

# Intellectual Output 2

## A4: Validation exercises

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HEARTHANDS SOLUTIONS

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## REVISION HISTORY

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(\*) Action: C = Creation, I = Insert, U = Update, R = Replace, D = Delete

## REFERENCED DOCUMENTS

ID	Reference	Title
1	2020-1-UK01-KA201-078934	IPinSTEAM Proposal
2		

## APPLICABLE DOCUMENTS

ID	Reference	Title
1		
2		

## Contents

1. IPinSTEAM project .....	4
1.1 The context.....	4
1.2 Objectives .....	4
1.3 Target groups .....	4
2. National report .....	5
2.1 Objectives .....	5
2.2 Questionnaire for teachers .....	6
2.3 Questionnaire for students.....	7
3. Conclusions.....	8
3.1 Conclusions for teachers .....	8
3.2 Conclusions for students .....	9

# 1. IPinSTEAM project

## 1.1 The context

On the point of creativity and innovation being the roots of European cultural and socio-economic growth, respecting others' work becomes a far-reaching need both for professional and personal development of individuals (EUIPO, 2017). On the other hand, nowadays that online sharing of information is rife, one cannot help but wonder whether people are aware of proper ways to attribute others' ideas along with the necessity to reap the benefits of intellectual potential given the fact that most innovations are now highly related to technology.

Au contraire, the absence of Intellectual Property (IP) protection of educational materials and innovations – with online learning only deteriorating the situation – reveals a significant problem in many European countries. In fact, while uncontrolled access is given to educational resources across the Web, the majority of learners are not aware if IP is implemented in their work as well as ways to protect their own intellectual property (Evans, 2016).

On the grounds that STEAM comprises continuous innovation, invention, discovery and understanding of technical knowledge that lead to (commercial) products, the protection of inventions becomes more and more complex (National Inventor Hall of Fame, 2019). Conceivably, this reveals the rationale behind the lack of IP in school education. In particular, recent research has depicted the knowledge and implementation gaps related to IP, resulting in lack of knowledge about working definitions of IP in the field of Arts. In conjunction with the fact that most European countries are not in position to capture the relevance of IP in STEM, the need to integrate IP in STEAM curricula becomes even more significant (Office for Harmonization in the Internal Market, 2015).

## 1.2 Objectives

In order to address the lack of IP knowledge resulting in an inefficient implementation of IP in the world of inventions, the **IPinSTEAM project** aims at promoting IP strategies in schools and more specifically in STEAM education under the prism of confronting this issue from its roots. To generate awareness about Intellectual Property across European educational institutions, the project will develop an innovative ICT-enabled training package focused on the needs of K-12 STEAM teachers.

Towards that purpose, the project will develop and validate training materials tailored to the real needs of school teachers, educational institutions and STEAM departments towards giving shape to the integration of IP concepts into STEAM curricula.

## 1.3 Target groups

The **direct target group** of the project involves STEAM teachers, mainly primary school and lower secondary school teachers (ages up to 12). They will learn the key concepts of Intellectual Property along with useful information and guidelines about ways to efficiently implement IP strategies in STEAM-related subjects and integrate them into their curricula. By all means, all school STEAM departments can be regarded as direct target group of the project.

The **indirect target audience** of the project comprises:

- Students up to 12 years old
- Schools and educational institutions teaching STEAM-related subjects
- Law schools and departments
- Policy makers responsible for the design and implementation of actions relevant to ICT strategies for educational purposes
- Other institutions or organizations that are active in school education
- Authorities or organizations that can organize specific actions in order to contribute to the development of high-quality education
- Networks, voluntary associations and other NGOs that are active in school education
- Research communities active in the broader field of lifelong learning.

## 2. National report

### 2.1 Objectives

The objective of the present report is to present the results of the validation activities performed with representatives of the target group at national level. Each partner will have to engage at least 20 teachers and 5 students to validate the project outcomes, collecting the results of the validation questionnaires for teachers and for students. The aim is to receive valuable feedback towards continuous improvement.

## 2.2 Questionnaire for teachers

Please score the following statements considering the scale:

**1 = Completely Disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Completely agree.**

	1.	2.	3.	4.	5.
The topics and contents addressed by the Gamified Mediator were relevant	0	1	3	9	6
The scenarios proposed in the Gamified Mediator were adequate to the acquisition of knowledge on Intellectual Property (IP)	0	0	4	8	7
The scenarios proposed in the Gamified Mediator were relevant/significant for teaching IP concepts on STEAM subjects	0	1	3	7	8
The tips/feedback provided were adequate and relevant	0	1	1	10	7
The proposed scenarios were original	0	0	2	7	10
The proposed scenarios were adapted to the target-group	0	0	0	9	10
The overall visual design of the Gamified Mediator was adequate	0	0	0	2	17
The text was legible	0	1	2	10	6
The animations used in the Gamified Mediator were adequate	0	0	4	8	7
The proposed scenarios promoted students' engagement	0	1	3	7	8
The proposed scenarios allowed the acquisition of knowledge in a fun and enjoyable way	0	1	1	10	7

My general evaluation of the Gamified Mediator is positive

0	0	2	7	10
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Please, feel free to add anything you find relevant regarding the Gamified Mediator.

