

EntreComp & STEM
framework APPs

Objective



DTICEQT is an Erasmus + K

Objective: Development of two mobile apps that help teachers and anyone engaged in STEM education

Apps details

Main access: **Web**

<https://www.schools21cproject.eu/stem>

<https://www.schools21cproject.eu/entrecomp>

Installable from the web browser, no app store needed.

Both apps can be installed in multiple systems: Android, Windows, Linux, macOS ...



EntreComp App

A tool for teacher self-evaluation

EMAIL

PASSWORD

[Click to remember password](#)

Login

Create account



STEM FRAMEWORK

Self-evaluation tool for teachers

EMAIL

PASSWORD

[Click to remember password](#)

Login

Create account

EntreComp Framework App

<https://schools21cproject.eu/entrecomp>

EntreComp App was created as a tool to allow users to create self-evaluations based on **The European Entrepreneurship Competence Framework**.

← What is EntreComp? 🏠

The European Entrepreneurship Competence Framework

EntreComp is a framework of 15 entrepreneurship competences, broken down further into threads that describe what the particular competence really means in practical terms. These are clearly defined through learning outcomes – what a learner knows, understands and can do.

EntreComp identifies 3 competence areas:
IDEAS & OPPORTUNITIES
RESOURCES
INTO ACTION



[More info](#)

Ideas & Opportunities

1.1 Spotting opportunities

← What is EntreComp? 🏠

1.5 Ethical and sustainable thinking

Assess the consequences & impact of ideas, opportunities and actions

Resources

- 2.1 Self-awareness & self-efficacy**
Believe in yourself and keep developing
- 2.2 Motivation & perseverance**
Stay focused and don't give up
- 2.3 Mobilising resources**
Gather and manage the **resources** you need
- 2.4 Financial & economic literacy**
Develop financial and economic know-how
- 2.5 Mobilising others**
Inspire, enthuse and get others on board

Into action

- 2.1 Self-awareness & self-efficacy**
Believe in yourself and keep developing
- 2.2 Motivation & perseverance**
Stay focused and don't give up
- 2.3 Mobilising resources**
Gather and manage the resources you need
- 2.4 Working with others**
Team up, collaborate and network
- 2.5 Learning through experience**
Learn by doing

EntreComp Framework App

The App will guide the users through the 15 competences of the framework, helping them to measure their competences in entrepreneurship.

The user can select 3 different Skill Levels for each competence: Basic, Intermediate and Advanced.

 Your skills 

1/15

SPOTTING OPPORTUNITIES

"I'm able to Identify and seize opportunities to create value by exploring the social, cultural and economic landscape & Identify needs and challenges that need to be met by establish new connections and bring together scattered elements of the landscape to create opportunities to create value?"

☐ BASIC

☒ INTERMEDIATE

☐ ADVANCED

SAVE AND EXIT

 Your skills 

6/15

SELF-AWARENESS & SELF-EFFICACY

"I'm able to reflect on your needs, aspirations and wants in the short, medium and long term, Identify and assess you, as individual individual and group strengths and weaknesses , taking in account your ability to influence the course of events, despite uncertainty, setbacks and temporary failures"

