PROJECT DELIVERABLE – PUBLIC

D2.2 COM'N'PLAY-SCIENCE ONLINE INVENTORY OF PRACTICES – FIRST VERSION

v. 1.0

31 October 2019

PROJECT FACT SHEET

Acronym
COMnPLAY SCIENCE

Full Title
Learning science the fun and creative way: coding, making, and play as vehicles for informal science learning in the 21st century

Programme / Pillar / Topic
Horizon 2020 / Science with and for Society / Science education outside the classroom

Type of Action
Research and Innovation action

Grant Agreement
No 787476

Duration
36 months (1/6/2018 – 31/5/2021)

Grant Amount
€ 3,097,715.00

Overview
The project aims to help Europe better understand the new ways in which informal science learning is taking place through various coding, making, and play activities that young Europeans (children, adolescents and young adults) are nowadays increasingly engaged with, outside school and higher education science classrooms, beyond the formal boundaries of science education.

The project's main objectives are to:

a. Develop an appropriate conceptual and methodological framework integrating all aspects of the project into a unifying conceptual map.
b. Setup a European-wide community of stakeholders, including learners, educators, facilitators and policy makers from diverse fields, to contribute, guide and help assessing the conducted research.
c. Identify, pool and analyse diverse existing coding, making and play-based practices taking place outside formal science classrooms which bear some promise for informal science learning.
d. Conduct in-depth learner-centred participatory empirical research on selected practices.
e. Gain a deep understanding of the impact that this kind of informal science learning has on formal science education, traditional informal science learning interventions, young people as learners and citizens, as well as, on society.
f. Communicate and disseminate the messages and outcomes of the project widely, and enable the exploitation of the findings of the research through the development of relevant guidance for practitioners and recommendations for policy development and further research.

The main results stemming from the project include:

- An online inventory of all the identified and pooled practices, appropriately categorized and annotated in the light of the findings of the research, available to stakeholders and the public.
- A set of community building methods and tools for everyone wishing to get involved in community building linked to the project.
- A Web-based game promoting and supporting the continuous prolonged engagement of learners and their facilitators in the field research.
- The *COMnPLAY SCIENCE Knowledge Kit*, a modular set of reader-friendly, practice-oriented publications, encapsulating the findings of the project.
- The *COMnPLAY SCIENCE Roadmap for Europe*, a detailed concerted account by the consortium, the stakeholder communities and policy makers of the potential for short-, medium- and long term impact of coding, making and play-based informal science learning.
- Numerous public events (workshops, training seminars, conferences, contests, fairs), often combined with training activities (winter and summer schools).

Project Coordinator

Norwegian University of Science and Technology (NTNU)
Prof. Michail Giannakos
Phone: +47 73590731
E-mail: michailg@ntnu.no

Consortium Members

Norwegian University of Science and Technology, Norway (coordinator)

University of Oulu, Finland

Foundation for Research and Technology – Hellas, Greece

Eindhoven University of Technology, Netherlands

Uppsala University, Sweden

Technical University of Munich, Germany

University of Malta, Malta

Design for Change initiative, Spain

ovos media GmbH, Austria

King's College London, UK

Science Museum Group, UK

Web & Social media

Web Site: http://comnplayscience.eu   Facebook: https://fb.me/ComNPlayScience
YouTube: https://bit.ly/2Hq5FsK   Twitter: @comnplayscience
ResearchGate: https://www.researchgate.net/project/CoM-n-Play-Science

DOCUMENT IDENTITY

Deliverable code number	D2.2
Deliverable title	CoM'n'Play-Science Online Inventory of Practices – First Version
Relevant work package	WP2
Relevant task(s)	Task 2.3
Short description	This report accompanies the online inventory of practices created by the project to make all identified and pooled practices available to stakeholders and the public, for dissemination and further exploitation in the world of science learning. The deliverable describes the goals, design and functionality of the related section of the project website.
Consortium partners leading	FORTH
Consortium partners contributing	All
Main authors	Dimitris Grammenos
Secondary contributors	All partners
Due date	31 October 2019
Submission date	1 November 2019
Dissemination level	Public

1. Executive Summary

In the context of "Task2.3 Inventory of practices" the consortium is developing an online inventory which offers all the identified and pooled practices to the public for dissemination and further exploitation in the world of science learning. The practices are appropriately categorized and annotated in the light of the findings of the research, including extensive case studies of those practices investigated in depth.

The online inventory is made available as a section of the project website. This explanatory report is meant to inform not only the consortium, but also the interested average reader outside the project about the goals, design and functionality of the related section of the project website. Additionally, the next steps towards creating the next (and final) version of the Inventory are outlined.

This deliverable will be updated through the submission of deliverable D2.3, scheduled for M36.

Table of Contents

2. Introduction

In the context of "Task2.3 Inventory of practices" the consortium is developing an online inventory which offers all the identified and pooled practices to the public for dissemination and further exploitation in the world of science learning. The practices are appropriately categorized and annotated in the light of the findings of the research, including extensive case studies of those practices investigated in depth.

The online inventory is made available as a section of the project website. This explanatory report is meant to inform not only the consortium, but also the interested average reader outside the project about the goals, design and functionality of the related section of the project website. Additionally, the next steps towards creating the next (and final) version of the Inventory are outlined.

This deliverable will be updated through the delivery of D2.3.

