enthusiasm for extending the initiative to many more schools. Both schools welcomed the prospect of my return at the earliest possible occasion to sustain the positive momentum generated during this visit.

Recommendations

My recommendation for future initiatives is to introduce an Idea Competition with Space-Themed Prizes. This creative competition aims to inspire students to propose innovative solutions or projects related to space, technology, or STEM in general. Outstanding ideas would be recognized with small space-themed presents, fostering creativity and providing tangible rewards for imaginative thinking.

Pictures from Colegio Madres Concepcionistas Princesa:



View of the Assembly Hall on February 29th



Presentation to 14-year-old group



Gathering after lecture to 18-year-old group



Round Table with Students specialized in Science (15 years old)

Colegio Patrocinio de San José (March 1st, 2024)



Event Poster (March 1st 2024, Patrocinio de San José, Madrid, Spain)



From left to right: Fabián de Torres Rodríguez (Head of Patrocinio de San José School), Isabel Guillén Martín, (Main school Director), José Ángel Ávila Rodríguez (European Inventor Award 2017), Javier Linaje Peña (José Ángel's teacher in Chemistry and Physics when he was a student at the school and organizer of the event organized at Patrocinio de San José School)



View of the Assembly Hall on March 1st



Round Table with Students specialized in Science (18 years old)



Round Table with Students specialized in Science (18 years old)