☐ BASIC

☒ INTERMEDIATE

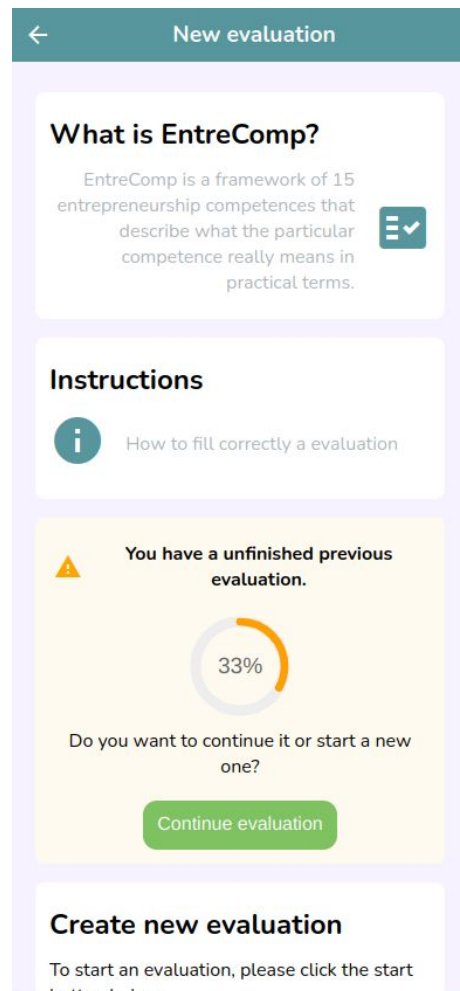
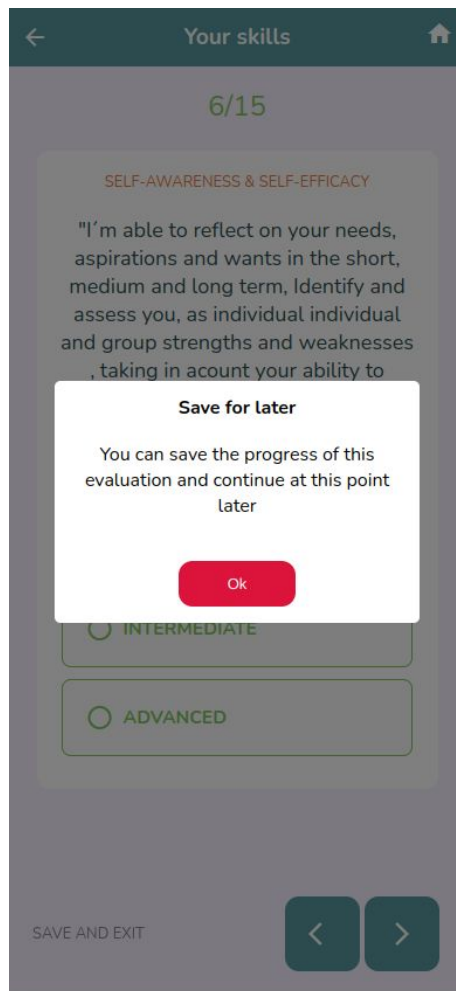
☐ ADVANCED

SAVE AND EXIT

EntreComp Framework App

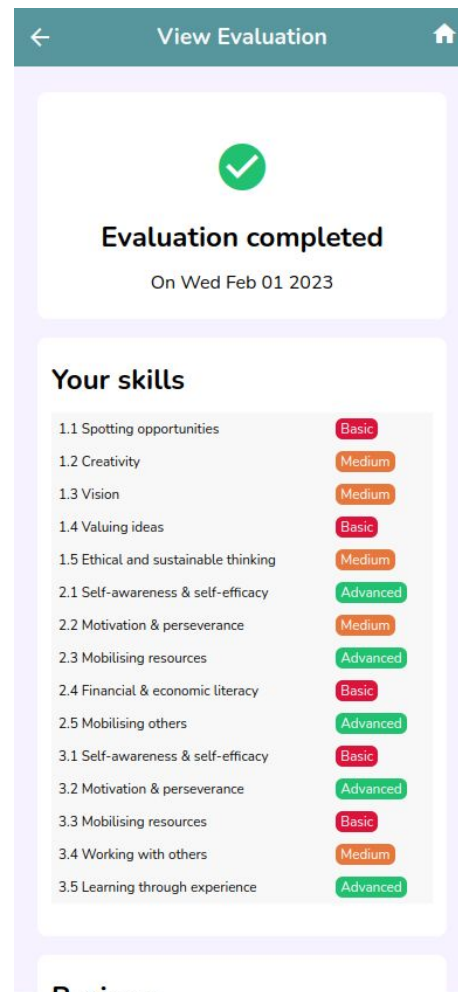
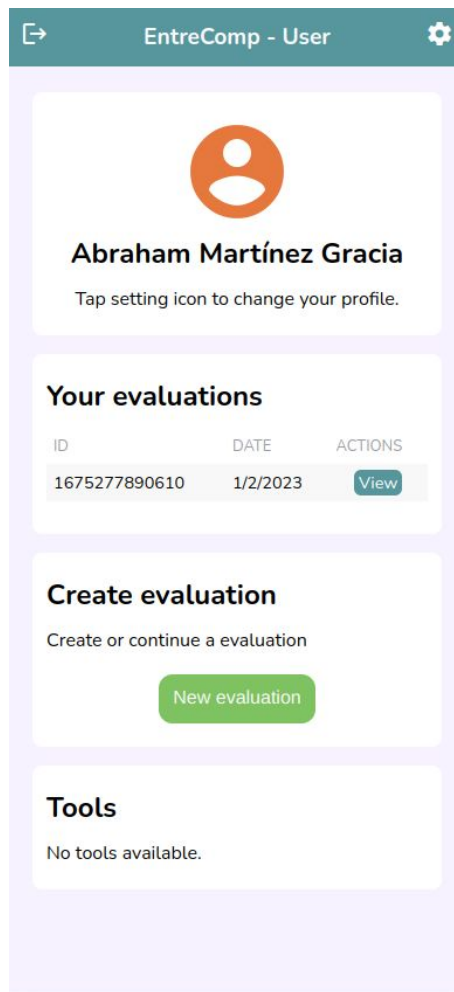
The app will let the user to save the evaluation progress at any time and continue the incomplete observations later.