3. Designing the Inventory of Practices

The design of the inventory of practices is being created through an iterative user-centered design process. The online Inventory of Practices will cater for two main tasks:

(a) Adding new Practices and Case Studies
(b) Browsing and searching the Inventory's contents

3.1 Adding new Practices and Case Studies

In order to store, process and present practice-related information, the consortium first had to agree upon which data should be collected for describing a practice. Based on information related to practices collected and analysed in the context of "D1.1 Conceptual and Methodological Framework" and "D2.1 Identified Practices and Research Sample", a list of initial candidate fields was created. Subsequently, through a series of iterations of comments and suggestions the final draft list was created. This list was implemented as a functional - but hidden to the public part - of the project web site and presented to potential users and was also used by consortium members to add their practices to the inventory. During this process, based on problems identified, some additional adjustments were made. The final list created includes the following data (fields with * are mandatory - the full form as presented on the web site is included in Annex A):

A. General Information

A1. Title* (name of the practice)

A2. Brief* description

A3. Photos

A4. Countries* (where the practice takes place)

A5. Cities (where the practice takes place)

A6. Organization name (running the practice)

A7. Organization type

A8. Contact person

A9. Contact email* (for further information and inquiries regarding the practice)

A10. Related social media

A11. Related resources (e.g., web site, publications, media)

B. Participants & Time

B1. Participants' age groups*

B2. Indicative number of participants*

B3. Is the practice oriented to a specific gender?*

B4. Frequency (for the same group of participants)*

B5. Total duration (for the same group of participants)*

C. Approach & Content

C1. Location(s) (where the practice takes place)*

C2. What is / are the role(s) of the adult(s) running the practice? *

C3. During the practice, participants … (Make / Play / Code)

C4. Participants work ... * (this question is related to grouping)

C5. What type of materials do participants use?

C6. Pedagogical approach

C7. Social justice/equity approaches

C8. Does the practice have (explicit or implicit) learning objectives?*

C9. Is the practice (explicitly or implicitly) connected to school curricula?*

C10. If connected in any way to school curricula, which subjects are covered?

D. Other

D1. Is there anything that you consider important to state regarding this practice, which is not covered by this form?

Currently another iterative process is taking place (taking into account the results included in "D3.1 Research on Learning Interim Report") for deciding upon the list of data which will be used for adding case studies to the inventory.

3.2 Browsing and searching the Inventory's contents

Based on the data collected for each practice, a retrieval web interface was designed which allows users to browse and search the inventory's contents. The design follows the layout and

conventions used by search engines and online shops, allowing for a familiar and intuitive user experience.

3.2.1   Browsing and searching for practices

The user interface for browsing and searching for practices comprises 4 key areas (see Figure 1, Annex B for a larger image and Annex G for the implemented version):

(a)   Filtering tools
(b)   Data source & Search
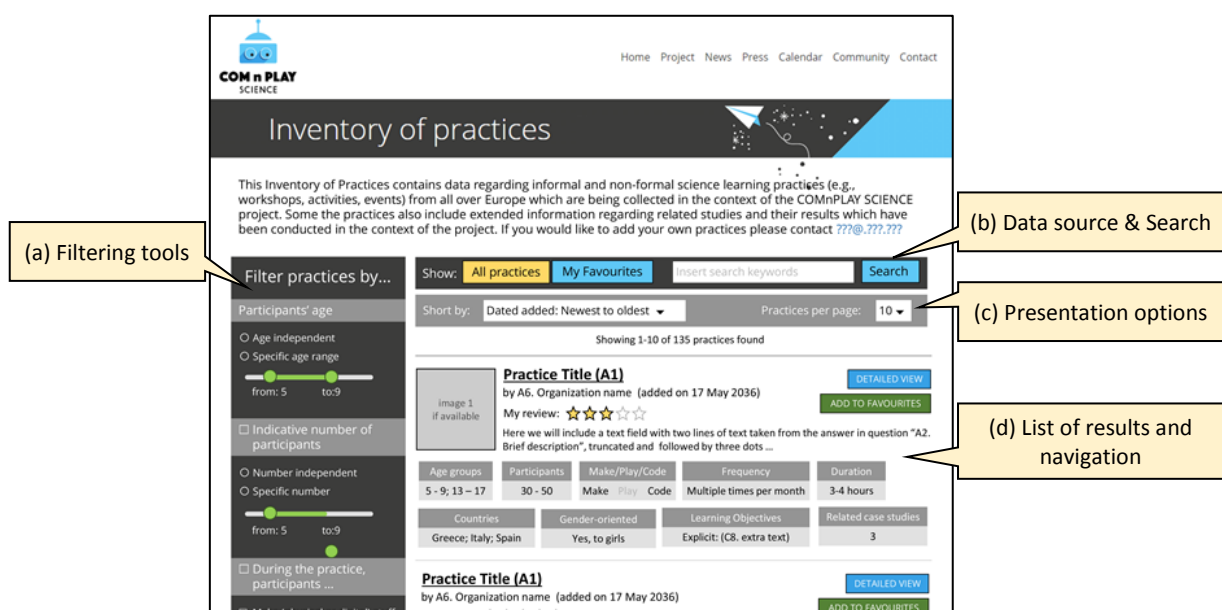(c)   Presentation options
(d)   List of results and navigation

Figure 1. User interface for browsing and searching for practices

Through the **filtering tools** users can set a number of criteria for selecting a subset of practices. Currently there criteria include:

- Participants' age
- Indicative number of participants
- During the practice, participants … (make / code / play)
- Frequency
- Total duration
- Country
- Gender-oriented
- Location(s)

The **data source & search** area includes 2 radio buttons (i.e., when one is selected the other is deselected) for choosing if the pool of data used is the whole inventory of practices, or only the practices bookmarked by the user (see Section 3.3, on personalization). Additionally, there is a field for searching the selected pool of data using a set of keywords.

The **presentation options** include a dropdown list for selecting the ordering of results with the following options:

- Date added: Newest to oldest
- Date added: Oldest to newest
- Alphabetically: A to Z
- Alphabetically: Z to A

Additionally, there is a dropdown list from where the user can set the number of practices shown in a page.

The **list of results and navigation** area is where the search results (including information about related practices) is presented. For each result the following information is presented:

- Practice Title (link that leads to the Detailed View for the practice)
- Name of the organisation running the practice
- When it was added to the inventory
- Personal scoring (if the user is registered and has logged in, see Section 3.3, on personalization)
- Short description
- An image (if available)
- Age groups
- Number of participants
- If they Make/Play/Code
- Frequency
- Duration
- Countries where it is implemented
- Gender-orientation
- Learning objectives
- How many related case studies are available

Additionally there are two buttons:

- DETAILED VIEW: For viewing all information which is available for the practice (the same can be accomplished by selecting the Practice Title).
- ADD / REMOVE TO FAVOURITES (if the user is registered and has logged in - see Section 3.3, on personalization).

