Intellectual Output 5:
Open online collection of good practices for inclusion

"PLayful Environment for Inclusive leArning Design in Europe"

"PLEIADE"

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Abstract	This document is intended as a text file annexed to IO5 and it is distributed as accompanying document to the PEIADE Open Online Collection for Food Practices of Inclusion, which can be reached online: https://moodle.pleiade-project.eu/mod/data/view.php?d=4 . The main purpose of this file is to document in detail the process of the development of the collection for good practices, the intermediate and supporting products, and to provide instructions and ideas for reusability of the collection and the technical infrastructure of the repository. The document describes the main activities carried out during the collection development and the responsibilities taken by the partners. It provides a description of developed collection for good practices and use-cases, supporting their usage by external users.
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[1] Use APA style

Internal project peer review process

Reviewed by	Role, Organisation	Date
Reviewer 1	Erica Volta, CNR-ITD	20/07/23
Reviewer 2	–	–
Reviewer 3[2]	–	–
Approved by	Francesca Pozzi	25/07/2023
Francesca Pozzi	Project Manager	25/07/2023
Marcello Passarelli	Quality Manager	25/07/2023

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[2] Optional

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1. Executive summary

The presented document accompanies the Intellectual Output 5 (IO5) of the Erasmus+ project "PLayful Environment for Inclusive leArning Design in Europe" (PLEIADE) (Pleiade project, 2021), the Open Online Collection (OOC) of Good Practices for Inclusion. According to its proposal, the PLEIADE project should foster the sharing of teachers' designs, especially the good practices, and therefore encourage the PLEIADE teacher community to develop a **collection of good practice designs** of **collaborative activities** specifically oriented towards an **inclusive pedagogy**. The designs should be selected based on their **innovative** and **inclusive** potential among those, produced by the teachers involved in PLEIADE. The selection should be done through a peer review procedure, based on the Evaluation kit for inclusion-oriented collaborative learning activities [O4]. It was expected that at least 20 designs would meet the desired quality standards.

This accompanying text file deeply documents the process of selection of good practices for a high level of inclusive potential of collaborative learning designs and high level of inclusive power of the teachers' intervention during the implementation of the designs.

The document shows how the main tasks were completed:

- Peer review of the inclusive (foreseen) potential of the designs produced by the PLEIADE teachers based on the O4 indicators for inclusive design practice. Aim of the peer review is twofold: on the one hand, to lead to the identification of the PLEIADE "Good design practices for Inclusion" (a selection of all the design produced by the PLEIADE teachers); on the other hand, to function as a test-bed for the indicators of the Evaluation kit (see [O4] tasks description);
- Assessment of the inclusive power of the PLEIADE teaching interventions, carried out during the enactment phase, based on the O4 indicators for inclusive teaching practice produced in O4. This task informed the process of selection of the PLEIADE "Good Teaching Practices for Inclusion".
- Distribution of the PLEIADE "Good Practices for Inclusion" comprising both the Good Design and Good Teaching Practices through the O3 platform, as well as other OER databases and community portals.

The enactment monitoring process started in February 2022 (M18), and a month later started the experiments to develop a platform for hosting the collection. The selection process was conducted in parallel with the IO4 development, contributing to the optimization of the Evaluation tool. The First prototype – the Demo version of

the platform, was announced in M30 (February 2023). The last, public version is reached in June 2023 (M34).

The Open Online Collection of Good Practices for Inclusion was published on the PLEIADE Gamified platform in English. It is accessible at: https://moodle.pleiade-project.eu/mod/data/view.php?d=4 .

The metadata of the selected good practices are also distributed through the OER platform Merlot (https://merlot.org/).

2. Introduction

The role of the platform is twofold: a) to provide an environment for contribution to the teachers' professional development in terms of inclusive teaching, b) outside of the PLEIADE project, to foster the power of learning in the frame of the PLEIADE project.

2.1 Aim of this document

This document is intended as part of IO5 and is distributed as release notes to the PLEIADE Open Online Collection of Good Practices for Inclusion.

During the project, PLEIADE teachers produced both half-baked and fully road-tested designs that other users should be able to draw inspiration from, re-purpose and/or reuse.

The main aims of the collection are:

- to maintain a steady level of engagement and interaction by participating teachers within the time frame of PLEIADE;
- to attract a wider community of interested teachers during and, more importantly, after conclusion of the project co-funding period, also thanks to the intensive activities carried out through the PLEIADE multiplier events.

The main scope of this text file is to document in detail the design and process of monitoring the enactments at schools, selection of good practices for high level inclusive potential designs and for inclusive power of teachers' intervention. It describes also the process of development of the platform, hosting the collection, as well as how it is organized.

In line with the proposal, particular attention is paid to factors affecting the re-use of designs and transferability of teaching practices in other contexts.

The **Open Online Collection (OOC) of Good Practices for Inclusion** contains descriptions in English of the designs and highlights from their implementations.

As it is planned in the revised Gantt chart, the IO5 started at M18, and continued almost to the end of the project at M34. The selection of good practices for inclusive potential of collaborative learning designs was conducted in parallel with the BTA training (IO1) and the Evaluation tool (IO4) development. The selection of the good practices for inclusive power of the teaching interventions was conducted through close enactment monitoring and, again, in parallel with Evaluation tool operationalization and improvement.

The first prototype of the Open Online Collection of Good Practices for Inclusion was reached in M30. It is placed in the [PLEIADE Gamified platform](https://moodle.pleiade-project.eu/mod/data/view.php?d=4) (https://moodle.pleiade-project.eu/mod/data/view.php?d=4).

Appendices, presenting re-usable PLEIADE products and tools, accompany the document:

- Enactment planning template;
- Enactment monitoring questionnaires for teacher and observer – in paper and in online format;
- Instructions and a plugin for Database Moodle Activity Setting Up as an online collection;
- Users Guide of the Open Online Collection of Good Practices for inclusion by external users.

2.2 Structure of this document

The document is structured as follow:

- Section 3. provides a general introduction to IO5.
- Section 4. presents in detail the process of enactment planning and monitoring. It describes how the data were collected during the enactment and how the selection of the representative designs and enactments was done.
- Section 5. deals with the technological infrastructure of the collection. It provides the archive preset and instructions on how to install the Database plugin in Moodle LMS, in order to serve as an online collection.
- Section 6. describes the collection structure and functionalities. It provides a User Guide with use-cases on how to explore the library.
- Section 7. provides evidence about the usefulness of the collection, describing the evaluation methods, tools, and results.
- Section 8. outlines the main conclusions and future perspectives.

3. Description of the IO5

Enactment process went through three interweaving phases (Figure 1).

Figure 1. Enactment process

The Preliminary Preparation stage (Figure 2) is a part of the Training phase, described in IO1 (Passarelli, Dagnino, Persico, Pozzi, & Nikolova, 2021). It ensures, by peer-review and tutors' feedback, the quality of the produced designs in terms of indicators for inclusive potential, building the IO4 Evaluation tool.
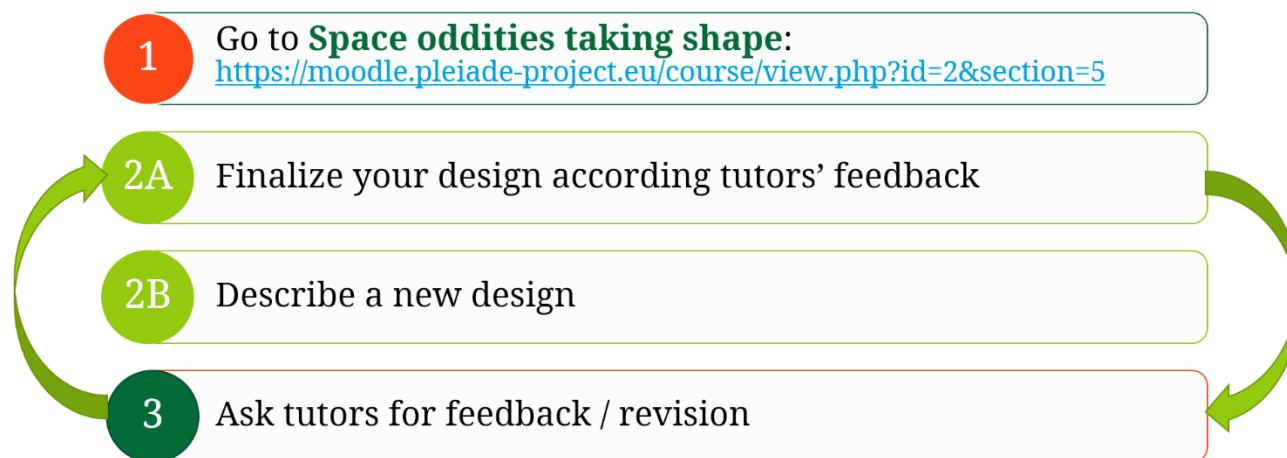
Figure 2. Enactment process

The Enactment monitoring phase included: a) teachers' intervention in the classrooms, implementing the PLEIADE inclusive designs, and concurrently b) the monitoring and supporting activity carried on by the tutors from UniSofia and CNR-ITD. Each enactment passed three stages (Figure 3). During the process, the PLEIADE teachers communicated among them and with tutors through the Gamified platform. In parallel, they provided evidence and documentation of their work in a structured internal PLEIADE repository.

Pre-action

Outer Space in Gamified platform

Instructions

Pre-questionnaires for students

Teachers: Enactment planning table

Dedicated threads in the National and International Enactment forums

Action

Interaction between tutors and peers through the dedicated threads in Outer Space module

- Sharing impressions
- Asking questions
- Taking advices

Online observation, documented in questionnaires

- By Teacher and / or Observer
- Filled after **each** phase / lesson
- Special attention on the collaborative activities and their impact on inclusion

Post-action

Questionnaire for students

Same as pre-questionnaire

Figure 3. PLEIADE Enactment stages

The process of development of the Open Online Collection of Good Practices for Inclusion followed the enactment and monitoring process. During the enactment phase, data about teaching intervention practices were collected internally. At the end of the phase, good practices and highlights from teachers and observers questionnaires were selected and published in the collection.

3.1 Timeline

The IO5 started in M18 (February 2022), as it is planned in the proposal. Following Hargreaves & O'Connor (Hargreaves & O'Connor, 2018) principles, the teachers were stimulated to share and discuss not only their designs but also the experience they gained from the intervention. The activity is important not only for collecting data, but it also supports teachers' professional development. A month later, in M19 (March 2022), the research and development of the platform for Open Online Collection of Good Practices for Inclusion started. The first months, M19 – M24 was dedicated to research and experiments with DSpace (dSPACE, 2023), which seemed to provide conditions for hosting the collection and, at the same time, distributing the metadata to other repositories of Open Educational Resources, like Merlot (MERLOT community, 1997–2023). After the failure of the DSpace experiments, the new research and experiment started, based on the Moodle Database Activity Plugin. The positive results were reached, and the First prototype – the Demo version of the platform, was announced in M30 (February 2023).

In parallel, the Enactment phase was going on. The teachers' interventions were monitored and guided by the ITD-CNR and UniSofia. The intermediate results were

evaluated through the current version of the IO4 Evaluation tool, contributing at the same time to its development.

After M30, the both processes – platform development and collecting good practices of interventions, continued together. The first good practices were added to the collection and used for evaluation of its usability. After refinement, the other half- and fully-tested designs were added to the collection. The Open Online Collection for Good Practices of Inclusion was open for public access in M34 (June 2023) (Figure 4).
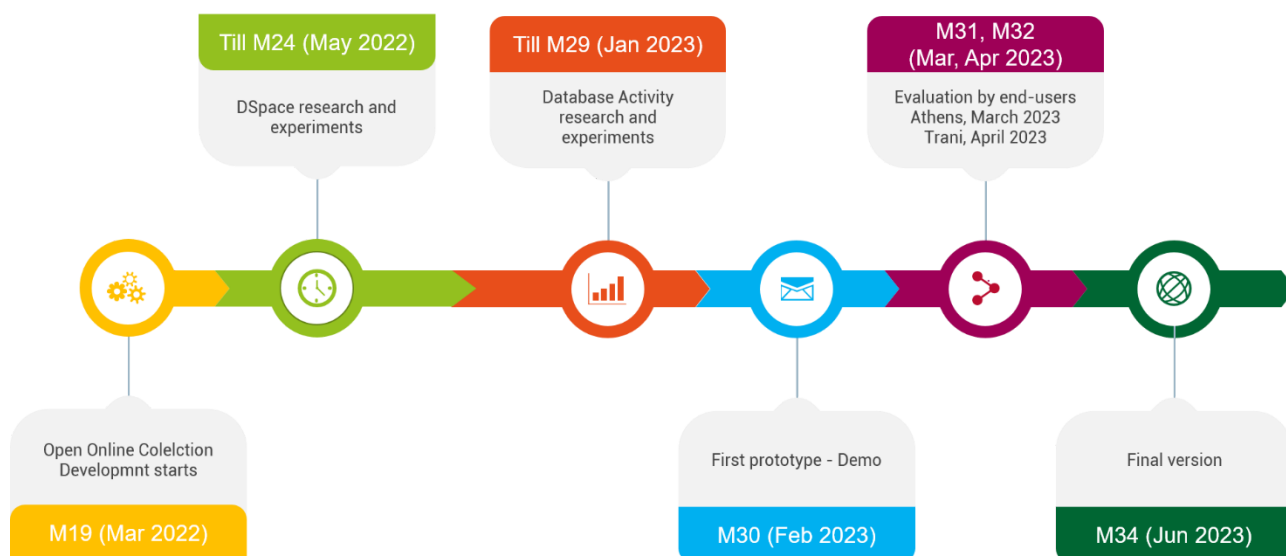
Figure 4. Timeline of the development of the OOL platform

3.2 Partners' contribution

UniSofia was leading the IO5 process, with a strong support of ITD-CNR.