EntreComp Framework App

Once the user finish the evaluation it will be saved in his/her profile to review at any time.

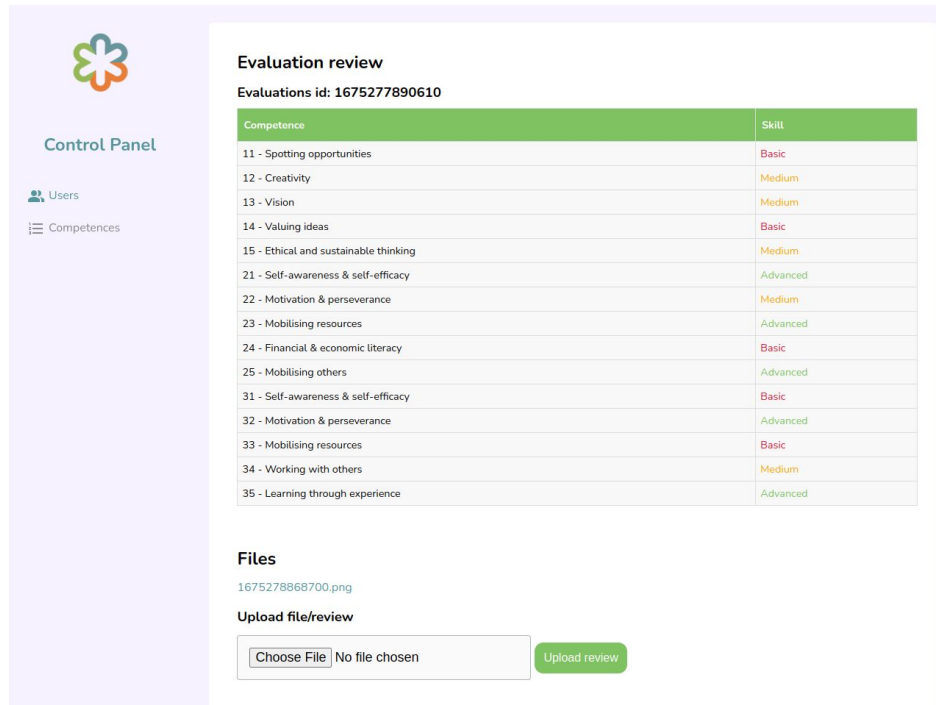
User can see here the skills for any of the 15 framework competences.



EntreComp Framework App

The evaluation is also saved in the cloud in a private Control Panel that allow the reviewers (usually teachers of teachers) to view the user skills.

Reviewers can attach multiple resources to the evaluation that can help the user to improve her/his knowledge in different competences.



The screenshot displays the 'Control Panel' of the EntreComp Framework App. On the left, a sidebar contains a logo (a stylized flower) and navigation links for 'Users' and 'Competences'. The main area is titled 'Evaluation review' and shows 'Evaluations id: 1675277890610'. It features a table with two columns: 'Competence' and 'Skill'. The table lists 15 competences with their corresponding skill levels. Below the table, there is a 'Files' section showing a file named '1675277890610.png' and an 'Upload file/review' button. A 'Choose File' button is also visible, indicating no file is currently chosen.

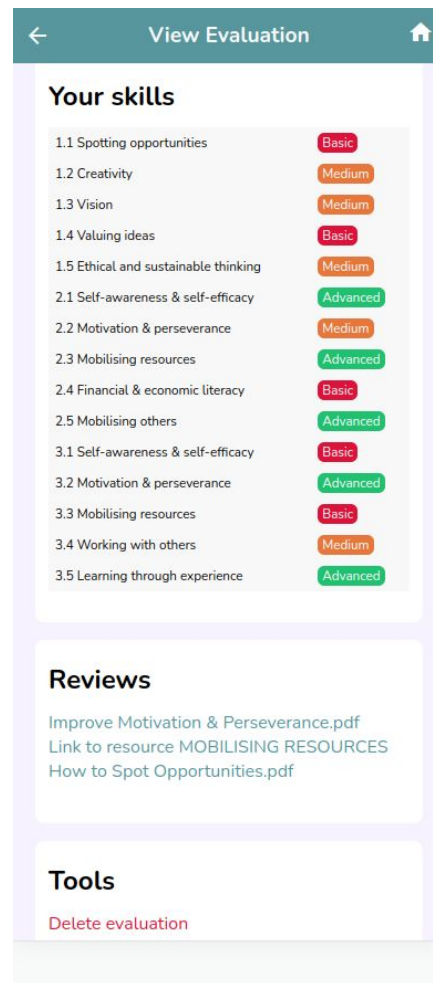
Competence	Skill
11 - Spotting opportunities	Basic
12 - Creativity	Medium
13 - Vision	Medium
14 - Valuing ideas	Basic
15 - Ethical and sustainable thinking	Medium
21 - Self-awareness & self-efficacy	Advanced
22 - Motivation & perseverance	Medium
23 - Mobilising resources	Advanced
24 - Financial & economic literacy	Basic
25 - Mobilising others	Advanced
31 - Self-awareness & self-efficacy	Basic
32 - Motivation & perseverance	Advanced
33 - Mobilising resources	Basic
34 - Working with others	Medium
35 - Learning through experience	Advanced

