



Co-funded by the
Erasmus+ Programme
of the European Union



Innovation and educational interventions in school

KA101 – School education staff mobility

2019-1-EL01-KA101-061844

2019-2020

Second Lyceum of Kalamaria



Basic needs of School Unit

The basic needs of our school unit resulting after research and analysis are identified in 4 key areas.

1. Effective operation of the unit and encouragement of participation and cooperation of teachers and students.
2. Prevention and management of crises and conflicts inside school.
3. Integration of foreign students into the school community and the avoidance of student leakage
4. Adoption of innovative STEM teaching methods.



Key Action 1. School Leadership and Educational Innovation



The effective functioning of school unit is based on strategic planning and effective management of human resources. It is therefore necessary the Head of the School Unit to participate in a course

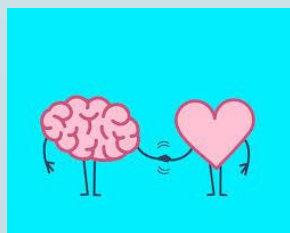
- aimed at inspirational leadership
- planning and implementation programs and actions that strengthen teacher-student relationships
- and enhance participation, collaboration and exchange of experiences and ideas between European schools.



Key Action 2. Conflict Management, Emotional Intelligence and Bullying Prevention

Crisis prevention and management is a fairly common phenomenon in modern schools. In particular, our school has previously been called upon to deal with incidents of conflict, harassment and bullying, without teachers being able to recognize or deal with such incidents.

Recognizing, differentiating and responding to the ever-present crises and to aggressive behaviors among students and teachers, can often be used as a tool and an incentive to build a resilient school community. So, it was considered necessary for a teacher to be involved in a course aimed at dealing with problematic situations and aggressive behaviors that create an unfavorable classroom environment and inhibit the learning process.



Key Action 3. CLIL in Practice

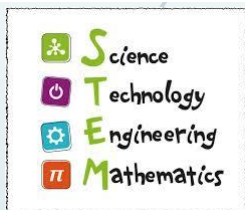
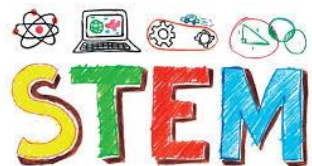
In Greece nowadays there are many students who do not have Greek as their mother language and the leakage of these students is quite intense.

Learning Greek language on issues of students' interest, enhances their normal integration into the school community and develops communication skills and cooperation. In addition, all students broaden their knowledge of languages and cultures in a natural, exploratory and discoverable way.

So, it was considered necessary for a teacher to participate in a course about languages such as CLIL.



Key Action 4. STEM Education: Concepts, Methodologies, Tools and Applications



One of the basic needs of the school unit is the adoption of innovative methods of teaching that incorporate scientific concepts into the educational process in such ways that motivate students' interest.

So, it was considered necessary for one of our teachers to attend a course that focus on

- integrating and utilizing educational applications in educational practice
- enhancing teaching and learning with additional supporting material.

Through this course our teacher will enhance the confidence to integrate to his/her lesson plans new objects and upgrade its quality educational project.

In addition, STEM technology will provide additional incentives for students and will enhance exploratory and discovery learning.

Mobilities - Results

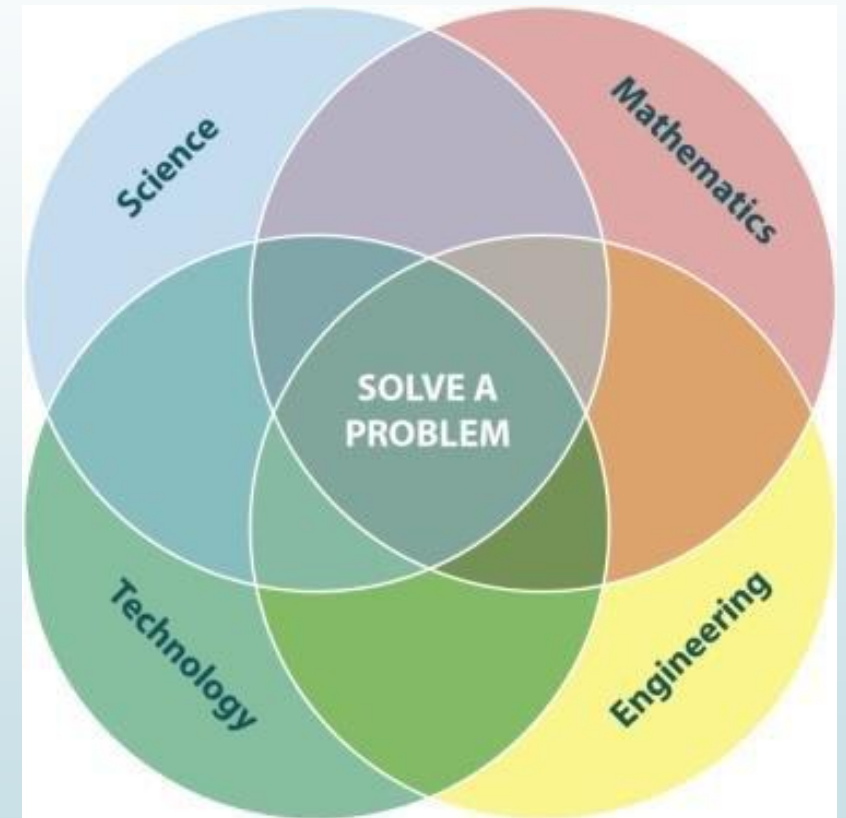
- ▶ Title : "Innovation and Educational Interventions in School"
- ▶ Duration : 18 months (Sep 2019 - Dec 2020)
- ▶ We had to cancel two (2) mobilities due to COVID-19 pandemic
- ▶ 3 teachers participate in the following training programs:
 - ❖ Digital classroom: Use of new technologies in education, Inverted Class Model & STEM method (Science, Technology, Engineering and Maths)
 - ❖ School leadership and educational innovation