CNR-ITD managed the process of review of the teachers' interventions against the Evaluation tool (IO4) indicators, in parallel with Delphi study performed under IO4.

The planning of the Enactment phase was also managed by CNR-ITD, and transferred for tracking of the implementation by UniSofia.

Both teams were engaged in the monitoring of the teachers' enactment, in the assessment of the inclusive power of the PLEIADE teaching intervention, supporting improvement of their interventions, and selection of PLEIADE "Good Practices for Inclusion" comprising both the Good Design and Good Teaching Practices.

The partnering schools were engaged with the development of good inclusive practices for teachers' interventions and collecting data. They participated actively in the process of peer-review of designs and interventions, taking place in the Validation phase of IO4 and Evaluation phase of IO5. They were responsible also for

translation of the national designs into the English language for publishing in the collection.

UniSofia developed the platform, hosting the Open Online Collection for Good Practices of Inclusion. The team was also responsible for the evaluation of the collection.

The task of distribution of the collected PLEIADE "Good Practices for Inclusion" to other OER databases was also dedicated to the UniSofia team.

4. Enactment monitoring and Data Collection

4.1 Enactment Planning

A smooth transition between the Training and the Enactment phases was provided by carefully planned enactments. Coming to the end of the Training phase, M17 – M19, when in the Gamified platform there were designs that meet the Evaluation tool indicators and were accepted as good practices for inclusive potential, the authors were asked to plan together the pilot enactments of their designs even earlier than required by the proposal. The earlier piloting (M20 – M22) ensured two conditions: 1) enacted designs, which to serve as a **test-bed** for Evaluation tool indicators (IO4) during the SJSTE3 (Sofia, October 5 – 7, 2022), and 2) to ensure **good inclusive practices** of teaching interventions by guiding teachers' teams during the enactment process in line with the Evaluation tool operationalized indicators to assess the inclusive power of the interventions.

To provide a possibility for monitoring and management of the enactment process, careful planning was needed. Even more, while there were ready designs that met the requirement of IO4 for **good inclusive potential**, other designs were still in a stage of improvement. In addition, the process should be transparent and should provide possibilities for both leaders – UniSofia and ITD-CNR, to simultaneously track any of the enactment, taking particular responsibility for guidance to each of them.

To meet the enactment management needs, ITD-CNR developed the **Enactment Planning tool**, shared through the PLEIADE Google Drive. The tool provided a template for the planning of each enactment. The teachers are required to provide information about:

- Design title
- Planned start and end dates of the enactment
- Planned dates for synchronous meetings
- Detailed information about each of the participating students' classes:
    - country;
    - class identifier (example 3rd 'A' grade);
    - names of the teachers and the discipline;
    - number of total students in the class, and the number of students of each gender;
    - students average age;
    - a thorough description of the students, especially of these ones, who are threatened with social exclusion.

The **Enactment planning template** tool is available in Appendix 1.

4.2 Enactment implementation

The Enactment phase started at M18 (February 2022). For 14 months they were engaged with the enactment of the designs with a good inclusive potential in their classrooms, revealing designs' inclusive power (Figure 5).
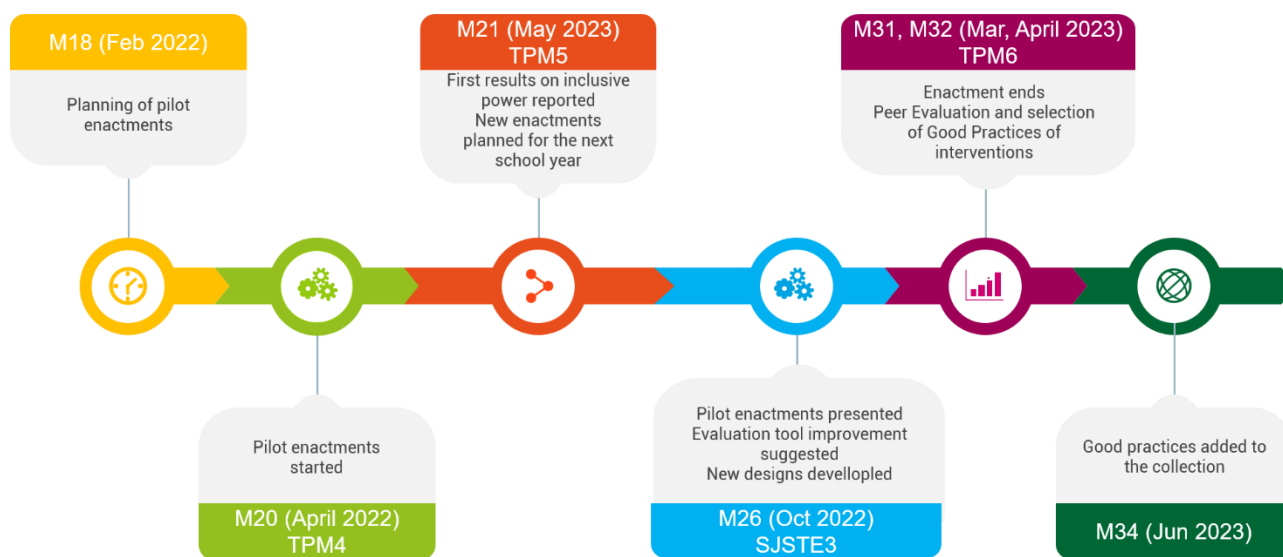

Figure 5. School efforts in exploration of the inclusive power of the PLEIADE designs

The first two months of the period, they prepared first good (according to the IO4 evaluation) designs for pilot enactments in the classrooms.

During the TPM4 (Sestri Levante, Italy) the teachers had a first chance to meet each other and to share their ideas and troubles face-to-face. Overcoming the communication barriers, they negotiated together the pilot enactments. Five national and three international enactments were planned to be conducted until the end of the school year. One of the national designs failed during the first enactment period. The first successful results were reported during the TPM5 in Trani, Italy, providing also experience about good intervention practices and challenges that the teachers met. The pilot designs, fully or partially implemented to the end of the school year were:

- International:
  - Independence (first part) – Italy, Greece, Cyprus
  - Pythagorean theorem – Cyprus, Greece
  - Traditions – Cyprus, Bulgaria
- National
  - National day of Bulgaria (partially) – Bulgaria

        o   The beginning of Bulgaria (first edition) – Bulgaria
        o   A day at the Parthenon – Greece
        o   Dalla parte giusta – Italy

During SJSTE3 in October 2023 in Sofia, the involved teachers shared their plans for enactment, the main barriers, how the process had changed and why. They provided reflection, leading to improvement of the evaluation kit, as well as ideas for improvement of the further versions. All the teachers, who participated actively in the first enactments, formulated practical suggestions to their peers on how to achieve maximum inclusive power.

After very productive SJSTE3, under the guidance of the school leaders, the main enactment period started. A total of 8 international and 16 national designs were ready for enactment. At the end, 20 of them were fully enacted in the class, showing high level of inclusive power. Seven designs were re-enacted with other students, striving to achieve even higher level of inclusive power.

During the enactment phase, a couple of teachers developed a new additional design.

The school team leaders put many efforts to manage international and national designs enactments, juggling time constraints, holidays, other responsibilities (e.g. conducting exams) and curriculum differences between countries. They succeeded in involving 31 teachers in the enactment of the international designs. Most of the designs were shared between two countries, but one of them – between three. In the conduction of the national designs, 38 teachers participated (Table 1).

Table 1. Number of teachers involved in the national designs enactments

Country	Total number of Teachers
Bulgaria	6
Cyprus	12
Greece	11
Italy	9
Обща сума	**38**

Some designs were replicated by the same teachers, while others were enacted twice, but by different teams.

4.3 Internal data collection

During the Enactment phase, an internal online data collection was conducted. The reason was to collect all the data from enactments of the good inclusive potential

designs, in order to be able to select the good examples for teachers' interventions among them.

To allow collection of documents, a folder was created on the PLEIADE Google Drive. It was organized into two subfolders – for international enactments, and for national ones. Each enacted design had its own subfolder, containing the ready design description, teaching materials, photos, taken during the enactment, and artifacts, produced by students (Figure 6). The folder also contained real-time evidence for the enactment process and for the inclusive power of a given design. The students' pre- and post-enactment questionnaires, providing information about the changes concerning the inclusion issues, were also uploaded there.
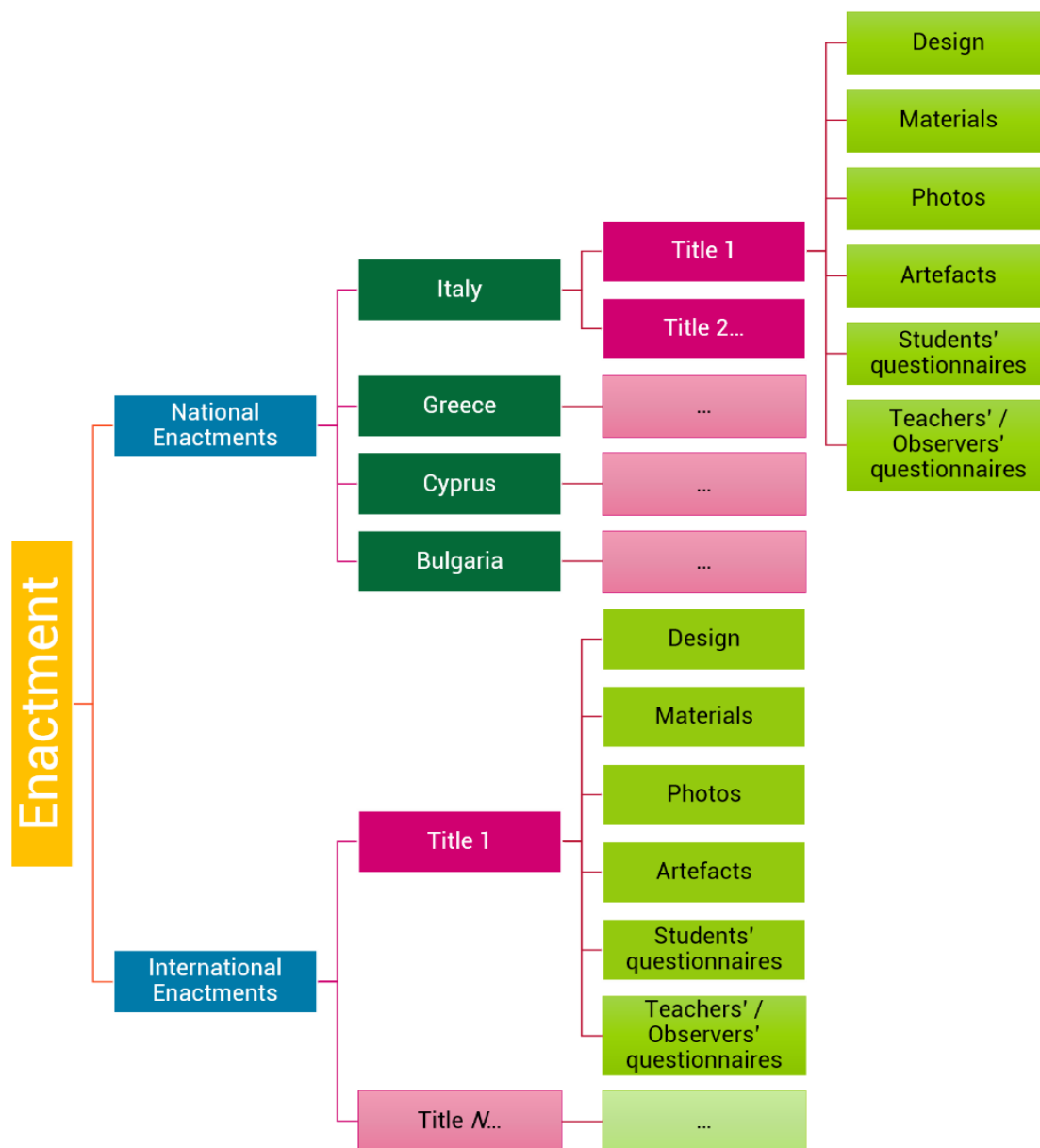

Figure 6. Structure of the internal folder for enactment data collection

The selection of good practices, listed in the Open Online Collection, is made based on provided evidence for the social-inclusive impact of the enactments.

4.4 Enactment monitoring

4.4.1 Enactment monitoring process

The Enactment monitoring process played a key role in the IO5 development. On one hand, it provided a transparent ongoing tracking of the enactment, the possibility to support inclusive teaching, and to select good teaching intervention practices, corresponding to the IO4 indicators for inclusiveness. On the other hand, the observed teaching practices, classrooms' social climate, and particular students at risk of social exclusion, provided valuable feedback for improvement of the IO4 operationalized indicators for inclusive power of the teaching intervention.