Files
1675277890610.png

Upload file/review
Choose File | No file chosen | Upload review

EntreComp Framework App

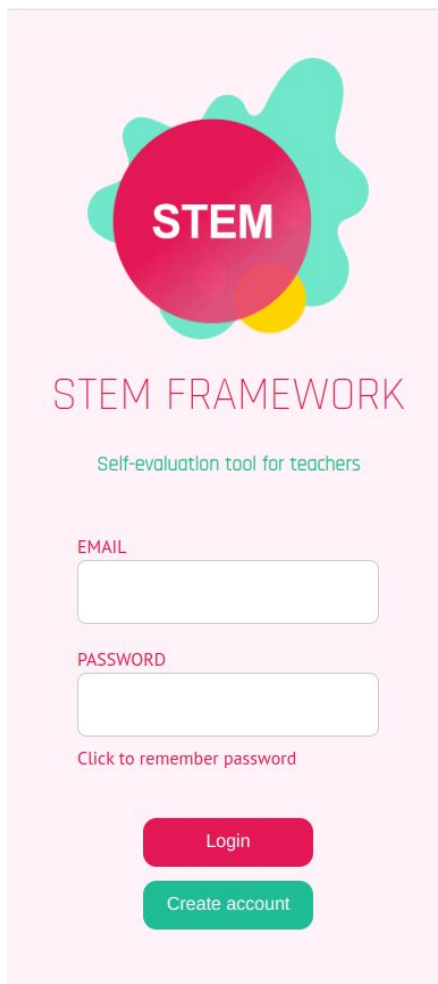
Those resources will appear in the user's evaluation page in the mobile app.



STEM Framework App

<https://schools21cproject.eu/stem>

The STEM App works in a very similar way, allowing the users to self-evaluate their skills in the 26 competences of **The Global STEM Alliance (GSA) STEM Education Framework**



The login screen features a pink background. At the top center is a logo consisting of a red circle with the word 'STEM' in white, surrounded by teal and yellow abstract shapes. Below the logo, the text 'STEM FRAMEWORK' is displayed in pink, followed by 'Self-evaluation tool for teachers' in teal. The login form includes an 'EMAIL' label in pink above a white input field, a 'PASSWORD' label in pink above another white input field, and a 'Click to remember password' link in pink. At the bottom are two buttons: a red 'Login' button and a teal 'Create account' button.

STEM

STEM FRAMEWORK

Self-evaluation tool for teachers

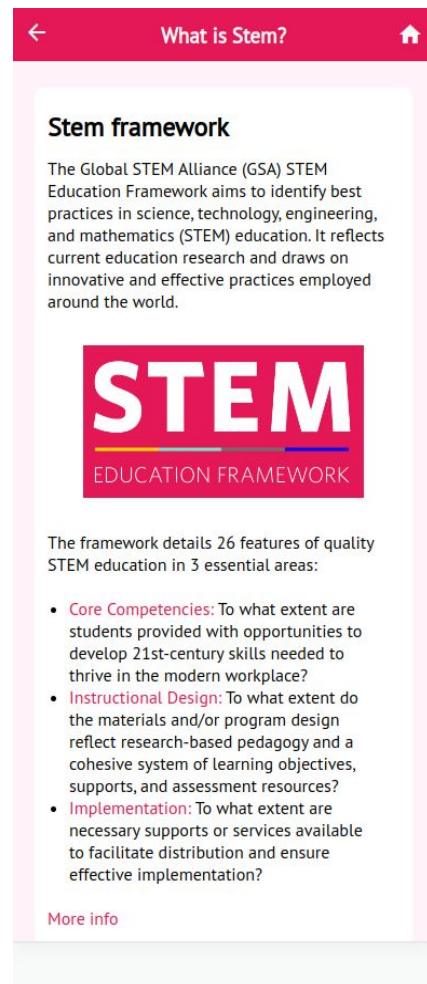
EMAIL

PASSWORD

[Click to remember password](#)