3.2.2 Practice detailed view

In the detailed view (see Figure 2, Annex C for a larger image and Annex H for the implemented version), the user can see all the data collected for a practice through the input form. For consistency reasons, the top part of the screen presents data in a similar way as in the list of search results and does not change when the user selects a tab from the main part of the page (tabs are described below). Additionally, a button is included at the top of the page for returning to the main page of the Inventory of Practices.

The main part of the page includes two tabs:

(a) One containing all the practice-related information.
(b) *One presenting data from related cases studies (if available). This tab will be added in the next version of the Inventory of Practices (in D2.3).*
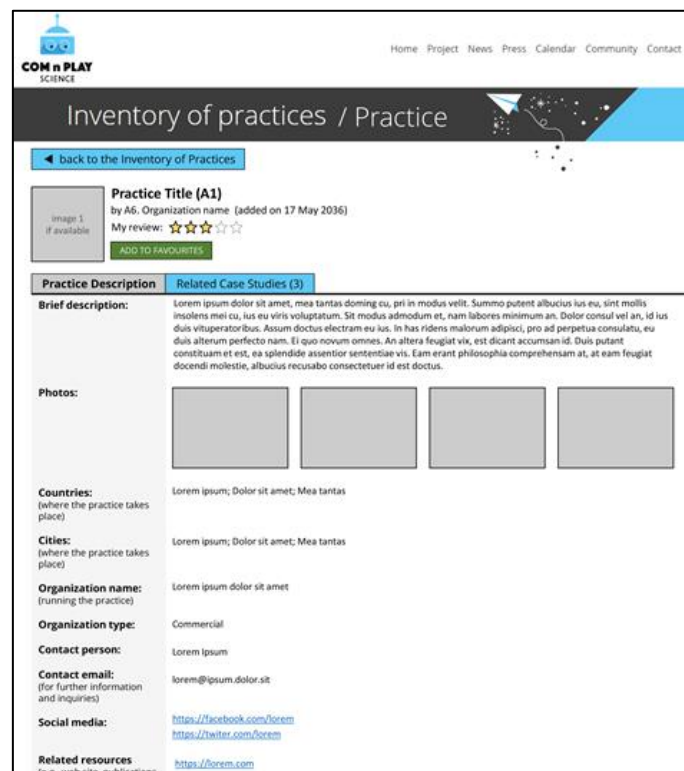

Figure 2. Practice detailed view

3.2.3   List of Case Studies related to a practice

This page presents a list of case studies related to the selected practice (see Figure 3Figure 1, or Annex D for a larger image). For each practice the following information is presented:

- Case study Title (link that leads to the Detailed View for the case study)
- Name of the organisation that conducted the study
- When it was realised
- Where (City, Country)
- Image (if available).
- Profile of the participants.
- Participants age
- Objectives of the study
- Research instruments used
- What data were collected

Additionally there is a button for accessing the full case study report.
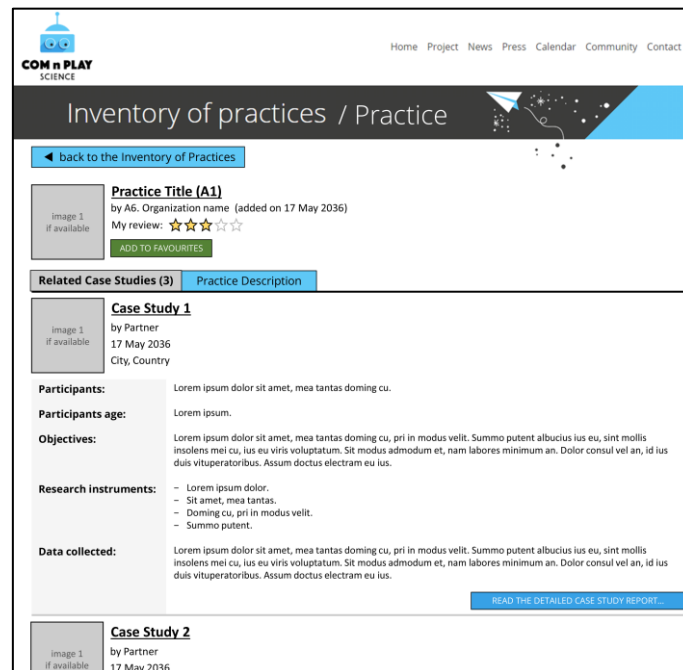
Figure 3. List of Case Studies related to a practice

3.2.4 Case Study detailed view

In this page (see Figure 4, or Annex E for a larger image), the user can read the full report of a case study. For consistency reasons, above the report the brief case study description is presented. Additionally, a button is included for returning to the list of case studies.
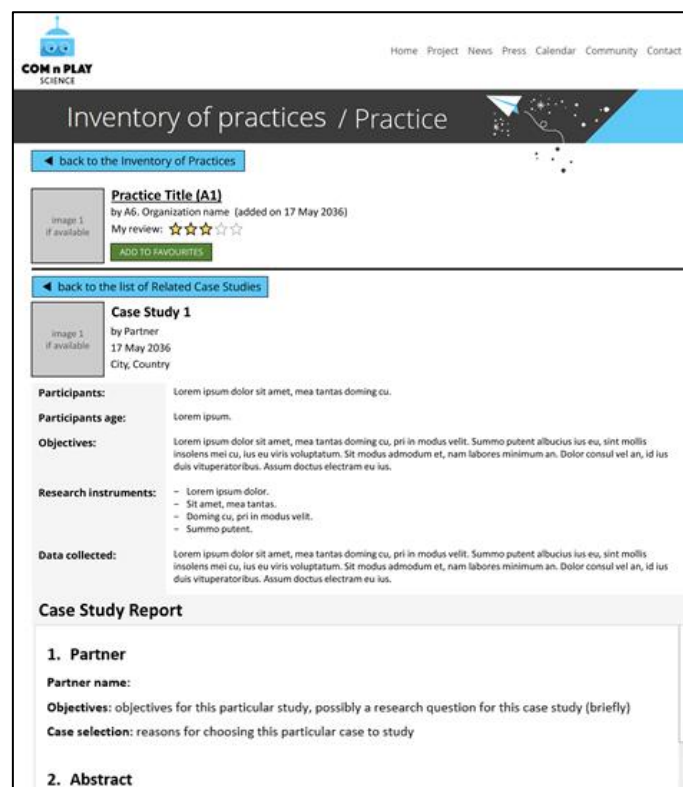
Figure 4. Case Study detailed view