The enactment monitoring process was conducted through self-reflection questionnaires filled in by the teachers and face-to-face observation in place carried out by external observers, where it was possible (Figure 7).
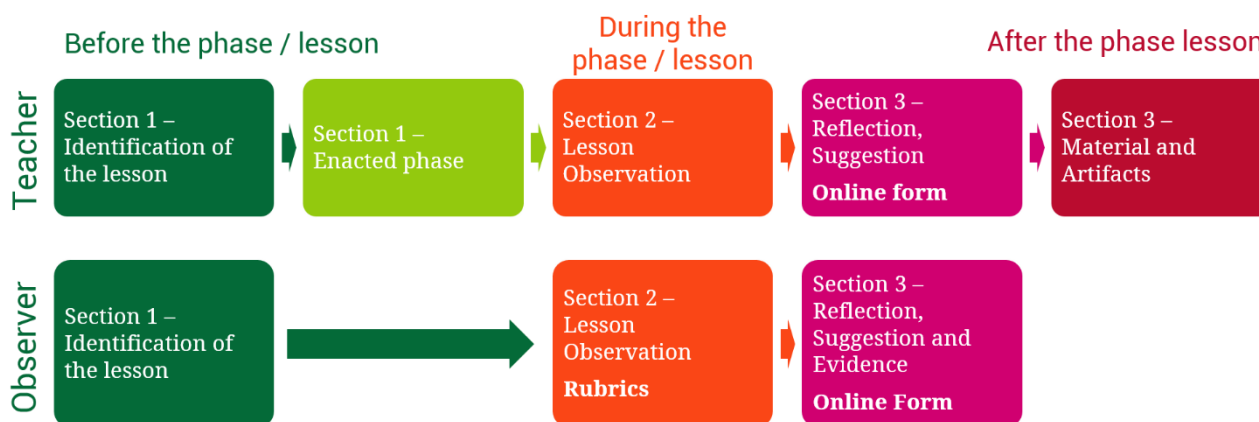
Figure 7. Enactment observation process

4.4.2 Observation tools

For documenting teachers' self-observation and self-reflection, and the observation by external observers, two questionnaires were developed – Appendix 2.

Each questionnaire contains three main sections: 1) Identification metadata; 2) Assessment of inclusive power of the intervention, and 3) General questions section.

Identification data aim to identify the enacting teacher, school & class, the enacted design, which phase / lesson is enacting, and if there are any changes in the design during the enactment.

The assessment data related to the IO4 Evaluation tool of **inclusive power** main criteria. A Likert scale was used to assess the specific inclusive aspects:

- Assessment of collaboration and inclusive aspects
  - Social climate
    - Was the atmosphere relaxed and positive?
    - Did students enjoy this phase of the design?
    - Did students respect each other?
  - Task and time
    - Were the students able to express themselves in different ways?
    - Were the task(s) adequate for the students?
    - Was the time appropriate for the task(s)?
  - Materials and technologies
    - Were the materials suitable for all students?
    - Were the technologies easy to use for all students?
  - Personalization and involvement
    - Did students receive personalized support or material when needed?
  - Team
    - Was the team size and composition adequate to accomplish the proposed task(s)?
- Assessment of collaboration
  - Collaboration
    - Did students play different roles leveraging their strengths?
    - Did students share responsibility for artifact production?
    - Was students' interdependence favored by the task(s)?
- Assessment of international collaboration
  - International collaboration
    - Were students motivated to interact with peers from abroad?
    - Were there issues with the language, technology or other?

For each group of questions, teachers and observers provided free additional description, clarifying the situation.

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The *General questions* section aim at providing insights about adding or refinement of the operationalized questions of the IO4 Evaluation tool for assessment of inclusive power of the enactment, by means of a questionnaire:

- Which features of this lesson did you like? Why?
- Which features of this lesson did you NOT like? Why?
- Please provide any suggestion for revision of this lesson (no answer means no change)

The questionnaires were provided in two formats: paper version and online version. Both are accessible and re-usable. The links for download are provided in Appendix 2.

4.4.3 Enactment tracking

An additional tool was developed for real-time tracking of the enactment process. The tool was stored in the Google Drive folder. It is organized as a spreadsheet, containing three sheets:

- International designs and enactments
- National Designs and enactments
- Useful links.

The International National designs sheets have a common structure.

- Design Identification fields – Design name, Teachers, Country(s) (Figure 8)
- Information about the period(s) of enactment (Figure 9)
- Information about readiness for enactment – pre-action phase (Figure 9)
- Uploaded evidence data
- Provided observation data through the teachers and observers questionnaires
- Links to the specialized thread in the Gamified platform and to dedicated folders in the internal PLEIADE repository
- Translation status (only for national designs)
- Comments – any specific notes, important for other tutors, design authors, or enacting teachers.

	A	B	C	D
1		**Information**		
2	**N**	**Name**	**Teachers**	**Country**
3	1	Geography - easy and interesting	Slavina Nikolova Not enactected	Bulgaria
4	2	National day of Bulgaria	Pavlina Jorova	Bulgaria
5	3	The beginning of Bulgaria	Anita	Bulgaria
6		The beginning of Bulgaria 2 (Bulgarian leaders in the past)	Aksinia Danailova	
7	4	The world of languages	Marieta, Geri	Bulgaria
8	5	~~Study linear motion with constant velocity, using oil pipes~~	Demetra Savva	Cyprus
9	6	The computer devices and their categories_	Eleftherios Lefteri, Panagiota Katsiveli, Evangelia Evangelou	Cyprus

Figure 8. Design identification fields

E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Period				**Students questionnaire**		**Enacment planing table?**	**Design is ready?**	**Uploaded?**				**Filled?**	
Start	**Has started?**	**End**	**Has ended?**	**Initial**	**Final**			**Design**	**Artifacts**	**Photos**	**Materials**	**Teachers questionnair**	**Observer questionnair**
December 2022	Yes	March 23	Yes	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
May 2022	Yes	June	Yes	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
November 2022	Yes	January 2023	Yes	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐
February 2023	Yes	May	Yes	☑	☑	☑	☑	☑	☑	☐	☐	☑	☐
November 2022	Yes		No	☑	☐	☑	☑	☑	☑	☑	☑	☑	☐
April 2022	Yes	September	Yes	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
May/September 2022	Yes	October	Yes	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑
May 2022	Yes	June	Yes	☑	☑	☐	☑	☑	☑	☑	☑	☑	☐

Figure 9. Enactment tracking

Color codes helped for quick recognition of the designs that are in time and of those that need urgent tutors' intervention.

The spreadsheet ensured a big picture about the number of half-baked and fully tested designs at any time (Figure 10).

	Period		Students questionnaire		Enacment planing table?	Design is ready?	Design Translated	Uploaded?			
Has started?	End	Has ended?	Initial	Final				Design	Artifacts	Photos	Materials
Yes	?	Yes	✓	✓	✓	✓	✓	✓	✓	✓	✓
Yes	December 2022	Yes	✓	✓	☐	✓	✓	✓	☐	✓	☐
			☐	☐	☐	☐	☐	☐	☐	✓	☐
yes	17 March 2023	no	✓	✓	✓	☐	☐	☐	☐	✓	☐
-	-	-	-	-	-	✓	✓	✓	-	-	-
-	-	-	-	-	-	☐	☐	✓	-	-	-
		Count	12	12	15	17	11	15	8	11	8

Figure 10. Level of readiness for transfer to the Open Online Collection of Good Practices

The Google sheets turned out to be comfortable tools for communication among tutors and between tutors and authors (Figure 11). Thanks to this feature, the tutors from both teams – UniSofia and CNR-ITD exchanged information about the status and supported involved teachers.

National, I19 | FALSE

Станислав Иванов
23:36 ч. 24.01

Not sure where are. May be in the task

Marcello Passarelli
18:29 ч. 29.03

I have them in my mail, but I have to ask for them again because the picture quality makes them unusable

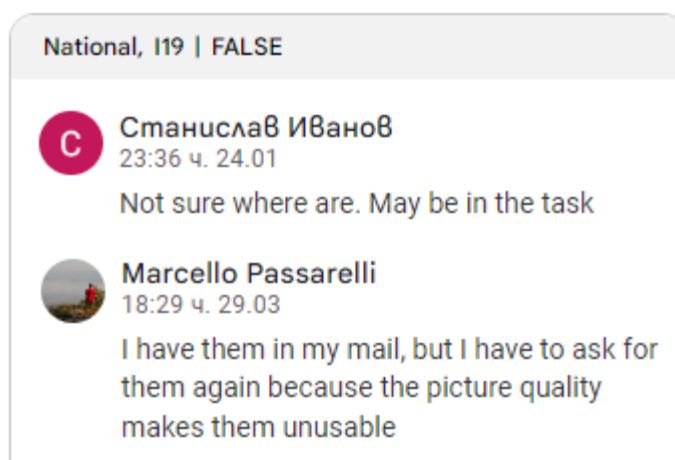*Figure 11. Intensive communication via Comments tool, integrated with the Tracking tool*

The *Useful links* sheets supported all the participants in the navigation among different online storages for specific data.

4.5 Selection of good practices

The Open Online Collection of Good Practice designs of collaborative activities should meet the following requirements:

- Specifically oriented towards an inclusive pedagogy

- Selected on the basis of their innovative and inclusive potential
- The selection had to be made through a peer review procedure based on the Evaluation kit for inclusion-oriented collaborative learning activities [O4].

To meet the requirements, the selection process started as soon as the first draft list of the evaluation criteria (IO4) was developed. During the Outer space module of the BTA (Training phase) almost all the designs were uploaded on the PLEIADE Gamified platform. The process of improvement of the designs according to the current list of inclusive criteria continued during the Enactment phase.

In some cases, teachers - inspired by the first pilot enactments presented during SJSTE 3 - went to new ideas for inclusive designs. Some of them were developed and even enacted later. At the same time, the piloting teachers shared their problems and inspirations. They became a base for peer review of the pilot designs, supported by the First draft of evaluation criteria of inclusive power and for new suggestions for improvement in the list of criteria. The process of interaction between the Evaluation tool and the enacted designs continued until the end of the Enactment phase (Figure 12).

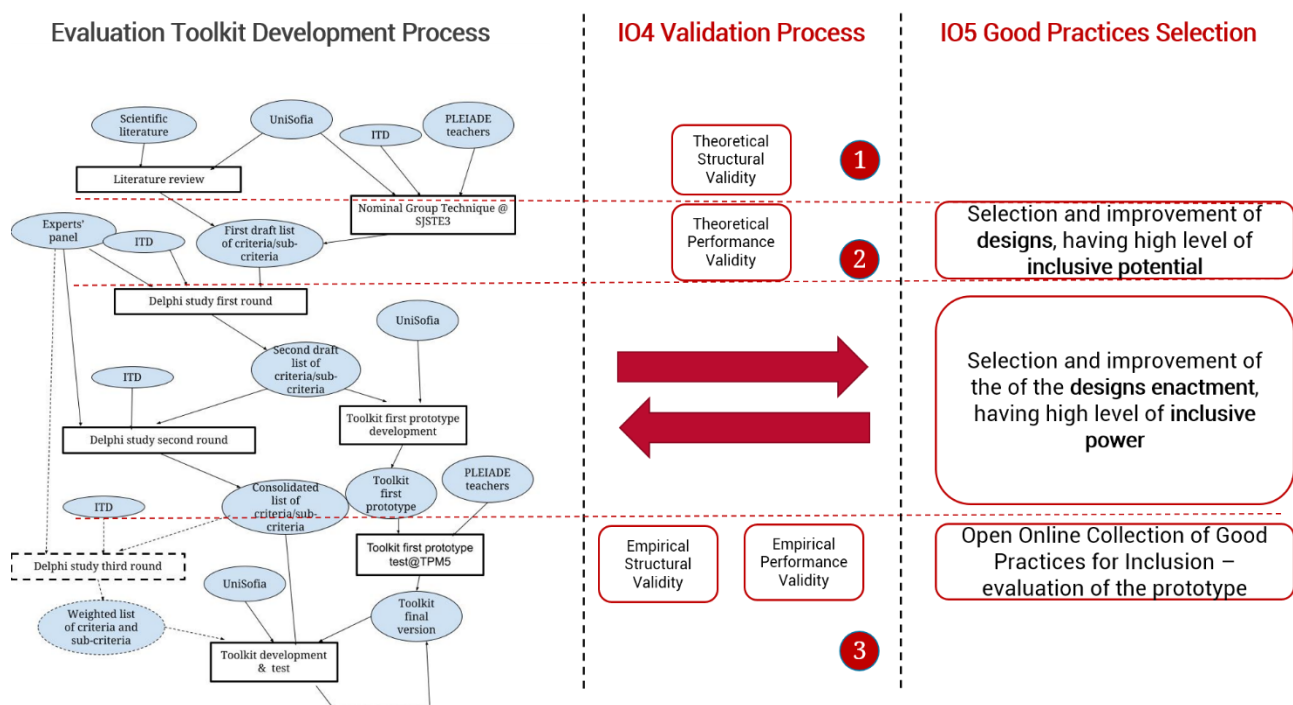*Figure 12. Selection of good practices of inclusion through interactions between IO4 and IO5*

As a result, all the designs that had at least three inclusive stars (assessed by the authors), and an average score for the **inclusive potential** of three (evaluated through the Evaluation kit by peers and tutors), were selected to be published in the Open Online Collection of Good Practices for Inclusion.

The **inclusive power** was assessed only for the enacted designs. The designs, which were fully enacted and which had more than three marks (average) on **inclusive power**, were included in the OOC for Good Practices for inclusion as "fully tested designs". The designs, having high level (more than three marks) of **inclusive potential**, but which were not fully enacted, are presented as "half-baked designs". A design, developed by the PLEIADE tutors as an example for teachers, is also published.

Table 2 presents the designs published in the collection.