Login

Create account



The 'What is Stem?' screen has a pink header with a back arrow, the title 'What is Stem?', and a home icon. The main content area is white. It starts with the title 'Stem framework' in bold. Below it is a paragraph about the Global STEM Alliance (GSA) STEM Education Framework. This is followed by a red box containing the text 'STEM' in large white letters and 'EDUCATION FRAMEWORK' in smaller white letters below it. Another paragraph follows, stating the framework details 26 features of quality STEM education in 3 essential areas. A bulleted list follows, detailing 'Core Competencies', 'Instructional Design', and 'Implementation'. At the bottom is a 'More info' link in pink.

← What is Stem? 🏠

Stem framework

The Global STEM Alliance (GSA) STEM Education Framework aims to identify best practices in science, technology, engineering, and mathematics (STEM) education. It reflects current education research and draws on innovative and effective practices employed around the world.

STEM
EDUCATION FRAMEWORK

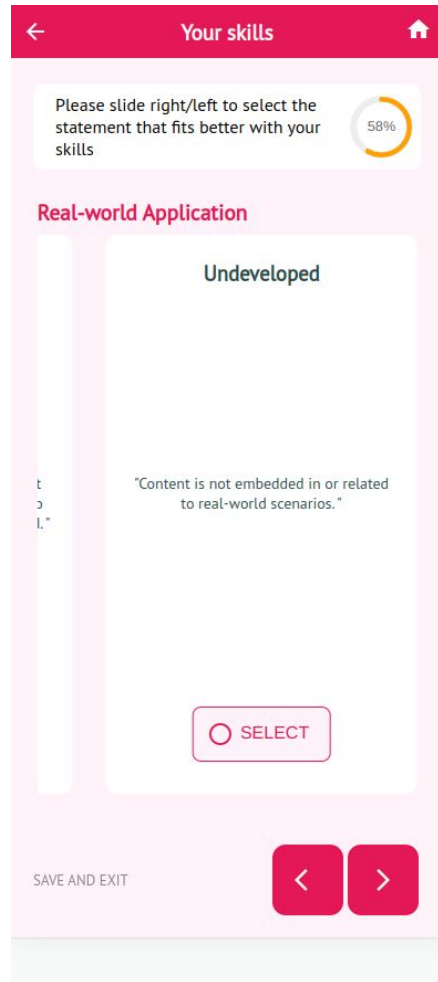
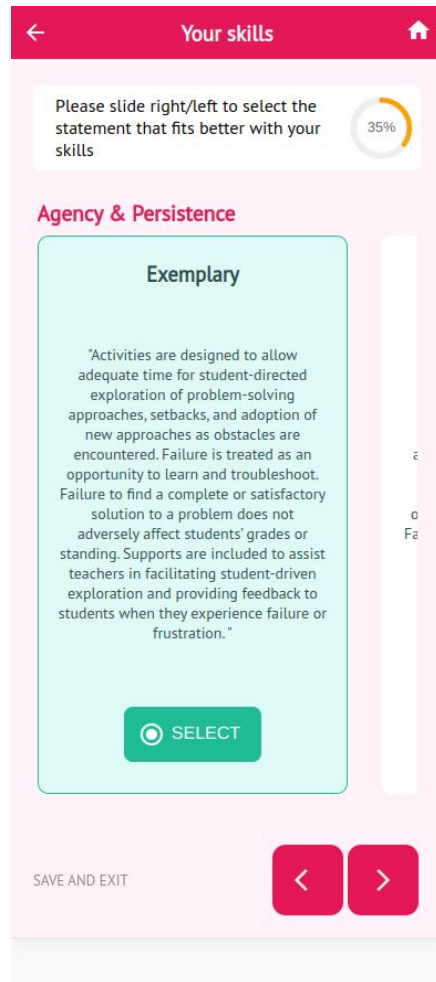
The framework details 26 features of quality STEM education in 3 essential areas:

- **Core Competencies:** To what extent are students provided with opportunities to develop 21st-century skills needed to thrive in the modern workplace?
- **Instructional Design:** To what extent do the materials and/or program design reflect research-based pedagogy and a cohesive system of learning objectives, supports, and assessment resources?
- **Implementation:** To what extent are necessary supports or services available to facilitate distribution and ensure effective implementation?