3.3   Login & Personalization

A user login mechanism is currently being implemented for the second version of the Inventory of Practices (D2.3). This mechanism will provide Inventory users with two main functions:

(a) Keeping track of the practices that they have added through the input form and being able to partially save the data entered before submitting them or even editing them after being published.

(b) Bookmarking and scoring selected practices. Bookmarking will be implemented through a favourites' collection (see Figure 5). Whenever a practice is presented (in short or detailed form), a button resides nearby allowing adding it to the user's favourites collection (or removing it, if it is already there). In the main page of the Inventory, users can see a list of their favourite practices, and even apply the available search and filtering mechanism to them. Additionally, users can add a personal score (1-5 stars) to each practice, which is visible only to themselves. The scoring mechanism is not public, since it is intended to be used as a personal reminder of the subjective relevance or utility of a practice for a particular user and not as a global grading tool.
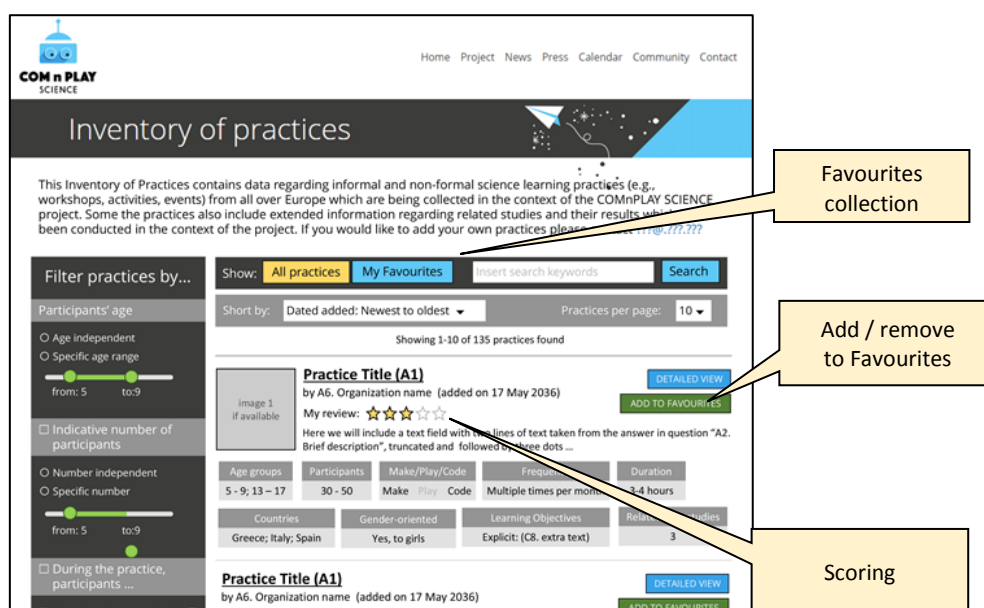
Figure 5. Personalisation mechanisms

4.   Implementing the Inventory of Practices

The first version of the online input form was implemented using WordPress[1] forms. Due to a number of limitations regarding saving, editing, presentation and personalisation options, as

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[1] https://wordpress.com

well as the flexibility and expandability of the implementation, it was decided to re-implement the input form (see Annex F) along with the retrieval interface using *Laravel*[2] for the backend and Vs*uejs*[3] for the front-end.

Laravel is a free, open-source PHP web framework, intended for the development of web applications following the model–view–controller (MVC) architectural pattern and based on Symfony [4] (a free PHP web application framework and a set of reusable PHP components/libraries). Some of the features of Laravel are a modular packaging system with a dedicated dependency manager, different ways for accessing relational databases, utilities that aid in application deployment and maintenance, and its orientation toward syntactic sugar.

Vs*uejs* is a progressive framework for building user interfaces. Unlike other monolithic frameworks, Vue is designed from the ground up to be incrementally adoptable. The core library is focused on the view layer only, and is easy to pick up and integrate with other libraries or existing projects. On the other hand, Vue is also perfectly capable of powering sophisticated Single-Page Applications when used in combination with modern tooling and supporting libraries.

5. Next steps towards D2.3

The following steps will be taken for creating the next (and final updated version) of the Inventory of Practices (D2.3: CoM'n'Play-Science Online Inventory of Practices – Final Version):

1. Decide upon the list of data which will be used for adding the case studies conducted by the partners to the inventory.

2. Develop the form for adding case studies.

3. Add case studies to the inventory.

4. Develop the tab for presenting data from related cases studies (if available).

5. Develop the user login mechanism.

6. Develop the interface for editing one's own practices.

7. Develop the bookmarking and scoring mechanisms.

8. Invite people who participated in the survey of "D2.1 Identified Practices and Research Sample" to share their practice data in the Inventory.

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[2] laravel.com
[3] vuejs.org
[4] symfony.com

9. Publicise the Inventory through social and mass media, events, communications, publications, etc.

10. Extend the invitation to contribute to anyone interested.

ANNEX A
INVENTORY OF PRACTICES - ONLINE FORM
VERSION 1

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Inventory of practices - Online form

The goal of this form is to collect data regarding informal and non-formal science learning practices (e.g., workshops, activities, events) from all over Europe. These data **will be made publicly available online** (and supported by appropriate search and filtering mechanisms) through a related section of the COMnPLAY SCIENCE project's website (https://comnplayscience.eu/).