Table 2. List of designs, published in the collection

N	Name	National / International	Countries	Full- or Half-baked
1	Traditions	international	Cyprus, Bulgaria	full-baked
2	Pythagorean theorem	international	Cyprus, Greece	full-baked
3	The characteristic of ancient Greek classical art (sculpture)	international	Cyprus, Greece	full-baked
4	Olive tree praise	international	Greece, Bulgaria	full-baked
5	Musical landscapes	international	Italy, Bulgaria	full-baked
6	We are constellations!	international	Italy, Finland[3]	full-baked
7	A refugee tale	international	Italy, Greece	full-baked
8	Independence	international	Italy, Greece, Cyprus	full-baked
9	National day of Bulgaria	national	Bulgaria	full-baked
10	The beginning of Bulgaria	national	Bulgaria	full-baked
11	The world of languages	national	Bulgaria	full-baked
12	The computer devices and their categories_	national	Cyprus	full-baked
13	The divine intervention in people's lives in Euripides' Helen	national	Cyprus	full-baked
21	Healthy mind lives in a healthy body	national	Cyprus	full-baked
14	A day at the Parthenon	national	Greece	full-baked
15	A new Magna Carta for inclusive education by students - a collective artefact	national	Greece	full-baked
16	Fake news	national	Bulgaria	full-baked
17	A casa amici o nemici	national	Italy	full-baked
18	Dalla parte giusta	national	Italy	full-baked

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[3] This design was produced by the Italian and the Bulgarian school and then it was enacted by Italy only, together with a Finnish school i.e. a school not involved in the PLEIADE partnership. In any case, this should be considered an international design.

N	Name	National / International	Countries	Full- or Half-baked
19	Learn by playing	national	Italy	full-baked
20	Geography - easy and interesting	national	Bulgaria	half-baked
21	Eleanor Roosevelt	national	Bulgaria	tutors' example

5. Open Online Collection of Good Practices for Inclusion: Technological Infrastructure

5.1 Technological Infrastructure, Research, and Experiments with DSpace 7.X

5.1.1 Introduction

In recent years, there has been a growing recognition of the importance of inclusion in various domains, ranging from education and employment to social and cultural activities. In order to promote and share good practices related to inclusion, an open online collection was proposed. This collection aimed to leverage the technological infrastructure provided by DSpace 7.X (dSPACE, 2023), a widely used open-source platform for managing digital assets. However, despite its potential benefits, the proposal for the open online collection using DSpace 7.X was ultimately rejected. This section explores the reasons behind this decision and the associated challenges.

5.1.2 Overview of DSpace 7.X

DSpace 7.X is an advanced digital repository platform that enables organizations to manage and preserve their digital assets effectively. It offers features such as metadata management, access control, search functionality, and content curation. DSpace 7.X is widely recognized for its flexibility, scalability, and user-friendly interface, making it an attractive choice for many institutions seeking to manage and share their digital collections.

5.1.3 The Proposal for an Open Online Collection of Good Practices for Inclusion

The proposal aimed to create an open online collection that would serve as a repository of good practices for inclusion across various sectors. It would provide a platform for organizations and individuals to share their successful strategies, initiatives, and case studies related to inclusion. The use of DSpace 7.X was envisioned to facilitate the collection, organization, and dissemination of these valuable resources.

5.1.4 Potential Benefits

By utilizing DSpace 7.X, the open online collection would have leveraged numerous advantages. First and foremost, the platform's robust metadata management capabilities would have allowed for effective categorization and searchability of the

resources, making it easier for users to locate relevant information. Additionally, DSpace's access control features would have enabled the collection's curators to set appropriate permissions for different types of content, ensuring privacy and intellectual property rights. Furthermore, DSpace 7.X's user-friendly interface would have enhanced the overall user experience, making it more accessible to individuals with varying levels of technical expertise.

5.1.5 Reasons for Rejection

Despite the numerous potential benefits, the proposal for the open online collection using DSpace 7.X was rejected for two reasons. Firstly, the review panel expressed concerns about the customization and integration capabilities of DSpace 7.X. The open online collection required specific features and functionalities to support the inclusion-related content, not readily available in the standard DSpace offering. The development and customization required to meet these unique requirements were deemed to be complex, time-consuming, and potentially costly.

Second, there were concerns about the ongoing maintenance and support for the proposed collection. DSpace 7.X, like any software platform, requires continuous updates, bug fixes, and technical support to ensure its smooth operation. The sustainability of the open online collection, including ongoing funding and resources to maintain and enhance the platform, was a significant concern for the reviewers.

5.1.6 Conclusion

While the proposal for an open online collection of good practices for inclusion using DSpace 7.X shows significant potential, it was rejected due to concerns surrounding customization, and long-term maintenance. The decision highlights the importance of thoroughly evaluating the technical infrastructure, associated costs, and support mechanisms before embarking on large-scale initiatives. Nonetheless, the rejection should not discourage further exploration of innovative technological solutions for promoting inclusion, as the pursuit of inclusion remains a crucial endeavor for a diverse and inclusive society.

5.2 Technological Infrastructure, Research, and Experiments with Moodle Database Activity Plugin

5.2.1 Introduction

After DSpace was rejected as a base for technological infrastructure for Open Online Collection for Good Practices, a new potential solution was provided by the Moodle Database Activity plugin, an extension of the Moodle learning management system (Moodle community, 2020). This article

explores the reasons behind the acceptance of the open online collection using the Moodle Database Activity plugin and highlights the benefits it offers.

5.2.2 Overview of Moodle Database Activity Plugin

Moodle is a widely used open-source learning management system that enables educators and institutions to deliver online courses. The Moodle Database Activity plugin is an extension that allows for the creation of collaborative databases within the Moodle platform. It provides a user-friendly interface and flexible features for managing, organizing, and sharing various types of content.

5.2.3 The Proposal for an Open Online Collection of Good Practices for Inclusion

The proposal sought to establish an open online collection that serves as a repository of good practices for inclusion. The goal was to gather and share successful strategies, initiatives, and case studies related to promoting inclusion in different contexts. The utilization of the Moodle Database Activity plugin was envisioned to provide a robust technological infrastructure for curating and disseminating these valuable resources.

5.2.4 Benefits and Features of Moodle Database Activity Plugin

The acceptance of the proposal for the open online collection using the Moodle Database Activity plugin was based on the numerous benefits it offers. Firstly, the plugin provides a collaborative environment where users can contribute their own good practices or experiences, fostering a sense of community and engagement. This participatory approach allows for a diverse range of perspectives and insights, enriching the collection.

Secondly, the Moodle Database Activity plugin offers extensive customization options, enabling the collection's curators to tailor the platform to their specific needs. This flexibility ensures that the collection can be organized and presented in a way that best serves the inclusion-related content. The plugin allows for the creation of custom fields, templates, and filters, enabling curators to categorize and search for resources effectively.

Furthermore, the Moodle Database Activity plugin supports multiple content types, such as text, images, files, and multimedia. This versatility allows for the inclusion of a wide range of resources, making the collection more engaging and accessible to users with different learning preferences and abilities.

5.2.5 Research and Experiments

The acceptance of the proposal was also influenced by previous research and experiments conducted with the Moodle Database Activity plugin. Studies have highlighted the effectiveness of the plugin in facilitating collaboration and knowledge sharing among learners. The ability to interact with peers, contribute to the collection, and access a diverse range of resources fosters a dynamic learning experience.

Additionally, experiments with the Moodle Database Activity plugin in the context of inclusion initiatives have demonstrated positive outcomes. The plugin's features, such as customizable fields and templates, have been utilized to collect and present inclusion-related data effectively. This has led to improved knowledge sharing, increased collaboration, and enhanced understanding of inclusive practices.

5.2.6 Conclusion

The acceptance of the proposal for an open online collection of good practices for inclusion using the Moodle Database Activity plugin underscores its benefits in fostering collaboration, customization, and inclusivity. The plugin's user-friendly interface, customization options, and support for multiple content types make it a suitable technological infrastructure for curating and sharing valuable resources related to inclusion. By leveraging these capabilities, the open online collection can effectively promote and disseminate good practices, contributing to a more inclusive society.

5.3 Database Activity: Technological solution and reusability

This section provides step-by-step instructions on how to set up and use the database activity in your own Moodle course. Users will be able to upload and add a description of their good practices for inclusion as well as comments and rates on them.

The instructions are available also as a standalone **User Guide for Setting Up a Database Activity as an Online Collection** at:
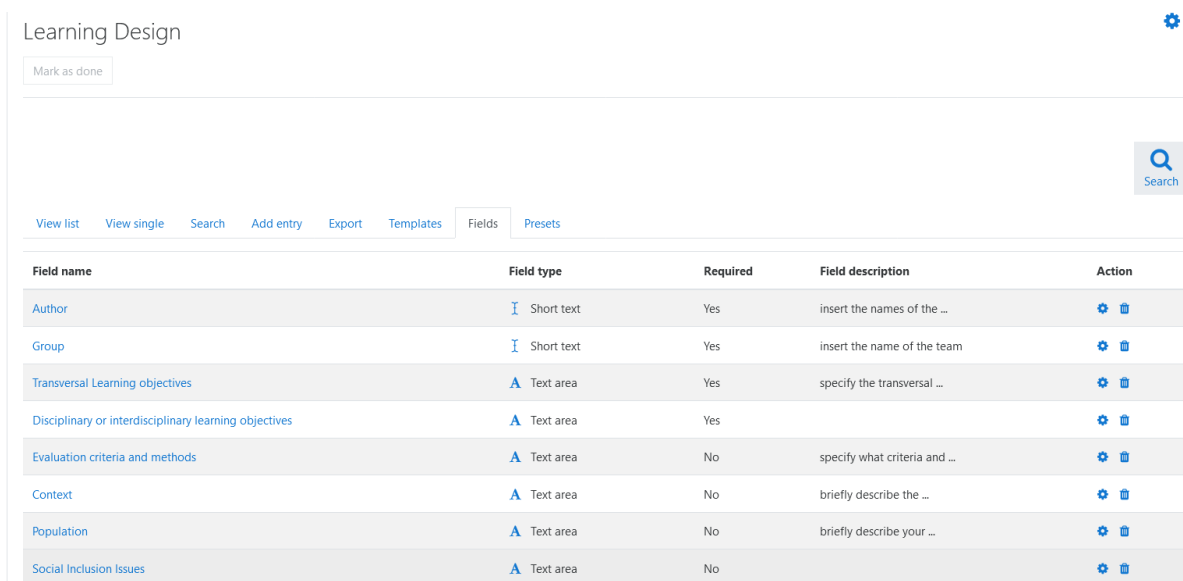https://drive.google.com/file/d/1d_G7lYSxUT0AXRcHYmc4XoXQRfJGiYF_/view?usp=sharing (Appendix 1).

The PLEIADE team offers a preset saved in a zip file (Appendix 1):

Learning Design-preset-20230704_0905.zip

It enables collection users to upload learning designs of good practices for inclusion in Moodle courses. Users upload and add a description of learning designs as well as comment and rate them.

First, the zip file should be saved on a local computer and after that be imported into the database activity in your own Moodle course as described in the following steps.

The set of fields in Learning Design-preset-20230704_0905.zip preset includes: Title, Description, Phases, Tasks, etc. The template could be used and adapted according to customs needs (Figure 13. Learning design preset fieldsFigure 13).

Figure 13. Learning design preset fields

5.3.1 How to Add the Database Activity to a Course

1. Add a database activity to your course.
   a. Select the **Turn editing on** button on the top right.
   b. Select **Add an activity or resource** in the course section where you want to add the activity.
   c. Select **Database** from the list of activities.
2. In **the General section**, complete the activity settings:
   a. In the **Name field (required field)**, enter the name of the database. It is displayed on the course main page.
   b. In the **Description field**, enter the purpose of the database and give instructions for users.
   c. Select the **Display description** on the course page field/checkbox if you want to show the description on the course main page.
3. In the **Entries section**, select the desired options:

    a. You can select **Yes** from the **Approval required** drop-down menu if you want to validate the submissions before they are made visible.

    b. You can select **Yes** or **No** from the **Allow editing of approved entries** drop-down menu (if the previous step is done).

    c. You can select **Yes** from the **Allow comments** on entries drop-down menu if you want users to comment on the entries. As the instructor, you can add comments too.

    d. You can select the number of Entries required before viewing from the drop-down menu if you want to require users to upload their entries before they can view their peers' entries.

    e. You can select the Maximum number of entries you want to allow from the drop-down menu.

4. In the **Ratings section**, if you want to provide a grade for users' submissions, select the rating type you want to use from the **Aggregate type** drop-down menu (e.g., average of ratings, count of ratings, maximum rating, minimum rating, or sum of ratings). Note: You can select the **?** icon to learn more about each type.

    a. Select the **Scale type** you want to use from the **Type** drop-down menu and enter the **Maximum grade** (e.g., 10).

    b. Select the **Grade category**, if it is already created in the gradebook.

5. Select the **Save and display** button to save the database activity.

6. Install the preset by **importing the Zip File**.

    a. Select the **Presets tab**.

    b. In the **Import section**, import the Zip file in the **Import from zip file field** (e.g., drag and drop the file from your computer).

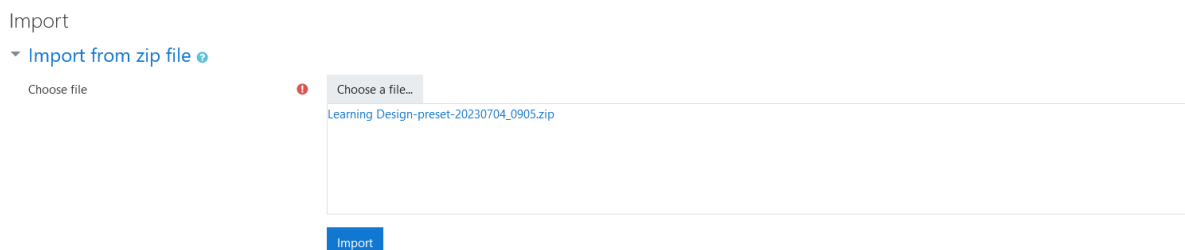   c. Select the **Import** button (Figure 14).