[More info](#)

STEM Framework App

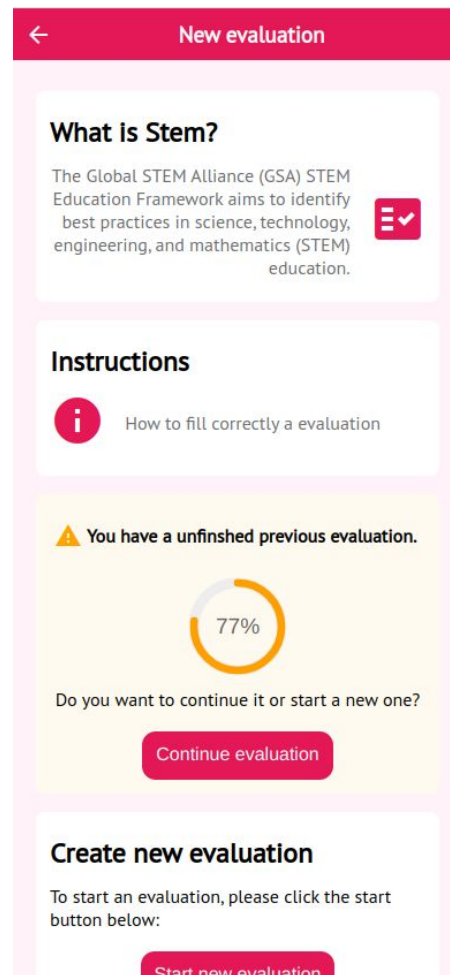
The users can browse all the competences in the framework and select the skill they have for that competence, choosing between Exemplary, Developing, Basic or Undeveloped.



STEM Framework App

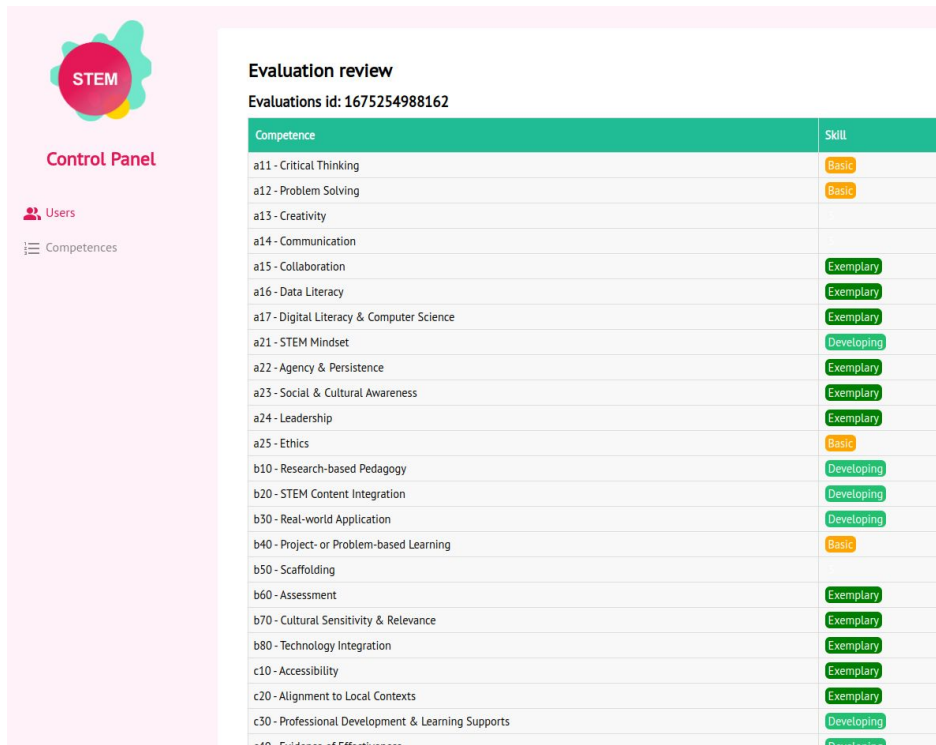
As in the previous app, the users can save the progress at any time and continue with the evaluation later on.

Users can create multiple evaluations, but only one at a time.



STEM Framework App

The reviewers can also view all the evaluations from a private **Control Panel** and send resources to help the users to improve their skills.