KA101 - STEM method (Science, Technology, Engineering

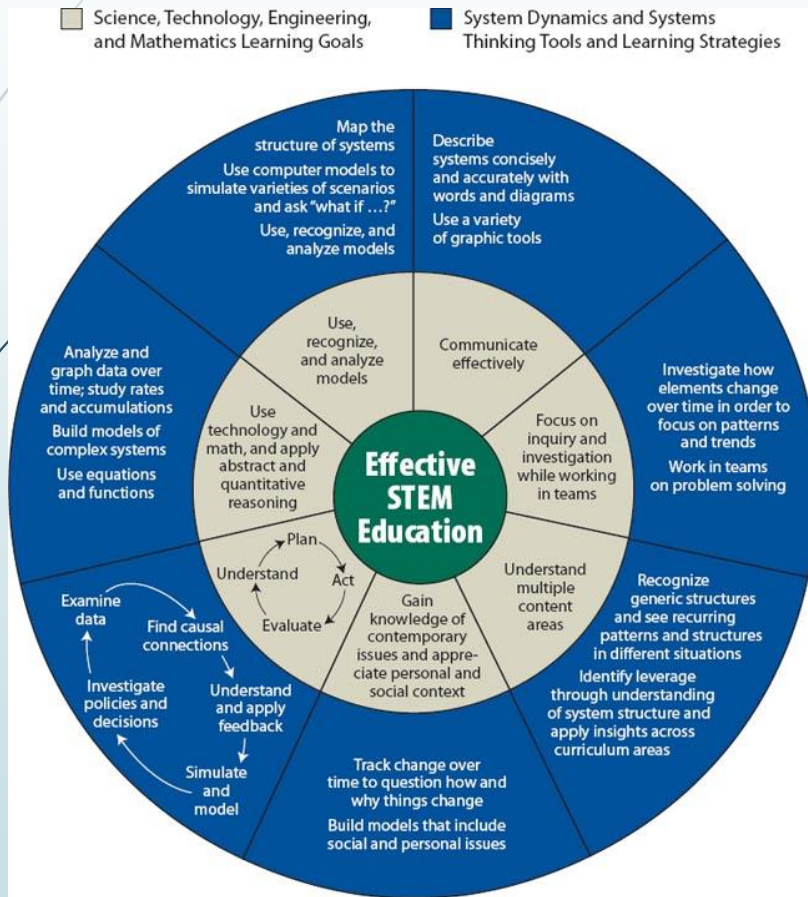
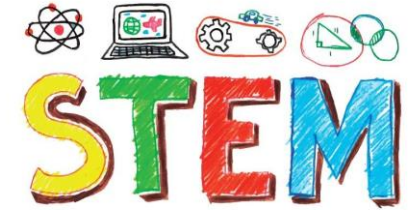


S.T.E.M. (Science, Technology, Engineering and Mathematics) is a methodological approach in Education that attempts to transform traditional teaching to a new way of teaching where problem solving and inquiry-based learning will play a dominant role in the curriculum, while learners develop creativity and team learning to discover solutions in a problem.

Students are creatively and collaboratively involved in groups in order to provide solutions to real-world problems. A prerequisite for applying STEM methodology is the use of problem-solving method



KA101 - STEM method (Science, Technology, Engineering, Math



Department of Education
GOVERNMENT OF WESTERN AUSTRALIA

WHY STEM MATTERS

STEM qualifications and skills are **essential** to Australia's productivity, innovation and success.