Figure 14. Importing preset

5.3.2 How to Use the Database Activity in your Course

Users use the Add entry tab to add their entries. The list of all entries is available in the View list tab and details of each entry are available in the View single tab. The Search tab can be used to look up entries using keywords.

5.3.3 Add an entry

1. Select the **Add entry** tab.
2. Enter information in the text fields (Figure 15).

Figure 15. Adding an entry

3. Drag and drop **images** or use the file picker icon to locate the file on your computer (Figure 16).
4. In the **Alternative text field**, enter a description of the image for people who are visually impaired and cannot see the image.

Figure 16. Adding images to an entry

5. Select the Save and view button.

Note: You can edit your entry be selecting **Edit** in the top corner when viewing your entry using the **View single** tab (Figure 17).
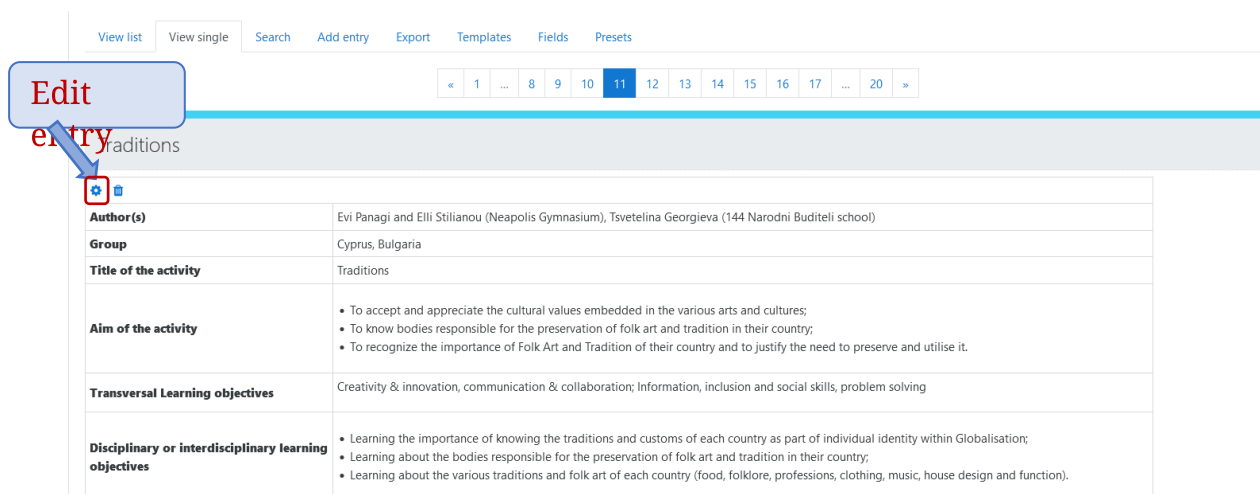
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Figure 17. Entry editing

5.3.4 View entries

There are two display modes in which to view entries:

- The **View list** tab displays all entries on one page. You can select **More** on the bottom right of an entry to display the single view mode and get more information about that entry (Figure 18).
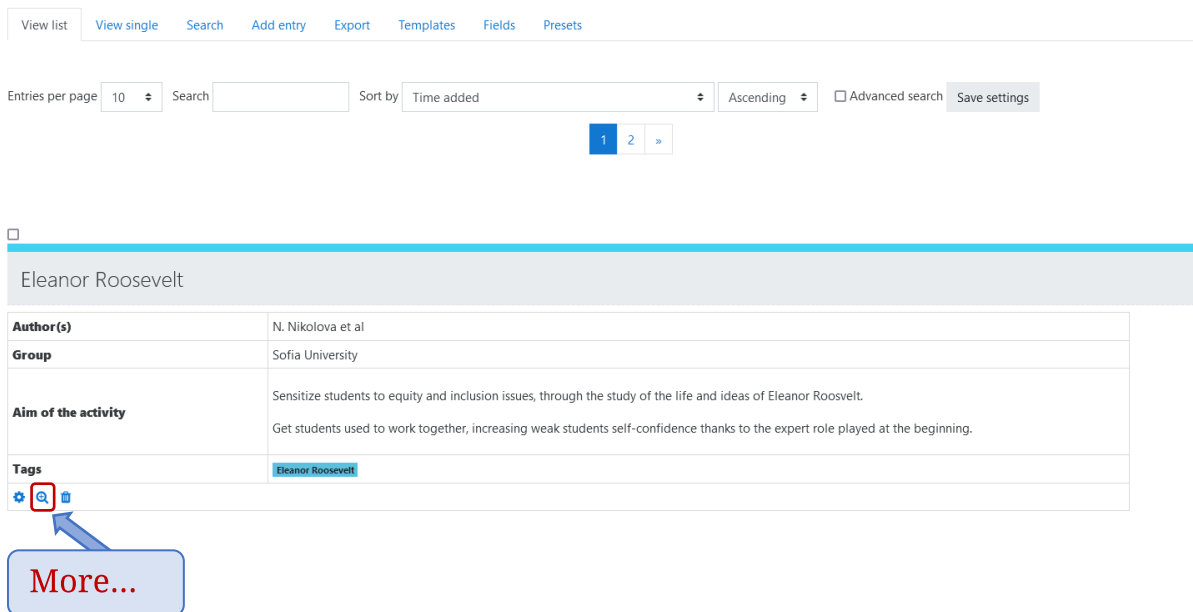

Figure 18. View entries list

- The **View single** tab displays entries individually and provides more details about the entry. To navigate between entries, you can use the numbers or arrows (Figure 19).
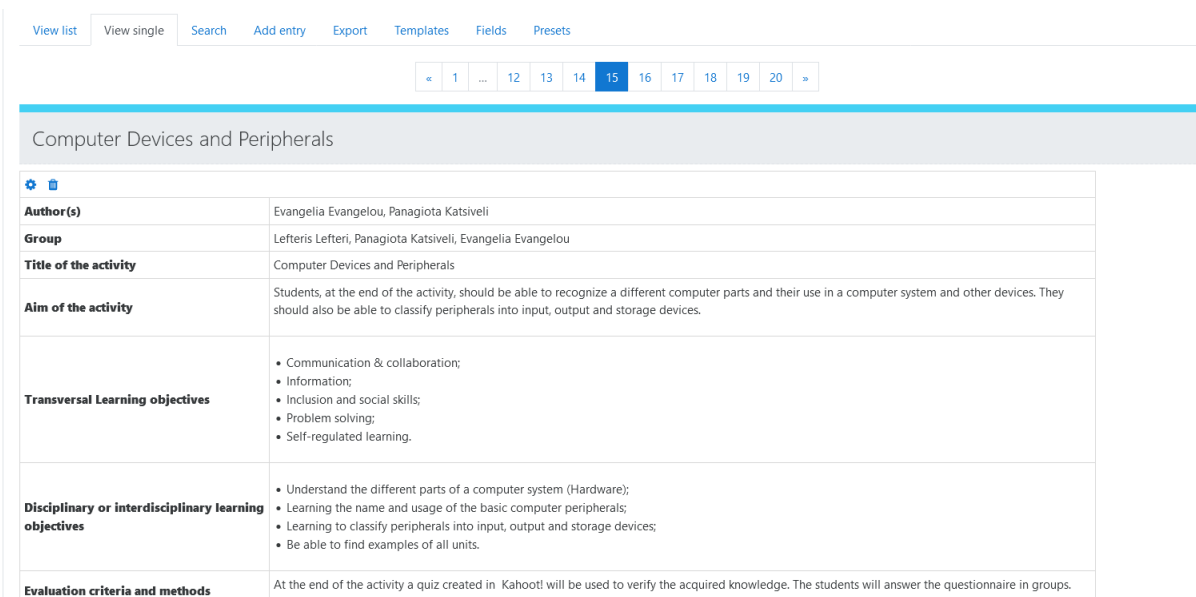
Figure 19. View Single Entry

5.3.5 Add a comment

1. If you selected **Yes** from the **Allow comments** on entries drop-down menu in step above, users and instructors can add entries. They need to select the **More** button on the bottom right of an entry when in the **View list** mode or navigate to the entry using the numbers/arrows when in **View single** mode (Figure 20).
2. Select the **Comments** link below the entry.
3. Enter your comments in the text field.
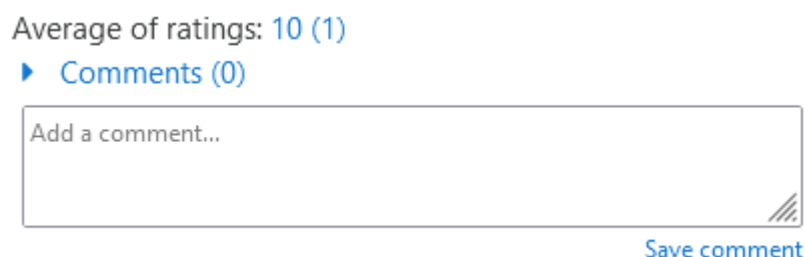4. Select the **Save** comment button.

Figure 20. Adding a comment

5.3.6 Provide a rating

If you have selected a rating option in step above when defining the activity settings, you can provide a rate for entries.

1. Select the **View single** tab.
2. Select a value from the **Ratings drop-down menu** below the entry.
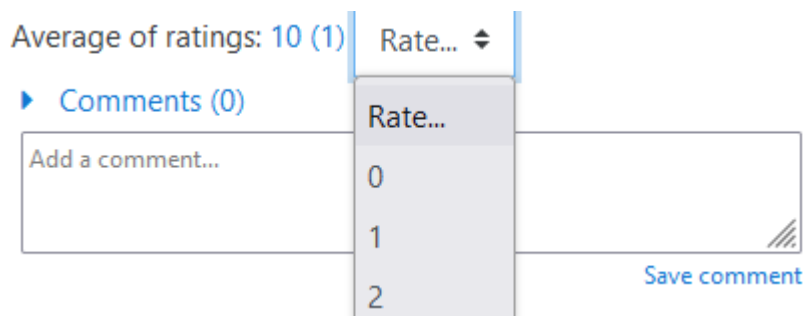3. Navigate to the next entry using the numbers/arrows (Figure 21).

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Figure 21. Rating an entry

5.3.7 How to change the Learning Design Preset

The **Database activity** in Moodle provides four default templates: *List Template*, *Single Template, Advanced Search Template*, and *Add Template*. Templates are used to provide the content that is displayed respectively in the **View list**, **View single**, **Search**, and **Add entry** tabs.

You can add, modify or delete any field in the templates provided by the PLEIADE team that are included in the presets.

How to add a new field to the list of fields

1. Select the **Fields** tab.
2. In the **Create a new field drop-down menu**, choose a new field type (e.g., Text input).
3. In the **Field name** field, enter the name (e.g., Context).
4. Select the checkbox **Required field** (optional).
5. Select the **Add** button.

The new field (e.g., Context) is added to the list of fields as shown in the Figure 22**Error! Reference source not found.**.

Figure 22. Creating a new field in a preset

5.3.7.1 How to add a new field to the template

The sections below provide step-by-step instructions on how to add a new field to the template. You will need to add the new desired field(s) in the different templates (**Add template** and **Single template** are required, but **List template** and **Advanced search template** are optional) so that they are displayed when viewing entries (**View list**, **View single**), when adding a new entry, or when searching for an entry.

5.3.7.1.1 Add the new field to the Add template

The new field is automatically added at the end of the template Add template (at the end of the table).

Fields are presented using the format [[fieldname]].

1. Select the **Templates** tab.
2. Select the **Add Template** tab.
3. Select the **Reset template** button on the bottom left. The new field is now added automatically to the table.
4. Select the **Save template** button.

5.3.7.1.2 Add the new field to the Single template

The new field is automatically added at the end of the template **Single template**. Fields are presented using the format `[[fieldname]]`.

1. Select the **Templates** tab.
2. Select the **Single Template** tab.
3. In the **Single template textbox**, add the new label and field name in the desired position in the template (optional).
   a. Enter the new field in the desired position using the following format: `Label: [[fieldname]]` (e.g., `Context: [[Context]]`).
   b. *Note*: You can also select the name of the new field under **Fields** in the **Available tags** list on the left. In the **Single template textbox**, you need to delete the field that was added automatically at the end of the template.
4. Select the **Save template** button.

5.3.7.1.3 Add the new field to the List template

The new field is not added automatically to the template **List template**. You will need to add it.

1. Select the **Templates** tab.
2. Select the **List Template** tab.
3. In the **Repeated entry** textbox, add a label for the new field in the desired position.
   a. In the **Available tags list**, select the name of the new field under **Fields** (e.g., `Context-[[Context]]`).
4. Select the **Save template** button.

5.3.7.1.4 Add the new field to the Advanced search template

The new field is not added automatically to the template **Advanced search template**. You will need to add it.

1. Select the **Templates tab**.
2. Select the **Advanced search template tab**.

3. Select the **Reset template** button on the bottom left. The new field is now added automatically to the table.
4. Select the **Save template** button.

5.3.7.2 How to modify the name of a field in the list of fields

1. Select the **Fields** tab.
2. Select the **Edit button** in the **Action column**.
3. In the **Field name** field, type the new name.
4. Select the **Save Changes** button.

Moodle will automatically change the name of the field in the **Single template** and **List template**. You need to change the labels if used. For the **Add template** and **Advanced search template**, you need to reset the templates using the following steps:

1. Select the **Templates** tab.
2. Select the Add template or **Advanced search template** tab.
3. Select the **Reset template** button. The field's name is updated automatically.
4. Select the **Save template** button.