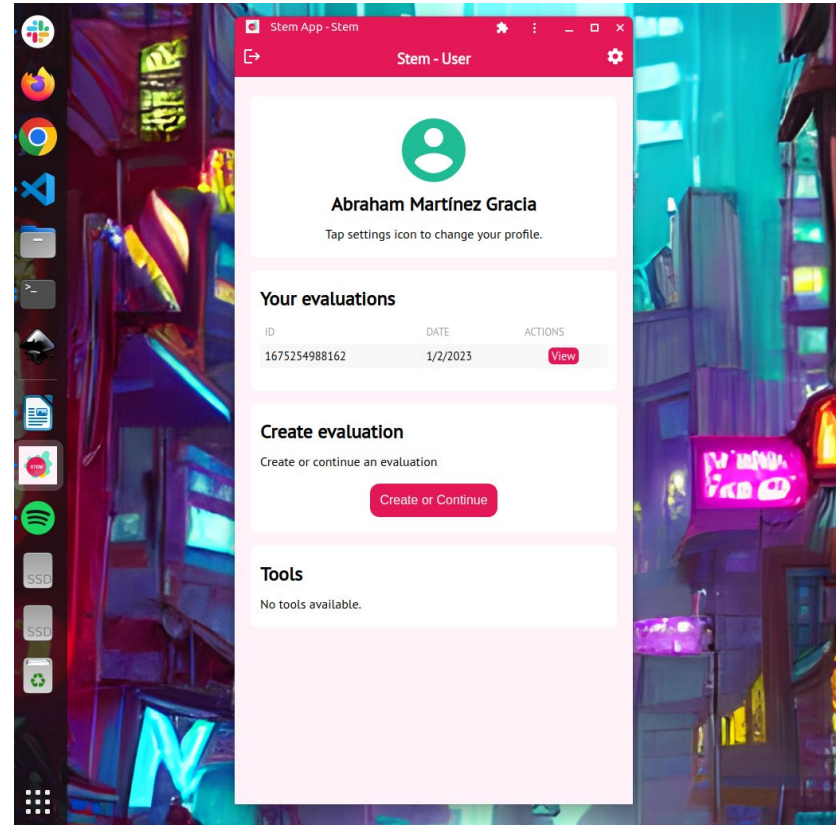
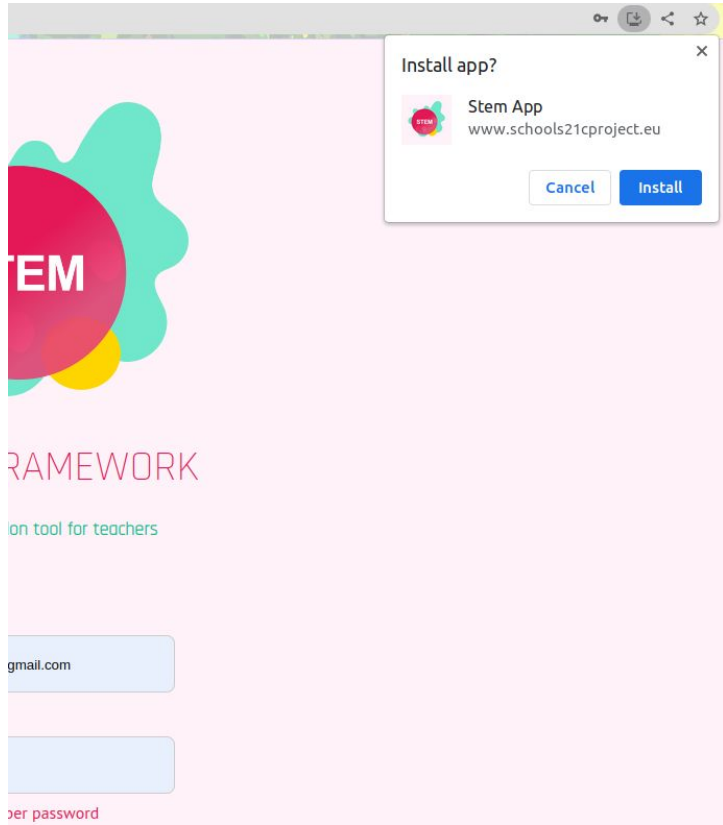
The screenshot shows the 'Control Panel' of the STEM Framework App. On the left is a sidebar with a 'STEM' logo and navigation options for 'Users' and 'Competences'. The main area is titled 'Evaluation review' and shows a table of evaluations with a unique ID. The table has two columns: 'Competence' and 'Skill'. Each row lists a specific competence and its corresponding skill level, which is indicated by a colored label: 'Basic' (orange), 'Developing' (green), or 'Exemplary' (dark green).

