Pubblicata su *Global Junior Challenge* (http://2017.gjc.it)

Paese, Città/Regione

Paese:
Estonia
Città:
Kuressaare

Organizzazione

Nome dell'ente o associazione:
Kuressaare Gymnasium
Contesto dell'ente o dell'associazione che presenta il progetto:
School
Specify:
Erasmus+

Sito Web

https://twinspace.etwinning.net/23298/home

Legge sulla privacy

Consenso al trattamento dei dati personali
Acconsenti al trattamento dei dati personali?:
Autorizzo la FMD al trattamento dei miei dati personali.

Tipo di progetto

Educazione fino ai 15 anni

Descrizione del progetto

Description Frase (max. 500 characters):

In our project we will develop new strategies and a new methodology combining maths and

science with drama, art and physical activities and create synergies between different fields of education adapting the STEM learning to what the students are really interested in.

Project Summary (max. 2000 characters):

How is possible to raise the interest for maths and science (STEM subjects) among our students?

In our project schools from Estonia, Latvia, Finland, Norway, Germany, Spain and Greece will develop new strategies and a new methodology combining maths and science with eg. drama, art and physical activities and create synergies between different fields of education adapting the STEM learning to what the students are really interested in.

In order to obtain this we have to empower our teachers. We will enable them to think new thoughts, to think out of the books and out of the box. In turn this will benefit our students. During our project we will develop new material for all to use, but equally important is the methodology behind.

We will use a new definition of the STEAM acronym in this work: S - search, T- think, E - experience, A - activ learning and M -motivation. The teachers will learn to work using this strategy / methodology which is also in line with the "21st century skills" - critical thinking, creative thinking, collaboration and communication.

Da quando è funzionante il vostro progetto?

2016-09-01 00:00:00

Obiettivi ed elementi di innovazione

We have started to learn to know the partnerschools and experienced their enthusiasm for STEM education and we see that there are "more than one road leading to Rome". We see that we have a lot to learn from each other, and the knowledge and experience of the others fit into the gaps we want to fill at our own school. The results we will get from this project would not be attained by activities carried out in just a single country.

Each school will develop a plan / curriculum for STEM education, putting together the "pieces" from their own school with the new knowledge from the others. Thus we will make something together, inspired by one another. The main part of the plan will be the same at each school. But there are differences, and not everything can be adapted as a blueprint to all schools. But the thought behind, the methodology, can be adapted in each school. There's a spin off effect here as well: Seeing how others adapt our ideas can bring new ideas to the origin school.

At the level of curricula, teaching methods and student assessment, the TWG (above) emphasizes the need to teach science appreciation and science in context. This is what we do in our project. Through our new methodology we put away the "classical" way of teaching each subject as such, often telling the facts and giving the students the answers before they

want to know or see the "problem". To many students this is boring as they often are active and curious youngsters. Our interpretation of "in context" is to see STEM subjects in connection with other subjects and different approaches by giving the students the opportunity to explore and find out for themselves in stead of being told the answers to questions they have not asked.

STEM subjects are all around, banded together to other subjects and other approaches, they are not just some theoretical "stuff" found in a book. This is a student active approach, but under the surveillance of the teacher, motivating and inspiring the students with the new knowledge from colleagues from all over Europe. Even more motivating for the students is the fact that students in six other schools all over Europe are working with the same issues. During the project they will have the possibility to exchange their experiences and results by talking to one another and working together on the net.

Our new knowledge will benefit our students, and they will also work / study according to our new definition of the STEAM acronym. In turn the teachers at our neighbouring schools will benefit from our project and teachers looking for inspiration on our web site, and their students.

Examples of instruments: Workshop with Edison robots [1]; Workshop: Online realtime collaboration tools [2]; outdoor learning [3]

Risultati

Describe the results achieved by your project How do you measure (parameters) these. (max. 2000 characters):
To many students think that STEM education can be theoretical and difficult to approach. Our project will approach STEM education in a new way. Instead of teaching each subject as such, we will emphasize methods and ways of teaching that students already have a positive and pleasurable relationship to. On our project webpage (https://twinspace.etwinning.net/23298/pages/page/195495; https://twinspace.etwinning.net/23298/pages/page/202456) we share our best practices and learning materials. We have made a questionnaire among students and teachers to measure their attitudes towards learning and teaching methods. At the end of the project we'll repeat the questionnaire to compare results.
How many users interact with your project monthly and what are the preferred forms of interaction? (max. 500 characters):

In all partnerschools aprox 50 (300 total) students are involved into project. We have online conferences and discussions, also simultaneous online projects and competitions.

Sostenibilità

What is the full duration of your project (from beginning to end)?:
Da 1 a 3 anni
What is the approximate total budget for your project (in Euro)?:
Da 30.001 a 75.000 Euro
What is the source of funding for your project?:
Finanziamenti pubblici o privati

Il progetto è economicamente autosufficiente?:
Sì
Since when?:
2017-09-01 00:00:00

Trasferibilità

Has your project been replicated/adapted elsewhere?:
Sì
Where? By whom?:
Partner schools have shared the experiences among their local community
What lessons can others learn from your project? (max. 1500 characters):

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Are you available to help others to start or work on similar projects?:
Sì

Informazioni aggiuntive

Barriers and Solutions (max. 1000 characters):
In our project the different activities and the outcomes of these, build on each other, like a chain reaction. Their newly acquired expertise is an important result. This will spread like rings in the water when the teachers come home and educate and inspire their colleagues. One of the main problems was how to involve all school staff into project
Future plans and wish list (max. 750 characters):
From the workshops the teachers bring with them teaching material, showing how to use this new methodology in practise. We will have an online STEM curriculum bank with all the material produced. This will be open for all to use. Each of the participating schools will choose and pick from this bank, making their own, local STEM curriculum, which will grow during, and also after, the project. The ideas the teachers bring home will also be used to make new material which will be added to the STEM curriculum bank. Material produced after the workshops will be shared with the others. Our STEM curriculum is step two.
Allegati:
Flipped learning [4]
Active learning - from student to student [5]
Robots are interesting! [6]
STEM; outdoor education: Robotics [7]

del 26/04/2007.
Privacy Policy

URL di origine: http://2017.gjc.it/it/progetti/full-steam-ahead-better-education

Collegamenti
[1] https://twinspace.etwinning.net/23298/pages/page/249034
[2] https://twinspace.etwinning.net/23298/pages/page/251920
[3] https://twinspace.etwinning.net/23298/pages/page/142324
[4] http://2017.gjc.it/sites/default/files/robotics.jpg
[5] http://2017.gjc.it/sites/default/files/activelearning.jpg
[6] http://2017.gjc.it/sites/default/files/robot2.jpg
[7] http://2017.gjc.it/it/keywords-separate-commas/stem-outdoor-education-robotics