5.3.7.3 How to delete a field from the list of fields

1. Select the **Fields** tab.
2. Select the **Delete** button in the Action column.
3. Select the **Continue** button.

Moodle will automatically delete the field in the **Single template** and **List template**. You need to delete the labels if used. For the **Add template** and **Advanced search template**, you need to reset the templates using the following steps:

1. Select the **Templates** tab.
2. Select the **Add template** or **Advanced search template** tab.
3. Select the **Reset template** button. The row in the table including the field is deleted.
4. Select the **Save template** button.

5.3.7.4 How to make a field required in the list of fields

If you would like to make adding content to a field mandatory, you can set that field as required.

1. Select the **Fields** tab.
2. Select the **Edit** button in the **Action column**.
3. Select the **Required** field checkbox.
4. Select the **Save Changes** button.

6. Open Online Collection of Good Practices for inclusion: functionalities

6.1 First prototype

The First prototype of the Open Online Collection of Good Practices (Demo) was reached in January 2023, implemented as an adapted single activity course in PLEIADE Gamified platform (Manganello, Persico, Georgiev, Mihnev, & Peltekov, 2022), based on Moodle LMS. The course consisted of a single Database activity with rearranged presets, corresponding to the PLEIADE learning design template (Passarelli, Dagnino, Persico, Pozzi, & Nikolova, 2021).

The first version of the activity provided the following main functionalities:

- General search
- **View list** of all collaborative designs. In the list, each design was presented by the key fields: **Author(s)**, **Group** (showing whether the design is developed at the national level or in an international group), **Aim of the activity** (very short description, orienting the user whether it is relevant to his needs), **Tags** (keywords, describing the main features of the design).
- **View single** record. The single record is a detailed description of an inclusive collaborative learning design, following the PLEADE 4T template for collaborative inclusive activities.

For each inclusive design, the main described features were:

- Author(s)
- Group
- Title of the activity
- Aim of the activity
- Transversal Learning objectives
- Disciplinary or interdisciplinary learning objectives
- Evaluation criteria and methods
- Context
- Population
- Social Inclusion Issues
- Contents
- Collaborative technique
- Tags
- Phases
- Further materials

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- Enactment description

In the First Prototype (Demo), the number of phases was limited to four. Each phase was presented as a 4T activity corresponding record of four fields: **Task**, **Time**, **Team**, **and Technology**.

For each record, the PLEIADE users were able to provide:

- Rating: 0 – 10 scale
- Comments

After first tests in the Demo collection with selected PLEIADE designs, it was observed that in some designs, there are phases, which contain more than one 4T activity. This fact is reflected in the redesign of the presets in the final version of the collection, allowing more flexibility in the phases' descriptions.

Other improvements related to the Search functionality, according to the teachers' recommendations during the collection evaluation.

6.2 Final Version

The final version of the Open Online Collection of Good Practices for Inclusion is a result of its evaluation by the PLEIADE teachers in the context of its usage as a source of designs and enactments for evaluation through the Evaluation toolkit (IO4).

The collection is publicly available for external users at: https://moodle.pleiade-project.eu/mod/data/view.php?d=4

Comments and ratings are visible for a large audience, but only registered PLEIADE teachers are able to rate an inclusive collaborative design and add a comment. The functionality is restricted due to privacy and security concerns, to keep the collection from attacks of bots or rogue users.

6.2.1 Structure of the designs in the collection

The improved final version still keeps the main features of the First Prototype, following the 4T template for inclusive collaborative design description (Figure 23).

☰ • PLEIADE Gamified platform	English (en) ▾	You are currently using guest access (Log in)

Healthy mind lives in a healthy body

Author(s)	Christina Giorgalli Alexandrou, Zoe Avgousti Mastoroudi
Group	Cyprus
Title of the activity	Healthy mind lives in a healthy body
Aim of the activity	• Encourage children to engage in physical activity; • Help children understand that regular exercise improves their quality of life and promotes longevity; • Emphasize the link between a healthy body and a healthy mind through the benefits of physical activity.
Transversal Learning objectives	• Collaboration; • Communication; • Social skills.
Disciplinary or interdisciplinary learning objectives	• Identify various benefits of physical activity for mental and physical well-being; • Explore the impact of exercise on cognitive function and overall brain health.
Evaluation criteria and methods	The activity entails the preparation of two documents. Both documents will be graded by the teacher. As an incentive, after successful completion of the learning objectives, students can vote on their favorite sport for the next P.E. lesson.
Context	Face-to-face classroom activity.
Population	Lower secondary school students aged 13-14 from Neapolis Gymnasium, consisting of 20 students, half of whom are foreign and the other half from Cyprus. Most students are bilingual in Greek and English, with some facing language difficulties.
Social Inclusion Issues	• **Language barriers**: By providing instructions and resources in both Greek and English, and offering additional support for students with language difficulties, the activity ensures that all students can actively participate and benefit from the learning experience. • **Cultural diversity**: The group activities and discussions are designed to foster teamwork and cooperation among students from diverse backgrounds, encouraging cultural exchange and understanding. • **Educational disparities**: By involving underachieving students in group tasks and offering tailored support, the activity aims to address gaps in knowledge and promote equal learning opportunities for all students.
Contents	The benefits of exercising.
Collaborative technique	Debate
Tags	

Figure 23. Design structure in the Open Online Collection for Good Practices for inclusion

Phases, containing more than one 4T activity, are described by sub-phases (Figure 24).

Phase 1.2	
Task	Students work in groups and search the web and their history books in order to find more information about the topic they were assigned.
Time	2 hours
Team	Small groups 4 small expert groups of mixed abilities students, extroverts with shy (6 students)
Technology	• Search engine - Microsoft Edge; • Text processor - Microsoft Word (to write or copy the information from the web).

Phase 1.3	
Task	Students work in groups and produce collaboratively a synthesis of information concerning the aspect they were assigned to.
Time	1 hours
Team	Small groups 4 small expert groups of mixed abilities students, extroverts with shy (6 students)
Technology	• Microsoft classnotebook; • Microsoft Word; • Paper, colours, photographs

Figure 24. Sub-phases of a phase

In the final version, there is a separate section for a description of teaching materials, provided by the author (Figure 25). All the original materials are accessible as Open Online Resources (OER) under Creative Commons (CC) license for non-commercial use. The other ones are publicly accessible under CC license and refer to the source, or are free for use (without change or redistribution) from the original repository (i.e. YouTube videos or open access students' textbooks). The language of the materials is also noted.
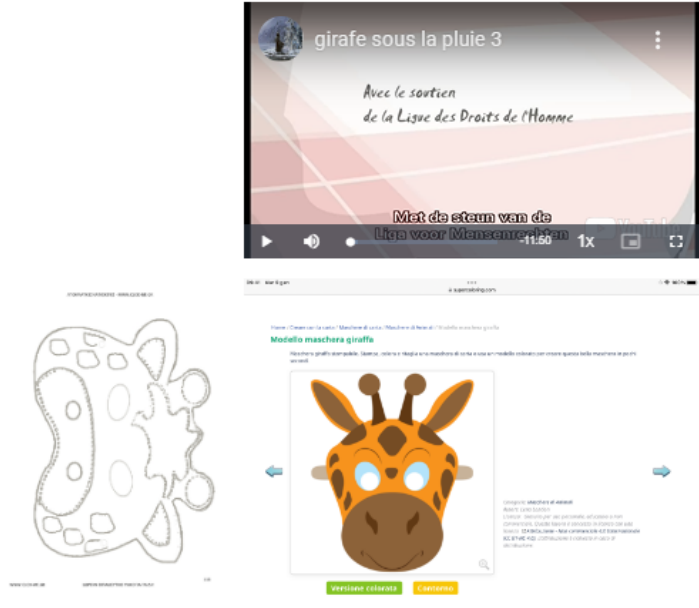
Figure 25. Teaching materials

For the inclusive designs, which are enacted, an additional section, **Highlights from enactments** (Figure 26), is added. The section contains selected **photos, artifacts** and **teachers' and observers' inspirations**, collected during the enactment monitoring. The highlights transfer the feeling of the atmosphere and the social inclusion in the classroom. It is a source for insights for other teachers on what is the real **inclusive power of the enactment**, how the design could be reused, even in a different context, what could be changed at the design level or during the teacher intervention, and what kind of hidden potential could be revealed during the enactment.

Figure 26. Sense of atmosphere conveyed through the Highlights from the enactments

6.2.2 Designs' views in the collection

6.2.2.1 List view

The default view, when a user visits the collection of good practices for inclusion, is the **View List** (Figure 27).

Figure 27. List view of the designs

The visitor can select how many designs to be listed on a page, and how they to be ordered.

Under this view, the user can list all the designs, taking a picture of them on the base of the **title**, **aims**, and **tags**. It is particularly useful, when a teacher is looking for an idea on how to approach a specific issue of inclusion or would like to develop specific students' competences. The tags could provide different insights about relevant subjects, multidisciplinarity, specific technologies, etc.

The magnifier tool enables a single detailed view of a chosen design (Figure 28).
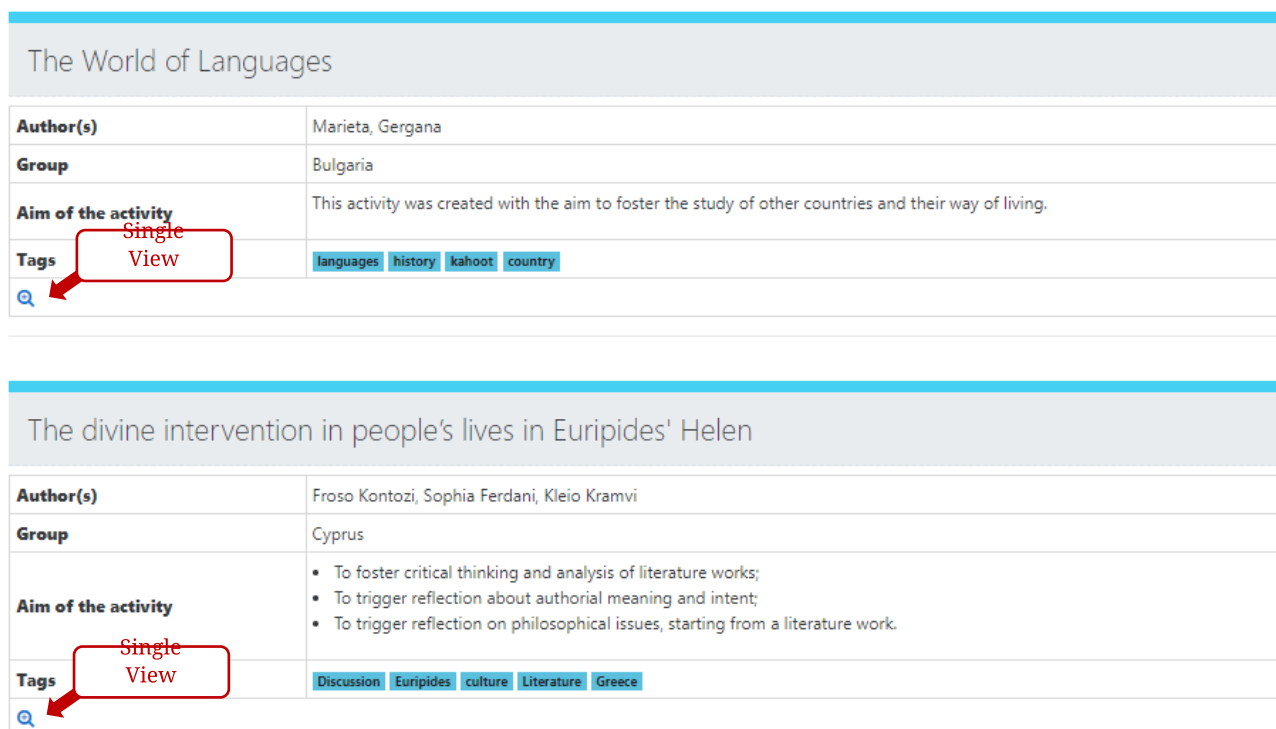

Figure 28. List view of the designs in the collection

6.2.2.2 Single view

The **View single** tab provides a detailed description of a chosen inclusive design (Figure 29). Each design is listed on a separate page.
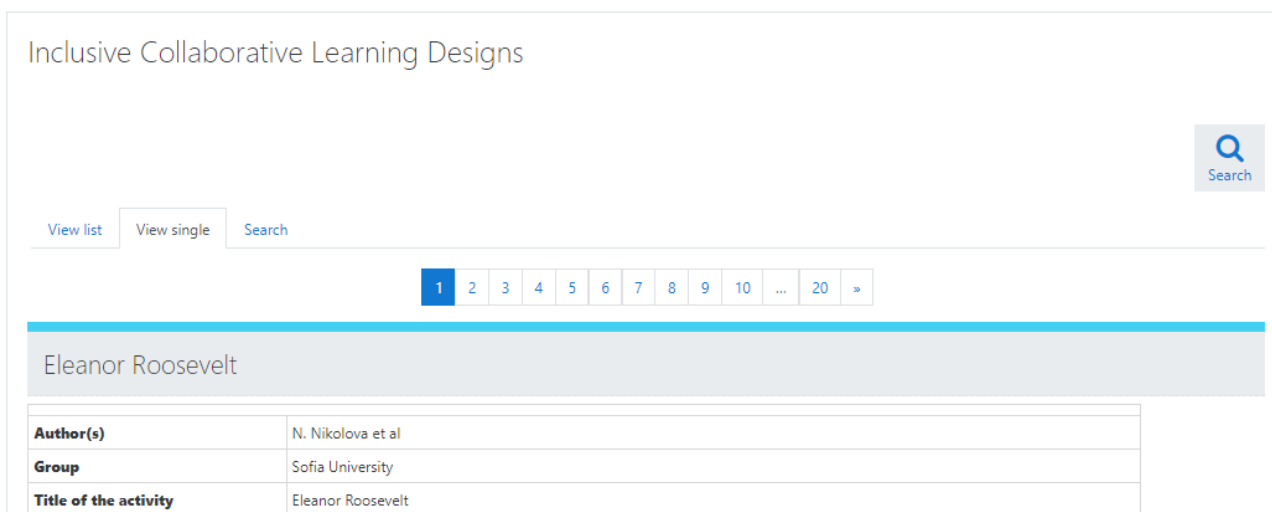
Figure 29. Single view mode of the collection