Competence	Skill
a11 - Critical Thinking	Basic
a12 - Problem Solving	Basic
a13 - Creativity	
a14 - Communication	
a15 - Collaboration	Exemplary
a16 - Data Literacy	Exemplary
a17 - Digital Literacy & Computer Science	Exemplary
a21 - STEM Mindset	Developing
a22 - Agency & Persistence	Exemplary
a23 - Social & Cultural Awareness	Exemplary
a24 - Leadership	Exemplary
a25 - Ethics	Basic
b10 - Research-based Pedagogy	Developing
b20 - STEM Content Integration	Developing
b30 - Real-world Application	Developing
b40 - Project- or Problem-based Learning	Basic
b50 - Scaffolding	
b60 - Assessment	Exemplary
b70 - Cultural Sensitivity & Relevance	Exemplary
b80 - Technology Integration	Exemplary
c10 - Accessibility	Exemplary
c20 - Alignment to Local Contexts	Exemplary
c30 - Professional Development & Learning Supports	Developing
c40 - Evidence of Effectiveness	Developing

Under the hood

1. Created with **web technologies**
 - a. Easy to update and maintain
2. Can run **in the browser**
3. **Can be installed** in multiple devices for a better experience





Installed on Desktop Computer Windows/Mac/Linux

schools21cproject.eu/stem/continue_steps/1675363595406

Your skills

Please slide right/left to select the statement that fits better with your skills

4%

Critical Thinking

Exemplary

"Students have opportunities to evaluate multiple sources of information, evidence, and primary material; select appropriate material to support arguments; critique the work of others; and differentiate evidence from inference and opinion. Activities include the use of scientific procedures to test students' hypotheses. Students are supported and have opportunities to apply one or more perspectives to reason about problems, experimental procedures, and phenomena (e.g., computational, systems, or design thinking) when developing arguments, critiques, or hypotheses. Supports are provided to facilitate teacher and student discussion and reasoning when evaluating sources and critiquing each other's work."

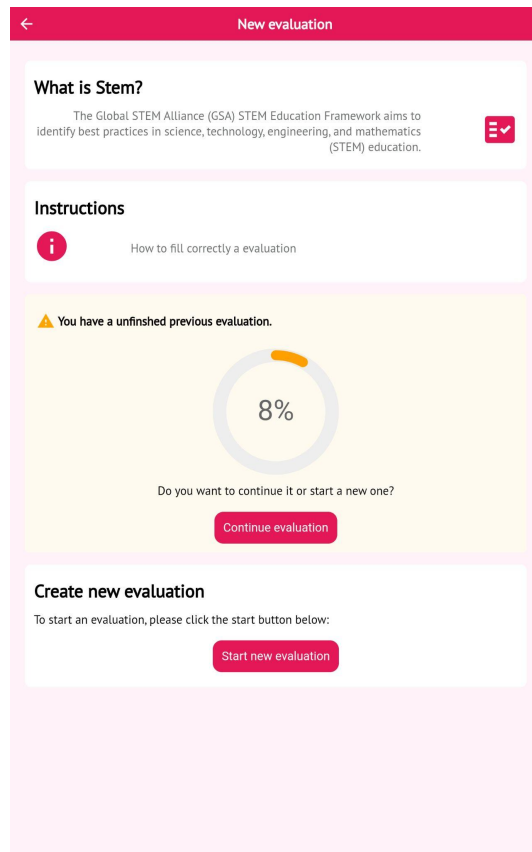
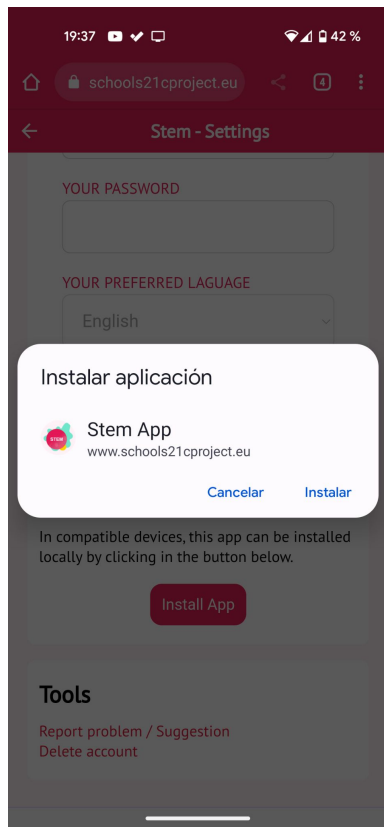
SELECT

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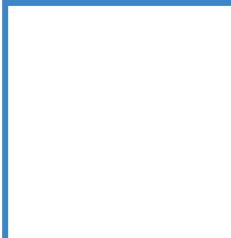
SAVE AND EXIT

< >

Working in a web browser



Installed in phone / iPad



That's all
Comments?
Questions?