All information should be submitted in English.

A1. Title *
(name of the practice)

max 20 words

A2. Brief description *

max 100 words

A3. Photos

Note:
By submitting a photo you warrant that you have the right to make it available to the COMnPLAY SCIENCE project and that the persons depicted in it have granted permission to be portrayed. If the photograph includes children, their faces should be hidden or you must have written permission from a parent or guardian of every child featured. (Please note: This information will be publicly available.)

Add your images

Add

A4. Countries *
(where the practice takes place)

○ Not taking place at a specific country
○ Takes place in... (please specify below)

A5. Cities
(where the practice takes place)

○ Not taking place at a specific city
○ Takes place in... (please specify below)

A6. Organization name
(running the practice)

A7. Organization type

○ Commercial
○ Nonprofit
○ Public
○ Other :

A8. Contact person
(Please note: This information will be publicly available)

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the practice)

A10. Related social media

Add links to social media

Add Link

A11. Related resources
(e.g., web site, publications, media)

Add links to related resources

Add Link

B1. Participants' age groups *

◉ Age independent
○ Age groups... (please specify below)

B2. Indicative number of participants *

○ Number independent
○ from 'x' to 'y' number of participants

B3. Is the practice oriented to a specific gender? *

○ No
○ Yes, to boys
○ Yes, to girls
○ Yes, to other :

B4. Frequency *
(for the same group of participants)

○ Single-occasion
○ Once a week
○ Multiple times per week [2-7]
○ Once a month
○ Multiple times per month [2-30]
○ Other :

B5. Total duration *
(for the same group of participants - select the most appropriate one)

○ half day
○ full day
○ exactly 'x' hours
○ from 'x' to 'y' hours
○ Other :

C1. Location(s) *
(where the practice takes place, tick all that apply)

☐ Classroom, formal learning space, etc.
☐ Community lab, FabLab, non-formal learning space, etc.
☐ Museum, science centre, outreach centre, library, zoo, etc.
☐ Fair, contest, challenge, conferences, seminars, events, etc.
☐ Home
☐ Outdoors
☐ Online
☐ Anywhere
☐ Other... (please specify below)

C2. What is / are the role(s) of the adult(s) running the practice? *
(Tick all that apply)

☐ Teacher
☐ Presenter
☐ Facilitator
☐ Mentor / Guide
☐ Participant
☐ Observer
☐ Maker/coder/scientist
☐ Other   (please specify below)

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C3. During the practice, participants ...
(Tick all that apply)

☐ Make (physical or digital) stuff
☐ Play
☐ Code

C4. Participants work ... *
(Tick all that apply)

☐ Alone
☐ In pairs
☐ In family groups/with support of family group
☐ All together / there is no particular grouping
☐ In groups of... (please specify below)

C5. What type of materials do participants use?
(Tick all that apply)

Non-electronic

☐ Pen and paper
☐ Board
☐ Manipulatives (blocks, beads, etc.)
☐ Craft supplies / Stationery
☐ Woodworking materials
☐ Other... (please specify below)

Electronic

☐ Computers
☐ Mobile phones
☐ Tablets
☐ Robotics
☐ Digital games
☐ Boards / circuits
☐ 3D printers
☐ Laser cutters
☐ CNC tools
☐ Other... (please specify below)

C6. Pedagogical approach
(Tick all that apply)

☐ Problem-based learning
☐ Project (or task)-based learning
☐ Design-based learning
☐ Collaborative-learning
☐ Discovery-learning
☐ Creative thinking
☐ Critical thinking
☐ Real-life challenges
☐ Competition
☐ Other... (please specify below)

C7. Social justice/equity approaches
(Tick all that apply)

☐ Activities address issues of equity (gender, sexuality, ethnicity, social class, ability/disability)
☐ Free events/funding for those from low-income groups
☐ Staffing team is diverse and includes people from participants' communities
☐ Activities are designed to empower participants and meet their needs
☐ Other... (please specify below)

C8. Does the practice have (explicit or implicit) learning objectives? *

Does the practice have (explicit or implicit) learning objectives

○ Yes, explicit.
○ Yes, implicit.
○ No

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C10. If connected in any way to school curricula, which subjects are covered?
(Tick all that apply)

☐ Art
☐ Biology
☐ Chemistry
☐ Computer science
☐ Design
☐ Geography
☐ Geology
☐ Humanities
☐ Literature
☐ Mathematics
☐ Physics
☐ Technology
☐ Other... (please specify below)

D1. Is there anything that you consider important to state regarding this practice, which is not covered by this form?

max 100 words

☐ I declare that own all Intellectual Property Rights of – or have obtained permission to submit – all the materials included in this form and I grant to COMnPLAY SCIENCE project a perpetual, royalty-free, license to make them publicly available online through a related section of the COMnPLAY SCIENCE project's website (https://comnplayscience.eu/).

Submit   Cancel

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ANNEX B
(UI DESIGN) USER INTERFACE FOR BROWSING AND SEARCHING FOR PRACTICES

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Inventory of practices

This Inventory of Practices contains data regarding informal and non-formal science learning practices (e.g., workshops, activities, events) from all over Europe which are being collected in the context of the COMnPLAY SCIENCE project. Some the practices also include extended information regarding related studies and their results which have been conducted in the context of the project. If you would like to add your own practices please contact ???@.???.???

Show: **All practices** | **My Favourites** | Insert search keywords | **Search**

Short by: Dated added: Newest to oldest ▾ | Practices per page: 10 ▾

Showing 1-10 of 135 practices found

Filter practices by...