6.2.3 The Search tool

6.2.3.1 Simple search

The **Simple Search tool** is available above the list of designs under the **View list mode** (Figure 30). It provides a possibility for searching a keyword or phrase anywhere in the designs' descriptions. The user can modify the number of listed records on a page or their order.
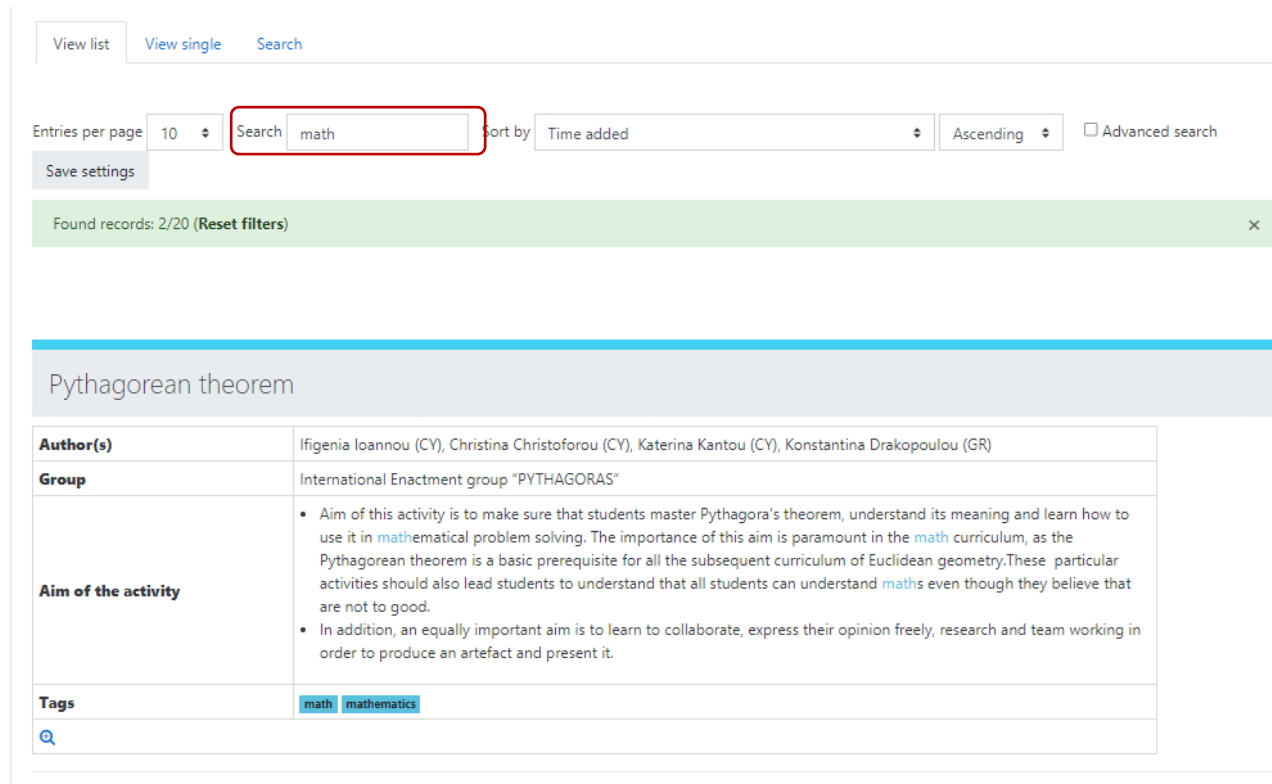

Figure 30. Simple Search tool

6.2.3.2 Advanced Search

In case of need of more precise search in specific fields, an Advanced Search tool is available. It is accessible through the magnifier tool to the top right corner of the collection, or through the checkbox **Advanced Search** in the **Search mode** (Figure 31).
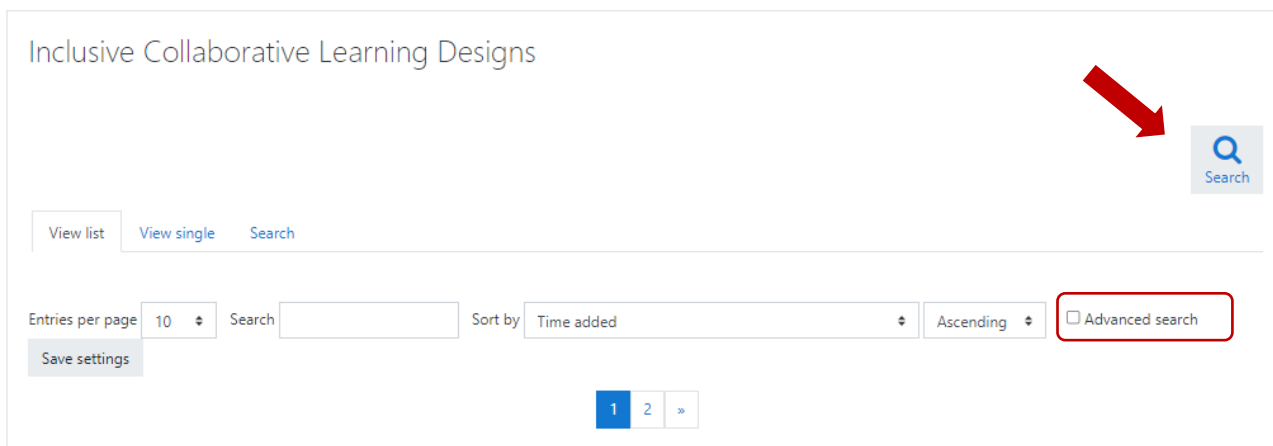
Figure 31. Advanced Search tool

The tool provides searching by **Author**, **Group (national or international)**, **Learning subject**, **Age or grade of students**, and **Tags** (Figure 32).
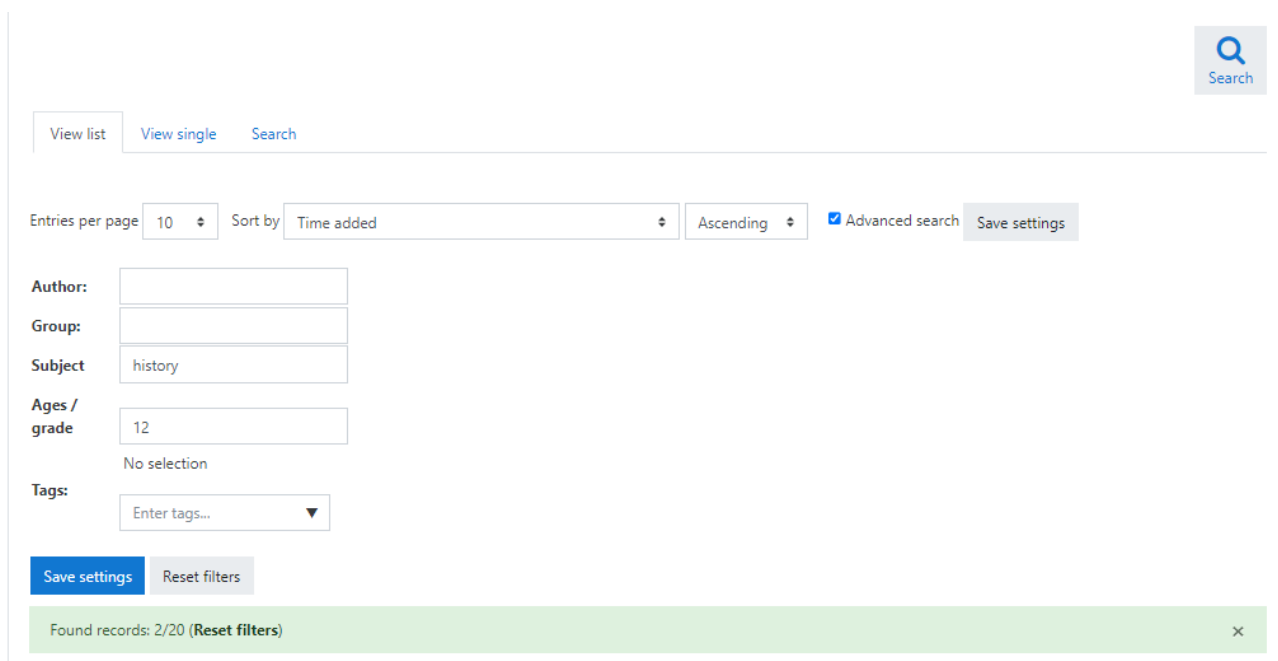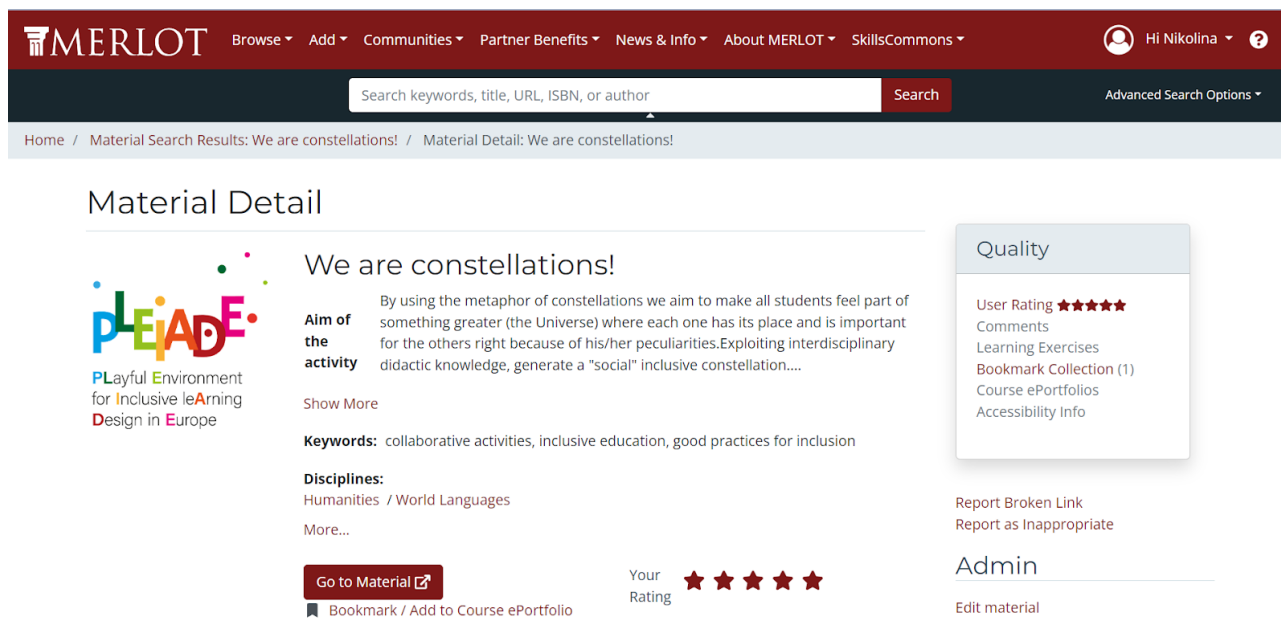
Figure 32. Advanced Search fields

6.3 Popularization

As intended, the PLEIADE **Open Online collection of Good Practices for Inclusion** is distributed also through the Merlot portal (https://merlot.org/). The portal for Open Educational Resources provides wide availability of the PLEIADE good practices for external users looking how to improve the inclusiveness of their classrooms (Figure 33).

Figure 33. PLEIADE Good Practices distributed through Merlot.

6.4 User Guide

For external users, a User Guide, describing typical use-case is provided in Appendix 5.

7. Evaluation of the Open Online Collection of Good Practices

The PLEIADE project aims to create a **Collection of good practices for inclusion** (IO5) of tested scenarios for inclusive learning designs. During the previous stages of the project, CNR-ITD experts supported the work of teachers from Italy, Cyprus, Greece, and Bulgaria to create inclusive learning designs. As a product of peer review and guidance by mentors, based on the current versions of the Evaluation kit (IO4), the designs are self-modeled. Some of the models have been tested in a real environment. The process of enactment was closely monitored by the ITD-CNR and UniSofia teams, which encouraged the teachers to achieve ever-higher levels of **inclusive power**.

During the second phase of enactment (starting in September 2023), the Open Online Collection, based on the Moodle Database activity plugin was developed, and, in February 2023, the first prototype of the collection was reached.

7.1 Aims of the evaluation process

According to the proposal, one of the roles of the Open Online Collection is to *attract a wider community of interested teachers during and, more importantly, after the conclusion of the project co-funding period*. The collection should provide **re-usability** of designs and **transferability** of teaching practices in other contexts.

The aim of the evaluation process is to validate the usefulness of the collection in terms of easy orientation, search, and getting insights about the reuse of shared designs.