IN THE NEXT 15 YEARS:

- some routine manual jobs will be lost to automation
- current jobs will be transformed
- new jobs will be created.

TO BE COMPETITIVE WHEN YOU ENTER THE WORKFORCE YOU NEED:

STEM qualifications: Gaining academic and VET qualifications increases job opportunities

STEM capabilities: Curiosity, independent thinking, logical reasoning, collaboration, strong communication, creativity, problem solving, entrepreneurship and digital technology skills are highly desired and transferable.

HOW THE JOB MARKET IS CHANGING:

50% of current jobs with skill shortages are in STEM fields.

75% of all new jobs will require skills in STEM.

90% of jobs will need digital skills in the next 2 to 5 years.

IN THE NEXT 5 YEARS it is predicted that demand will rise for:

- professional, scientific and technical services: **14%**
- health care: **20%**

EMPLOYERS EXPECT THEIR NEED FOR STEM PROFESSIONALS TO INCREASE IN THE NEXT FIVE TO 10 YEARS.

University graduates: **49%**

VET graduates: **53%**

WHY YOU NEED TO ACT NOW:

One third of 15 year olds do not have the STEM skills that employers want.

58% of current students under 25 are studying for jobs that will be radically changed by automation.

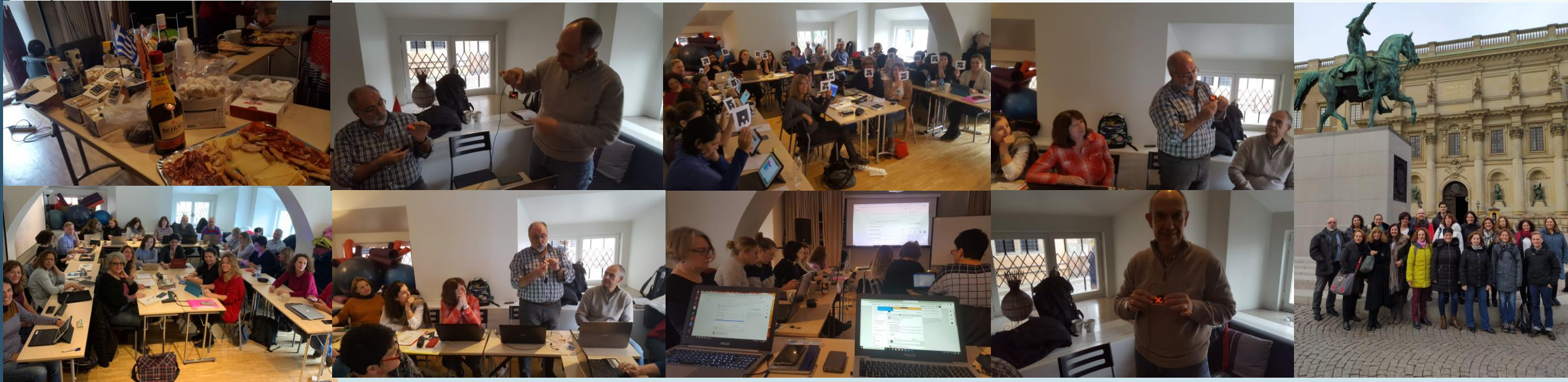
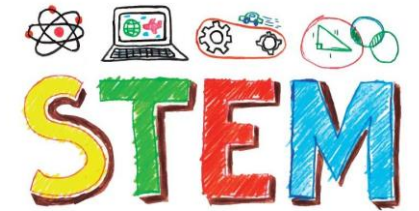
For more information visit education.wa.edu.au/STEM or talk with your course counsellor.



Source: The New Work Order: Ensuring young Australians have skills and experience for the jobs of the future, see the 2015 Foundation for Young Australians, Australia's STEM Workforce: Science, Technology, Engineering and Mathematics Skills, Office of the Chief Scientist, March 2016. The New Basics: Big data reveals the skills young people need for the new jobs, see the 2016 Foundation for Young Australians, STEM Education and the Workforce 2022, Office of the Chief Scientist, 27 February 2016. Workforce 2020: What will employment look like in 2020?, Office of the Chief Scientist.



