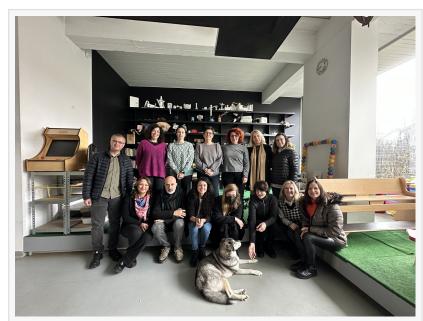# Revolutionising STEM Education with Innovative Digital Tools and Gamification

The JUGAAD Erasmus+ Project aims to transform STEM education. It is focused on utilising gamification, digital resources, and competency-based frameworks.

LETTERKENNY, DONEGAL, IRELAND, November 30, 2024 / EINPresswire.com/ -- Empowering Educators and Students
The JUGAAD Project bridges the gap between traditional education and the digital future by offering ready-to-implement STEM workshops and assessment tools aligned with the European Framework for Digital Competence (DigComp).

Partners in Belgium

Key outputs developed by the project partners:

Education Toolkit
This toolkit is designed for remote and face-to-face implementation. It is a collection of 15 STEM-based workshops that educators can use in STEM clubs or the classroom. Each workshop will ensure:
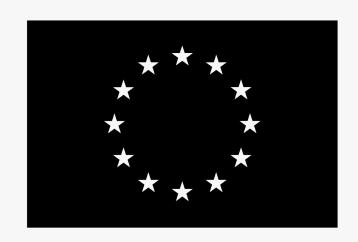
The development of skills related to the STEM approach (inter- and trans-disciplinarity, problem-solving, inquiry-based approach) for facilitators and students.
The development of specific digital skills for facilitators aligned with the JUGAAD competency framework
The development of curricular skills in disciplines related to the STEAM approach.

The workshops are divided into four themes and difficulty levels, ranging from novice to highly advanced.

Assessment Toolkit

One of the main objectives of the JUGAAD project is to define the different skills, competencies, and knowledge gained by implementing the Education Toolkit. Thus, AISR developed a competence framework for both educators and students. It builds upon the partner countries' STEAM curricula and the digital skills outlined in the European Framework for the Digital Competence of Educators (DigCompEdu) and Digital Competence (DigComp 2.2) frameworks. The Educator's Framework provides guidance on curriculum design, classroom management, assessment strategies, and technology integration in education. It emphasises the importance of fostering inclusive and diverse learning environments, enabling educators to meet the unique needs of their students. This Framework is a roadmap for success in the JUGAAD workshops at various proficiency levels. It promotes the growth of critical STEAM skills in a structured, measurable manner, aiding educators and students in achieving their objectives. After implementing the JUGAAD workshops (Toolkit), educators will be asked to complete the post-workshop delivery assessment questionnaire to measure the improvement in their competency level.

Co-funded by the European Union

Erasmus+ logo co funded

Project logo JUGAAD

The JUGAAD benchmarking self-assessment tool helps educators reflect on their teaching competencies, STEAM strategies and how they use digital technologies in their professional practice. Educators can use the tool to make informed decisions, implement effective strategies and be honest with themselves about what is working in the classroom. Making an effort to conduct self-assessments also demonstrates an educator's willingness to improve, commitment to pursuing teaching excellence, and desire to achieve professional growth.

E-Platform

An interactive online platform featuring fun quizzes, a badging system, and resources for

students and educators to enhance STEM education.

Focus on Diversity and Inclusion
The project emphasises the importance of inclusive education, ensuring all students can access quality STEM learning experiences regardless of their background. By fostering diverse learning environments, JUGAAD aligns with European educational goals for equity and innovation.

Next Steps
With freely available resources, the JUGAAD Project continues to inspire educators and students to embrace digital tools and gamified learning.

For more information, visit https://jugaadproject.eu/

Project partners:
ASSOCIAZIONE LUMEN APS, Italy
iED - Institute of Entrepreneurship Development, Greece
eduCentrum, Belgium
European center of entrepreneurship competence & excellence, Austria
SXOLI KARAVANA, Greece
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