Participants' age
- Age independent
- Specific age range
  from: 5 to:9

☐ **Indicative number of participants**
- Number independent
- Specific number
  from: 5 to:9

☐ **During the practice, participants ...**
☐ Make (physical or digital) stuff
☐ Play
☐ Code

☐ **Frequency**
- Single-occasion
- Once a week
- Multiple times per week [2-7]
- Once a month
- Multiple times per month [2-30]
- Other

☐ **Total duration**
- Half day
- Full day
- Specific hours
  from: 5 to:9

☐ **Country**
Any ▾

☐ **Gender-oriented**
- No
- Yes, to boys
- Yes, to girls
- Yes, to other

☐ **Location(s)**
☐ Classroom, formal learning space, etc.
☐ Community lab, FabLab, non-formal learning space, etc.
☐ Museum, science centre, outreach centre, library, zoo, etc.
☐ Fair, contest, challenge, conferences, seminars, events, etc.
☐ Home
☐ Outdoors
☐ Online
☐ Anywhere
☐ Other

Practice Title (A1)
image 1 if available
by A6. Organization name (added on 17 May 2036)
My review: ★★★☆☆
DETAILED VIEW | **ADD TO FAVOURITES**
Here we will include a text field with two lines of text taken from the answer in question "A2. Brief description", truncated and followed by three dots ...

Age groups	Participants	Make/Play/Code	Frequency	Duration
5 - 9; 13 – 17	30 - 50	Make Play Code	Multiple times per month	3-4 hours

Countries	Gender-oriented	Learning Objectives	Related case studies
Greece; Italy; Spain	Yes, to girls	Explicit: (C8. extra text)	3

Practice Title (A1)
by A6. Organization name (added on 17 May 2036)
My review: ☆☆☆☆☆
DETAILED VIEW | **ADD TO FAVOURITES**
Here we will include a text field with two lines of text taken from the answer in question "A2. Brief description", truncated and followed by three dots ...

Age groups	Participants	Make/Play/Code	Frequency	Duration
age independent	Number independent	Make Play Code	Once a month	Half day

Countries	Gender-oriented	Learning Objectives	Related case studies
UK	No	No	-

ANNEX C
(UI DESIGN) PRACTICE DETAILED VIEW

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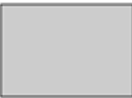
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Inventory of practices / Practice

◄ back to the Inventory of Practices

Practice Title (A1)
by A6. Organization name (added on 17 May 2036)
My review: ★★★☆☆

image 1
if available

ADD TO FAVOURITES

| **Practice Description** | **Related Case Studies (3)** |

Brief description:
Lorem ipsum dolor sit amet, mea tantas doming cu, pri in modus velit. Summo putent albucius ius eu, sint mollis insolens mei cu, ius eu viris voluptatum. Sit modus admodum et, nam labores minimum an. Dolor consul vel an, id ius duis vituperatoribus. Assum doctus electram eu ius. In has ridens malorum adipisci, pro ad perpetua consulatu, eu duis alterum perfecto nam. Ei quo novum omnes. An altera feugiat vix, est dicant accumsan id. Duis putant constituam erat est, ea splendide assentior sententiae vis. Eam erant philosophia comprehensam at, at eam feugiat docendi molestie, albucius recusabo consectetuer id est doctus.

Photos:

Countries:
(where the practice takes place)
Lorem ipsum; Dolor sit amet; Mea tantas

Cities:
(where the practice takes place)
Lorem ipsum; Dolor sit amet; Mea tantas

Organization name:
(running the practice)
Lorem ipsum dolor sit amet

Organization type:
Commercial

Contact person:
Lorem Ipsum

Contact email:
(for further information and inquiries)
lorem@ipsum.dolor.sit

Social media:
https://facebook.com/lorem
https://twiter.com/lorem

Related resources
(e.g., web site, publications, media)
https://lorem.com
https://youtube.com.lorem

Participants' age groups:
5 – 9; 11 – 15

Indicative number of participants:
20 - 30

Oriented to a specific gender?
No

Frequency:
(for the same group of participants)
Multiple times per month [2-30]

Total duration:
(for the same group of participants)
Exactly 3 hours

Location(s):
(where the practice takes place)
- Community lab, FabLab, non-formal learning space, etc.
- Museum, science centre, outreach centre, library, zoo, etc.
- Fair, contest, challenge, conferences, seminars, events, etc.

What are the role(s) of the adult(s) running the practice?
- Presenter
- Facilitator
- Mentor / Guide

During the practice, participants ...
Make (physical or digital) stuff; Code

Participants work ...
In pairs

What type of materials do participants use?
- Craft supplies / Stationery
- Woodworking materials
- Computers
- Mobile phones
- Tablets
- Robotics

Pedagogical approach:
- Collaborative-learning
- Discovery-learning
- Creative thinking

Social justice/equity approaches:
- Staffing team is diverse and includes people from participants' communities
- Activities are designed to empower participants and meet their needs

Does the practice have (explicit or implicit) learning objectives?
Yes, explicit: Lorem ipsum dolor sit amet, mea tantas doming cu, pri in modus velit.

Is the practice (explicitly or implicitly) connected to school curricula?
Yes, implicitly.

If connected in any way to school curricula, which subjects are covered?
- Computer science
- Design
- Geography

Additional notes:
Lorem ipsum dolor sit amet, mea tantas doming cu, pri in modus velit. Summo putent albucius ius eu, sint mollis insolens mei cu, ius eu viris voluptatum. Sit modus admodum et, nam labores minimum an. Dolor consul vel an, id ius duis vituperatoribus. Assum doctus electram eu ius.

D2.2 CoM'n'Play-Science Online Inventory of Practices (v.1) – PUBLIC

ANNEX D
(UI DESIGN) LIST OF CASE STUDIES RELATED TO A PRACTICE

COMnPLAY SIENCE   25   H2020 no. 787476

ANNEX E
(UI DESIGN) CASE STUDY DETAILED VIEW

ANNEX F
INVENTORY OF PRACTICES - ONLINE FORM
VERSION 2

Home Project News Press Calendar Community Contact Inventory of Practices

Create new practice

The goal of this form is to collect data regarding informal and non-formal science learning practices (e.g., workshops, activities, events) from all over Europe. These data will be made publicly available online (and supported by appropriate search and filtering mechanisms) through a related section of the COMnPLAY SCIENCE project's website.

