



GE STEAM

Brochure 2020-2022

Erasmus+

Strategic Partnerships for School Education

Gender Equality in Science, Technology,
Engineering, Art and Mathematics

2020-1-R001-KA201-080189

PROJECT DESCRIPTION

The promotion of gender equality in and through education is a prerequisite to the achievement of equality between women and men in all spheres of life in society. The Council of Europe has promoted gender equality and non-stereotyped education at all levels. By shaping gender representations, attitudes and behaviours, early education is an essential factor to combat stereotypes and bring about social and cultural changes. Gender mainstreaming will play an active part in implementing awareness-raising and training on gender equality.

Policymakers and educators worldwide should not underestimate the importance of early childhood education on the development of deeply engrained gender norms. It is important to consider the cognitive and affective formation of gender identity which develops in early childhood. The types of skills, personality attributes, and career aspirations learned through teacher-child interactions and childhood play can form stereotypical masculine and feminine attitudes toward gender roles, which develop before adolescence. By associating gender equality and STEAM focused on pre-school, primary and junior secondary education the project addresses the under-representation of girls in STE(A)M (Science, Technology, Arts, Engineering and Mathematics) who will be the future women in STE(A)M careers.

Coordinated by a public body Teaching Staff Training and Research Centre the project gathered a varied pool of organisations: Schools - **First Private School "Leonardo DaVinci" – Bulgaria** (FPSLD BG), a language and training school in the countryside - **Professional Foundation, Romania** (ProF –RO) and two Training Centres with a long experience and expertise in project's implementation, one located in the countryside, a private company working in the field of vocational training, youth & adult education, e-learning, digital media and social inclusion - **Future in Perspective Limited – Ireland** (FIP - IR) and **Academia Postal 3 SL Vigo, Spain** (Postal3-ES) an entity dedicated to the training, design, and development of training resources, and project consulting, whose services to public and private organizations in Spain, Europe and America have achieved remarkable success and growth over the past two decades.



PROJECT OBJECTIVES

This project is concerned with gender equality in pre-school, primary and lower secondary education and aims at contributing to increased capabilities to reduce stereotypes by developing a series of innovative and interactive materials, tested through a behavioural science lens for their potential to increase equality by amendment of practical everyday skills and social norms regarding attitudes and stereotypes, especially in STEAM and in what concerns teachers and youngsters.

By concluding this project, participants will be able to (Learning Objectives - using Bloom's Taxonomy action verbs):

- Define unconscious biases and gender stereotypes in pre-school, primary and secondary STEAM education by raising awareness of target groups;
- Support pre-school, primary and lower-secondary school teachers by providing them training, materials to deal with diversity and gender-balance in their classrooms (e. g. helping them to design suitable education programmes, organise hands-on activity, promoting Equality in STEAM and mentoring) and then engage more girls in STEAM education;
- Create a friendly ECOSYSTEM in class where girls in early education will feel appreciated and motivated to participate in STEAM activities as equals both in number and in terms of responsibilities.

The methodology used is that based on a behavioural sciences methodological framework. According to current reports, we can fully act on this age range to engage more girls in STEAM education. Behavioural Insight is a process that looks at Behaviours, Analysis, Strategies, Interventions, Change (BASIC). This approach allows the project partners to get to the root of the problem (gender stereotyping and bias), gather evidence on what works, show support for innovation, and ultimately improve the situation. The testing will involve 75 teachers; Peer-mentoring 40 mentors and 40 mentees; 30 Business Mentors and 1124 children/pupils. The evaluation of the actual impact on teachers, decision makers and pupils should be done by discouraging a specific behaviour towards gender balance especially in STEAM subjects. Before-after self-assessment questionnaires, using the exact same target group can show us the amount of change in their behaviour.



EXPECTED RESULTS

By concluding this project, participants will be able to:

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- Support pre-school, primary and lower-secondary school teachers by providing them training, materials to deal with diversity and gender-balance in their classrooms (e.g. helping them to design suitable education programmes, organise hands-on activity, promoting Equality in STEAM and mentoring) and then engage more girls in STEAM education;
- Create a friendly ECOSYSTEM in class where girls in early education will feel appreciated and motivated to participate in STEAM activities as equals both in number and in terms of responsibilities.

TARGET GROUP

The project targets 3 groups:

- Early education professionals;
- Head of teachers, school directors, representatives of regional/national and EU authorities, decision-makers, STEAM women;
- Children of 5+ - 12, the final beneficiary of project results.

MULTIPLIER EVENTS

4 multiplier events for the promotion and dissemination of intellectual outputs and project results.

OUTPUTS

Five outputs will be produced:

1. IO1 Training Programme for De-constructing Gender Stereotypes in STEAM (in all partners' languages) for teachers (Behavioural levers) - leader ProF - RO;
2. IO2 Repository for Teachers on "Assistant Platform", leader FIP - IR;
3. IO3 Introducing ART in STEM - Guidelines for Teachers and Kit-hands-on self-teach activities for children, leader FDSL D - BG;
4. IO4 Peer Mentoring and Business Mentoring Schemes, leader Postal3 - ES;
5. IO5 Adaptation, Translation and Testing/Piloting the GE-STEAM Training Programme accompanied by Assistant Platform (E-Book in 4 languages) – leader CCD Mureş – RO (not funded).



IMPACT

The project is expected to have an overall positive impact at a **local, regional, national** and **European** level.

At a local level it is expected to bring:

- An improvement of the image of STEAM education for a wider audience especially towards female learners;
- An increasing number of teachers aware of gender stereotypes;
- An increasing number of gender-balanced education programmes;
- An enriching of teachers curricula and extracurricular activities.

At a regional/national level it is expected:

- Greater visibility of STEAM education;
- An increasing number of STEAM specialists who are now difficult to recruit;
- A better gender balance in the STEAM job market (in the long term);
- A wider discussion & debate about digital skills and inclusion, especially taking into consideration gender in education.

At a European level it is expected:

- To strengthen the school staff community working together at European level to reduce the gender gap in STEAM education;
- To strengthen the network of organizations dealing with education gender issues;
- Promote STEAM careers & opportunities to women, therefore contributing to reduce the skill gap and the thousands of jobs not filled in the European economy;
- Widespread use of the project's outcomes by other organisations in the implementation of similar activities through follow-up activities (e. g. upper-secondary Education);
- Broader awareness around the topic of diversity, inclusivity, and equality in the digital world;
- An improvement in the offer of teaching curricula.

SUSTAINABILITY

The sustainability of the project results will be based on the strategy that the partners will follow for the exploitation of the project results, which will be in turn determined by their business models. Partners will allocate the necessary resources at their own expense to exploit the project's results mainly through two ways:

- Include the gender balance in their organisations' rules;
- Include the Training Programme in the partners own portfolio (in the case of training providers);
- Establish agreements with other institutions that provide the training so as to deliver it to the target groups: each partner will contact and sign an agreement with at least two national institutions for adopting or promoting the TP and the platform;
- The CCD coordinator will cooperate with their sister CCDs in order to facilitate the inclusion of the TP into their offer to teachers of more counties.

Follow the project!

Website: <http://gesteamproject.eu>

Youtube: https://www.youtube.com/channel/UCbUzid74cQqs-bQ9cU1uF7A@ge_steam

Facebook: <https://www.facebook.com/GE-STEAM-105432678211682>





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