1. I really enjoyed the fact that the scenarios were accompanied by short videos that provided a better understanding of the script
2. Very intuitive

## 2.3 Questionnaire for students

Please score the following statements considering the scale:

**1 = Completely Disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Completely agree.**

	1.	2.	3.	4.	5.
The topics and contents addressed by the Gamified Mediator were relevant	0	1	1	3	1
The Gamified Mediator helped me to understand better the importance of Intellectual Property in STEAM subjects	0	0	1	2	3
The Gamified Mediator gave me important knowledge and resources to apply Intellectual Property in STEAM subjects	0	1	1	2	2
The proposed scenarios were original	0	1	1	2	1
I enjoyed the Gamified Mediator	0	0	2	2	3
The overall visual design of the Gamified Mediator was adequate	0	0	1	2	3
The text was legible	0	0	0	2	3

The animations used in the Gamified Mediator were adequate	0	0	2	1	3
The tips/feedback were useful for clarifications	0	1	2	2	1
The proposed scenarios allowed me the acquisition of knowledge in a fun and enjoyable way	0	0	1	2	3
I would recommend this Gamified Mediator to others	0	0	2	2	2
My general evaluation of the Gamified Mediator is positive	0	0	0	3	3

Please, feel free to add anything you find relevant regarding the Gamified Mediator.

1. It was easy to understand what to do
2. The gifs were really helpful!

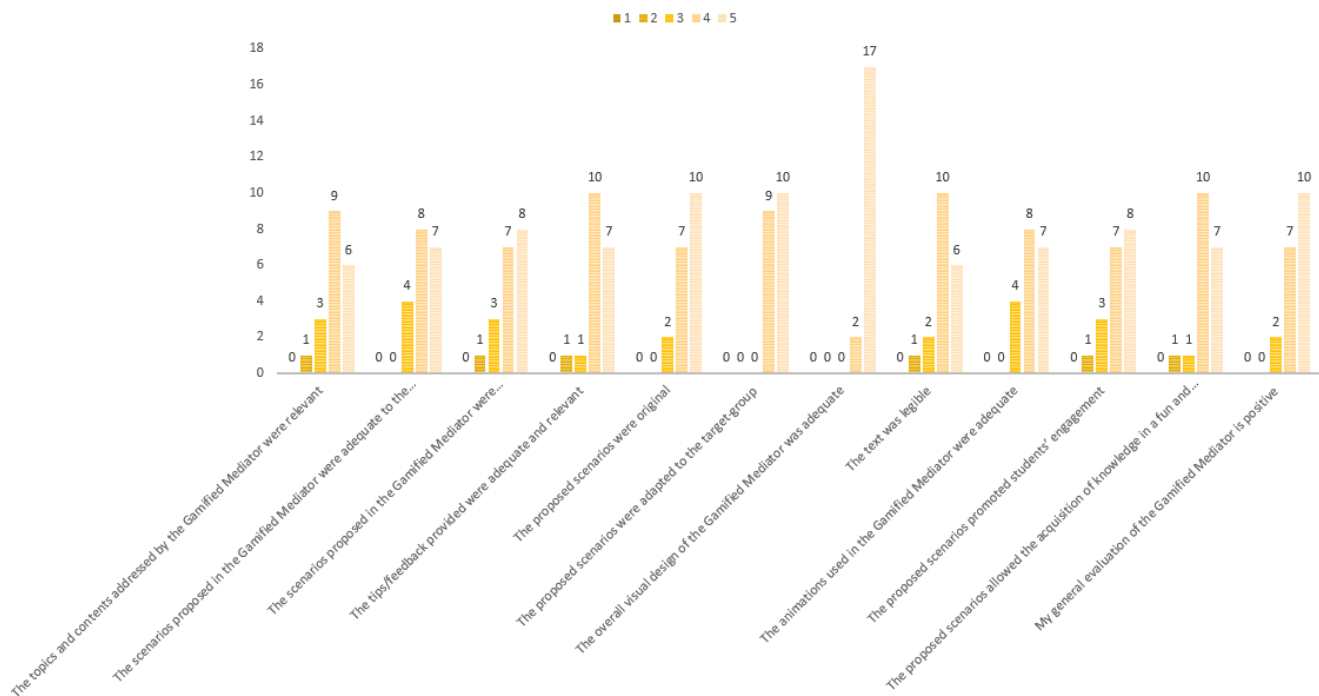
## 3. Conclusions

### 3.1 Conclusions for teachers

Regarding the conclusion of the questionnaire distributed among teachers, the average rate of the mediator was **4.24/5**, with teachers being more enthusiastic about the visuals and their usefulness in understanding the scenarios. A safe conclusion is that the gamification elements of the tool (short videos, quizzes, certificate) add value to the whole experience and support the learning process.



### GAMIFIED MEDIATOR - TEACHERS' FEEDBACK



## 3.2 Conclusions for students

When it comes to the evaluation of behalf of students, the average rate of the mediator was **4.03/5**, which leads to the conclusion that students actually felt comfortable and enjoyed their experience establishing the added value of the tool.

### GAMIFIED MEDIATOR - STUDENTS' FEEDBACK