*All information should be submitted in English.

A1. Title
(name of the practice)

A2. Brief description

A3. Photos

Note:
By submitting a photo you warrant that you have the right to make it available to the COMnPLAY SCIENCE project and that the persons depicted in it have granted permission to be portrayed. If the photograph includes children, their faces should be hidden or you must have written permission from a parent or guardian of every child featured. (Please note: This information will be publicly available.)

Choose Files No file chosen

A4. Countries
(where the practice takes place)

○ Not taking place at a specific country
○ Takes place in... (please specify below)

Afghanistan
Åland Islands
Albania
Algeria

A5. Cities

○ Not taking place at a specific city
○ Takes place in... (please specify below)

City name

A6. Organization name
(running the practice)

A7. Organization type

○ Commercial
○ Nonprofit
○ Public
○ Other

Specify other

A8. Contact person
(Please note: This information will be publicly available)

A9. Contact email
(for further information and inquiries regarding the practice)

A10. Related social media

A11. Related resources
(e.g., web site, publications, media)

B1. Participants' age groups

○ Age independent
○ Age groups... (please specify below)

From | To

B2. Indicative number of participants

○ Number independent
○ from 'x' to 'y' number of participants

From | To

B3. Is the practice oriented to a specific gender?
(running the practice)

○ No
○ Yes, to boys
○ Yes, to girls
○ Yes, to other

B4. Frequency
for the same group of participants

○ Single-occasion
○ Once a week
○ Multiple times per week [2-7]
○ Once a month
○ Multiple times per month [2-30]
○ Other

B5. Total duration
(for the same group of participants - select the most appropriate one)

- ○ half day
- ○ full day
- ○ exactly 'x' hours
- ○ from 'x' to 'y' hours
- ○ Other

C1. Location(s)
(Tick all that apply)

- ☐ Classroom, formal learning space, etc.
- ☐ Community lab, FabLab, non-formal learning space, etc.
- ☐ Museum, science centre, outreach centre, library, zoo, etc.
- ☐ Fair, contest, challenge, conferences, seminars, events, etc.
- ☐ Home
- ☐ Outdoors
- ☐ Online
- ☐ Anywhere
- ☐ Other

C2. What is / are the role(s) of the adult(s) running the practice?
(Tick all that apply)

- ☐ Teacher
- ☐ Presenter
- ☐ Facilitator
- ☐ Mentor / Guide
- ☐ Participant
- ☐ Observer
- ☐ Maker/coder/scientist
- ☐ Other

C3. During the practice, participants
(Tick all that apply)

- ☐ Make (physical or digital) stuff
- ☐ Play
- ☐ Code

C4. Participants work
(Tick all that apply)

- ☐ Alone
- ☐ In pairs
- ☐ In family groups/with support of family group
- ☐ All together / there is no particular grouping
- ☐ In groups of... (please specify below)

C5. What type of materials do participants use?
(Tick all that apply)

Non-electronic
- ☐ Pen and paper
- ☐ Board
- ☐ Manipulatives (blocks, beads, etc.)
- ☐ Craft supplies / Stationery
- ☐ Woodworking materials
- ☐ Other

Electronic
- ☐ Computers
- ☐ Mobile phones
- ☐ Tablets
- ☐ Robotics
- ☐ Digital games
- ☐ Boards / circuits
- ☐ 3D printers
- ☐ Laser cutters
- ☐ CNC tools
- ☐ Other

C6. Pedagogical approach
(Tick all that apply)

- ☐ Problem-based learning
- ☐ Project (or task)-based learning
- ☐ Design-based learning
- ☐ Collaborative-learning
- ☐ Discovery-learning
- ☐ Creative thinking
- ☐ Critical thinking
- ☐ Real-life challenges
- ☐ Competition
- ☐ Other

C7. Social justice/equity approaches
(Tick all that apply)

- ☐ Activities address issues of equity (gender, sexuality, ethnicity, social class, ability/disability)
- ☐ Free events/funding for those from low-income groups
- ☐ Staffing team is diverse and includes people from participants' communities
- ☐ Activities are designed to empower participants and meet their needs
- ☐ Other

C8. Does the practice have (explicit or implicit) learning objectives?

- ○ Yes, explicit.
- ○ Yes, implicit.
- ○ No

C9. Is the practice (explicitly or implicitly) connected to school curricula?

- ○ Yes, explicitly.
- ○ Yes, implicitly.
- ○ No

C10. If connected in any way to school curricula, which subjects are covered?
(Tick all that apply)

- ☐ Art
- ☐ Biology
- ☐ Chemistry
- ☐ Computer science
- ☐ Design
- ☐ Geography
- ☐ Geology
- ☐ Humanities
- ☐ Literature
- ☐ Mathematics
- ☐ Physics
- ☐ Technology
- ☐ Other

D1. Is there anything that you consider important to state regarding this practice, which is not covered by this form?

☐ I declare that own all Intellectual Property Rights of – or have obtained permission to submit – all the materials included in this form and I grant to COMnPLAY SCIENCE project a perpetual, royalty-free, license to make them publicly available online through a related section of the COMnPLAY SCIENCE project's website (https://comnplayscience.eu/).