KA101 - STEM Education: Concept Methodologies, Tools and Applications



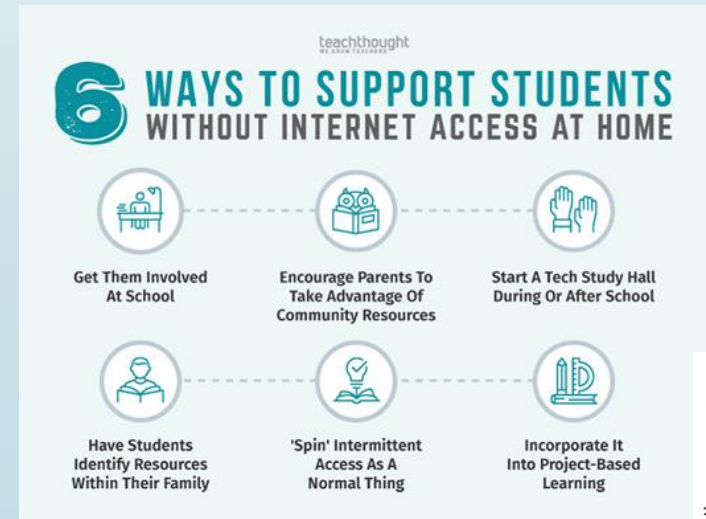
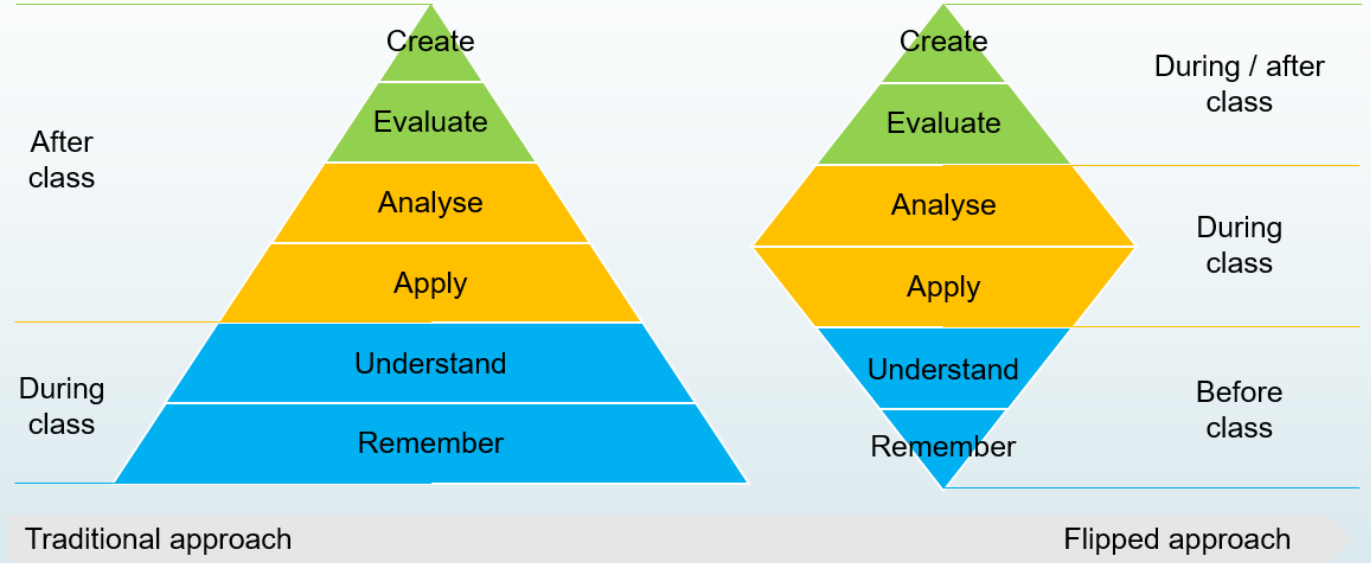
Stockholm 20-27 October 2019 - [Motivated Learning for Everyone](#)

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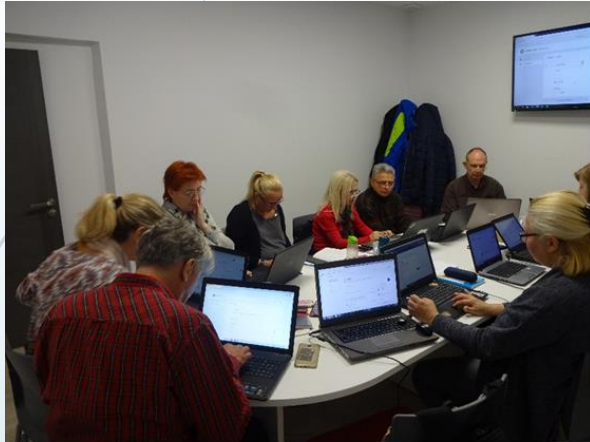
2ο Γενικό Λύκειο Καλαμαριάς



KA101 - School leadership and educational innovation



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Madrid 25-29 November 2019



Questions ?



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