Submit practice

ANNEX G
WEB PAGE FOR BROWSING AND SEARCHING
FOR PRACTICES

COM n PLAY SCIENCE

Home Project News Press Calendar Community Contact Inventory of Practices

Inventory of practices

This Inventory of Practices contains data regarding informal and non-formal science learning practices (e.g., workshops, activities, events) from all over Europe which are being collected in the context of the COMnPLAY SCIENCE project. Some the practices also include extended information regarding related studies and their results which have been conducted in the context of the project. If you would like to add your own practices please contact us

Filter practices

Participants' age
- Age independent
- Specific age range

Indicative number of participants
- Number independent
- Specific number

During the practice, participants...
- ☐ Make (physical or digital) stuff
- ☐ Play
- ☐ Code

Frequency
- Single-occasion
- Once a week
- Multiple times per week [2-7]
- Once a month
- Multiple times per month [2-30]
- Other

Total duration
- half day
- full day
- exactly 'x' hours
- from 'x' to 'y' hours
- Other

Country
Any

Gender-oriented
- No
- Yes, to boys
- Yes, to girls
- Yes, to other

Location
- Classroom, formal learning space, etc.
- Community lab, FabLab, non-formal learning space, etc.
- Museum, science centre, outreach centre, library, zoo, etc.
- Fair, contest, challenge, conferences, seminars, events, etc.
- Home
- Outdoors
- Online
- Anywhere
- Other

[Show all practices] [My favourites]   Search 🔍

Dated added: Newest to oldest ⇕   Practices per page: 10 ⇕

Showing 1-10 of 15 practices found

Little Red-Smart-Hood   [Read more]
by FORTH added on 31 Oct 2019
My review: ☆☆☆☆☆

The workshop is based on an online book and related resources (available in Greek), entitled "Little Red-Smart-Hood" (https://gramenos.wixsite.com/smarthood). The text is an adaptation of the original Grimm Brothers' version of the "Little red cap" (or, riding hood) fairytale, "updated" with, state-of-the-art and emerging techno ...

Age groups	Participants	Make/Play/Code	Frequency	Duration	Countries
9 - 99	1 - 100	Make Play	Single-occasion	exactly 'x' hours	Greece

Gender-oriented	Learning Objectives
No	Yes, explicit.

The Malta Information Technology Agency Game-based Learning Week at Esplora Interactive Science Centre   [Read more]
by Malta Information Technology Agency added on 31 Oct 2019
My review: ☆☆☆☆☆

Children joined the workshops together with their parents. They were invited to play selected digital games which were then used as a starting point for discussion. The selection of the digital games depended on the target group, the age, previous experience, and preferences of the children. The discussion was followed by a work ...

Age groups	Participants	Make/Play/Code	Frequency	Duration	Countries
5 - 10	10 - 30	Play	Single-occasion	exactly 'x' hours	Malta

Gender-oriented	Learning Objectives
No	Yes, implicit.

GDPR and the 40 Thieves   [Read more]
by FORTH added on 31 Oct 2019
My review: ☆☆☆☆☆

GDPR and the 40 Thieves is an interactive workshop that presents, in a very simple and entertaining way, issues related to the protection of personal data in the digital age. Also, through an experiential approach, it introduces the General Data Protection Regulation (GDPR) and the fundamental rights it guarantees for all citize ...

Age groups	Participants	Make/Play/Code	Frequency	Duration	Countries
Age independent	20 - 200	Make Play	Single-occasion	exactly 'x' hours	Greece

Gender-oriented	Learning Objectives
No	Yes, explicit.

Science in City – Institute of Digital Games   [Read more]
by Institute of Digital Games added on 31 Oct 2019
My review: ☆☆☆☆☆

Science in the City is a yearly event overflowing with art-infused science, bringing the newest research to the public in ways in new and innovative ways. It is part of the EU-wide event "European Researchers' Night". The goal of the event is to raise awareness on how research impacts each and every one of us in our daily lives ...

Age groups	Participants	Make/Play/Code	Frequency	Duration
Age independent	Number independent	Play	Single-occasion	exactly 'x' hours

Countries	Gender-oriented	Learning Objectives
Malta	No	Yes, implicit.

Previous 1 2 Next

ANNEX H
WEB PAGE FOR PRACTICE DETAILED VIEW

COMn PLAY SCIENCE

Home   Project   News   Press   Calendar   Community   Contact   Inventory of Practices

‹ Little Red-Smart-Hood

Little Red-Smart-Hood
by FORTH added on 31 Oct 2019
My review: ★★★★★
Add to favourites

| **Practice description** | Related case studies (3) |

Brief description:
The workshop is based on an online book and related resources (available in Greek), entitled "Little Red-Smart-Hood" (https://gramenos.wixsite.com/smarthood). The text is an adaptation of the original Grimm Brothers' version of the "Little red cap" (or, riding hood) fairytale, "updated" with, state-of-the-art and emerging technologies. The goal of the workshop is to aid participants to learn about technologies that already affect their everyday lives or, are expected to shape their futures, and critically think (but also using humour) about them, overcoming the initial wow factor that these technologies create.

Photos:

Countries:
(where the practice takes place)
Greece

Cities:
(where the practice takes place)
-

Organization name:
(running the practice)
FORTH

Organization type:
Nonprofit

Contact person:
Dimitris Grammenos

Contact email:
(for further information and inquiries)
gramenos@ics.forth.gr

Social media:
-

Related resources:
(e.g., web site, publications,media)
https://gramenos.wixsite.com/smarthood

Participants' age groups:
9 - 99

Indicative number of participants:
1 - 100

Oriented to a specific gender?
No

Frequency:
(for the same group of participants)
Single-occasion

Total duration:
(for the same group of participants)
1 - 1 hours

Oriented to a specific gender?
(running the practice)
FORTH

Location:
(where the practice takes place)
- Classroom, formal learning space, etc.
- Community lab, FabLab, non-formal learning space, etc.
- Museum, science centre, outreach centre, library, zoo, etc.

What are the role(s) of the adult(s) running the practice?
- Presenter
- Facilitator
- Mentor / Guide

During the practice, participants...
- Make (physical or digital) stuff
- Play

Participants work...
In pairs

What type of materials do participants use?
- Pen and paper
- Craft supplies / Stationery
- Computers

Pedagogical approach:	• Problem-based learning • Project (or task)-based learning • Design-based learning • Collaborative-learning • Discovery-learning • Creative thinking • Critical thinking	
Social justice/equity approaches:	• Free events/funding for those from low-income groups • Activities are designed to empower participants and meet their needs	
Does the practice have (explicit or implicit) learning objectives?	Yes, explicit.	
Is the practice (explicitly or implicitly) connected to school curricula?	Yes, implicitly.	
If connected in any way to school curricula, which subjects are covered?	• Technology	
Additional notes:	-	