7.2 Evaluation methodology

The **Open Online Collection for Good Practices for Inclusion** is developed in close connection with the development of the Evaluation kit for inclusion-aware collaborative learning activities [O4] and with the enactment phase of the PLEIADE project.

The prototype of the collection was introduced in February 2023. Its evaluation by the PLEIADE teachers was performed in parallel with the assessment of the Empirical Performance Validity of the Evaluation toolkit in March 2023, during TPM5 in Athens, and in April 2023, as a satellite activity of the Multiplier Event in Trani.

The Open Online Collection has a dual role: to share publicly "**Good design practices for inclusion**" and "**Good teaching practices for inclusion**" on one hand, and to serve as a test-bed for the indicators of the Evaluation kit (IO4).

7.2.1 Methods and tools

The OOC evaluation process was deeply interwoven with the validation of the IO4 Evaluation kit process, which is reasoned by its dual role.

To evaluate its capability to distribute good practices for design and teaching in an inclusive way, and to use it as a test-bed for the IO4 Evaluation tool, a complex activity for teachers was designed.

Working in groups – each group on a separate design, they should complete the following instructions:

1. *Go to the PLEIADE Open online collection of good practices for inclusion (Demo): https://moodle.pleiade-project.eu/mod/data/view.php?id=348.*
2. *Split into two approximately equal-sized subgroups.*
3. *Open the scenario, chosen by your facilitator. Use the lens tool:*
4. *Subgroup 1: Evaluate the design, using the Design Potential Evaluation Tool.*
5. *Subgroup 2: Evaluate the design enactment, using the Design Power Evaluation Tool.*
6. *Rate the design*
7. *Provide comments*
8. *Think / comment in the group aloud, while you are working.*
9. *Share your experience of the evaluation process by checking the relevant emoji in the table below[4].*

The activity was performed twice:

- During TPM5 in Athens, on March 13, 2022.
  The teachers were distributed among four heterogeneous groups (teachers from different countries in each group). Each group should work on a preliminary chosen design and share the filled-in Evaluation tools in a shared padlet:
  https://padlet.com/nnikolova73/pleiade-evaluation-tool-validity-wbpganmyoeacez4a

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[4] The table serves the validation of the IO4 Evaluation tool and it is presented in IO4 enclosed document.

- During the Multiplier Event   in Trani, on April 18, 2023.
  The teachers worked in two groups, evaluating two Italian national designs by the IO4 Evaluation tool for multiple users.

The following data was collected during the activity:

- The filled-in IO4 Evaluation tools
- Information about the participants" perceptions, difficulties they met, impressions, etc. by direct observation and with the use of Think Aloud Protocol (TAP)[5], which in the first part collects data about the usage of the Evaluation tool, and in the second section about the online collection (Appendix 4).
- Informal quantitative data by emoji stickers, presenting the overall perceptions of the usage of the collection.

7.2.2 Data collected

During the two editions of the activity, four successfully filled-in Evaluation tools for individual users were submitted to the padlet. The tools were used and submitted without help from the mentors.

The collected results from the evaluation of two designs and enactment by the Evaluation tool for multiple users are received. 27 records from 27 participants are collected.

The fact that no one met difficulties in finding the relevant design description in the collection, navigating through it, and answering the questions in the Evaluation tool, shows that the way for navigation and orientation in the collection is intuitive enough for untrained users.

The assumption is confirmed by the data collected through the Think Aloud Protocol. The main features of the Open Online Collection for Good Practices of Inclusion, documented in TAP, are:

1. Orientation in the collection.
2. Finding a relevant design.
3. Usage of a search tool for finding other designs.
4. Readiness of the selected design (in terms of its full and clear description, providing enough information to be re-used).
5. Identification of the enactment description.
6. Rating – identification of the tool and providing a rating.

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[5] The tool is presented in the IO4 accompanying document.

7. Commenting – Identification of the tool and providing a comment; reading others' comments.

All of the records documented *No issues* almost for all of the observed features. This fact shows easy orientation, navigation, and usage of the collection. The approval is found also in most of the comments of the teachers:

1. Orientation
   - *Easy to orient in the platform. Completely easy.*
   - *The collection has a good structure.*
   - *Well-structured design.*
2. Finding the relevant design
   - *Thank you for creating the platform! You did well. We find it helpful.*
   - *Easy, simple, clear.*
3. Readiness
   - *We feel the collection is almost ready. Just a few small things are needed.*
4. Enactment description
   - *Perfect for me! At a glance, I see some points for improving in the enactment – for example, precisely describing how the teams are formed.*
5. Rating
   - *Good. OK.*
   - *We found it okay.*
6. Comments
   - *It is helpful to have comments.*
   - *The comments are very important, I like that.*

The main recommendations for the improvement relate to the **Search tool** visibility:

- *At first sight, it is not clear whether the designs are national or international. We recommend having options for **advanced search**, which will help to define age and grade separately.*
- *It will be good to **enlarge the searching tools**. The search tool works great with the first three sections. It should be **more precise**. It will be okay to add drop-down menu, instead of all the information to be written by the user.*
- ***Location** of the search tool to be **at the top** and preferably to have a **magnifying glass pictogram** (visual representation).*
- *More languages should be available, not only in English.*
- *Put sections with **keywords or named tags** as keywords. To be **searchable easily**.*
- (Rating) *To be visual instead drop-down*
- (Comments) *More languages available for comments.*

During the discussion and reflection immediately after activity, the participants recommended also re-structuring a little bit the Enactment description section, renaming it **Highlights from enactments**, and following the structure of the internal repository: **teaching materials**, **photos**, and **artifacts**.

The overall perception, presented by emoji stickers show a high level of satisfaction (Figure 34).
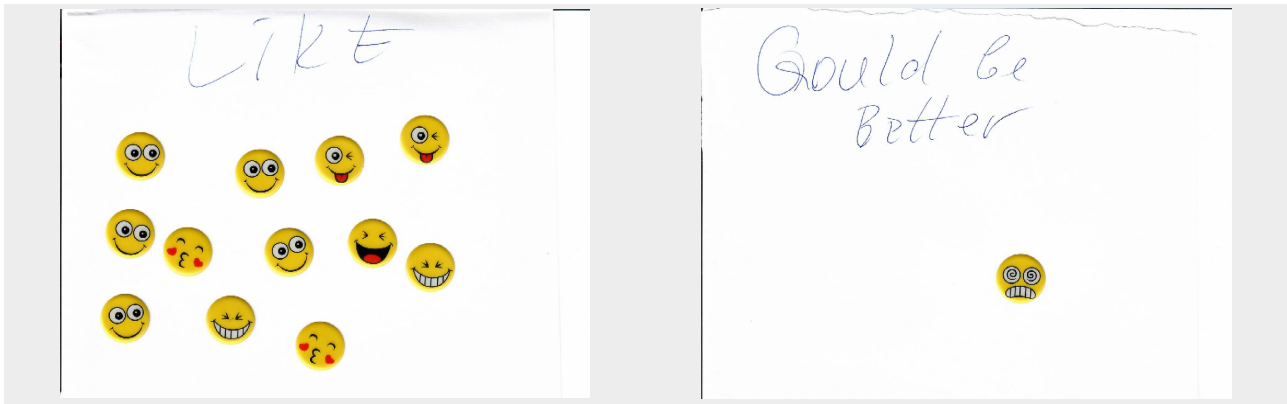

Figure 34. Evaluation of overall perceptions

7.3 Evaluation results

Based on the observation and the Think Aloud Protocol data, the following improvement to the collection was performed:

- **Search tool**
  o Advanced Search tool added
  o Tags added to each design
  o More fields were added, including the **group** (national, international), **subjects**, and **tags**.
  o The tool is presented by a pictogram of a big **magnifier**, positioned at the upper right corner of the collection.
- Teaching materials – the section is separated by the Enactment description
- Enactment description
  o The section is renamed to the **Highlights from enactments.**
  o It is restructured, following the structure of the internal repository, but keeping at the end inspirations of the enacting teachers and observers.

The recommendations, which are not taken into account:

- **Rating**: the rating is visible in the way that the Moodle Database Activity plugin provides it. Redesigning the feature is an issue of possible further development as it took irrelevant efforts and time.

- **Language**: Actually, it is possible to write content and comment in any language. The Moodle interface is also localized in many languages; incl. Bulgarian, Greek, and Italian. However, according to the proposal, the content should be provided in English for large reuse. The automatic translation of the collection content is not planned there and is not implemented at this stage. It is also a potential future improvement.

8. Conclusions and Future prospects

8.1 Conclusions

In conclusion, the **Open Online Collection for Good Practices of Inclusion** completed its function as a test-bed for testing the indicators used in the Evaluation kit (IO4)

The results of the evaluation of the prototype of the **Open Online Collection for Good Practices of Inclusion** show that the repository provides intuitive orientation and navigation, is easy to use for searching for good practices of inclusive designs and inclusive teaching, offers a readable and structured description of the PLEIADE inclusive designs, and provide a base for insights about re-usability, adaptability, and improvement of the presented good practices.

It is hoped that it will attract a wider community of interested teachers in and outside of the PLEIADE schools to re-use the PLEIADE consortium achievements and to implement good inclusive practices in their own classrooms.

The untrained users are equipped with a well-illustrated step-by-step User Guide.

The set of reusable products of IO5 also includes supporting tools.

The planning tool, the tracking tool, and the structure of the internal good practices repository could be easily used by other researchers and practitioners to serve a large teaching observation process.

The simple and useful Think Aloud Protocol is also useful – easy to use and adaptation, for researchers, evaluating the usefulness of similar repositories.

8.2 Future prospects

The Moodle Database Activity plugin is free and open source. It is possible for a tool for automatic translation to be added. The development of other ways for visualization of the ratings is also an option for future development.

Appendix 1. Enactment planning template

The **Enactment planning template** is available as a standalone tool at: https://drive.google.com/file/d/1d_G7lYSxUT0AXRcHYmc4XoXQRfJGiYF_/view?usp=sharing.

Design title: *<title>*

Date when enactment is planned to start: *<date>*   Date when enactment is planned to end: *<date>*

Dates of any synchronous meetings: *<dates>*

Classes involved: *<delete or add rows to the table below as appropriate in order to have one row per class>*

Any other information you deem relevant concerning enactment of this design (to be filled in if you will not enact the whole plan, specifying which part is going to be enacted):

Country	Class(es)	Teacher(s) involved and their discipline	N. of students in the class (indicate gender)	students' age (average)	Thorough description of the students
<insert country>	*<insert here the class identifier>*	*<name of the teacher(s) and discipline>*	*<insert here the number of students of the class>*	*<insert here the average age of students of the class>*	*<describe the students of the class in terms of inclusion needs and any other relevant information>*
<insert country>	*<insert here the class identifier>*	*<name of the teacher(s) and discipline>*	*<insert here the number of students of the class>*	*<insert here the average age of students of the class>*	*<describe the students of the class in terms of inclusion needs and any other relevant information>*

<insert country>	*<insert here the class identifier>*	*<name of the teacher(s) and discipline>*	*<insert here the number of students of the class>*	*<insert here the average age of students of the class>*	*<describe the students of the class in terms of inclusion needs and any other relevant information>*

Appendix 2. Enactment monitoring

The Enactment monitoring questionnaires are available online as follow:

- Enactment monitoring questionnaire for teachers:
  - paper version
    https://drive.google.com/file/d/1GCghlB6-r0Frzi_Y79XakL6YHpmb0n6l/view?usp=sharing
  - online version:
    https://docs.google.com/forms/d/e/1FAIpQLSeeNPOTwPseX72b70yWm-_fzWPMMoOfOe-Lhwd0auNoxV4HSQ/viewform?usp=sharing
- Enactment monitoring questionnaires for observers:
  - paper version
    https://drive.google.com/file/d/1Dq9aSRtSi3158Wph83cr9p6aEyylS5Z3/view?usp=sharing
  - online version:
    https://docs.google.com/forms/d/e/1FAIpQLScl6MoKcxWISvFkRkU4f4XRob9f0PLQQUg4_GdH8CB3sd1wwg/viewform?usp=sharing

Appendix 3. Learning Design-preset

The learning design preset archive is available for downloading and integrating in other Moodle instance at: https://drive.google.com/file/d/1Q7Qso2K9MQ5dgpgg2cwU3Iz4kIi3j6GQ/view?usp=sharing

The **User Guide for Setting Up a Database Activity as an Online Collection** is available at: https://drive.google.com/file/d/1d_G7lYSxUT0AXRcHYmc4XoXQRfJGiYF_/view?usp=sharing

Appendix 4. Think Aloud Protocol for validation of the Evaluation Toolkit and Collection of Good Practices

Think Aloud Protocol – validation

Evaluation Toolkit	
Understanding of the instructions	
Orientation	
Additional guidance needed	
Comments on the questions	
User understanding about the visual feedback	
User understanding about the textual feedback	
Reflection: ideas for improvement to meet higher level of inclusiveness	

Good Practices Repository

1. Orientation	
2. Finding the relevant design	
3. Use of search tool for searching other designs	
4. Readiness of the design	
5. Identification of the enactment description	
6. Rating	
7. Commenting	

Available also at:

- https://drive.google.com/file/d/1u3InUbd-UiZpcN6axxx229QcVPccMW-y/view?usp=sharing (one page)
- https://drive.google.com/file/d/1RMfS1OTy-P5K6CeZ4o1KvSUJSCCd5wO0/view?usp=sharing (two pages)

Appendix 5. Open Online Collection for Good Practices – User Guide

Available online at

https://drive.google.com/file/d/1c9jWp9Rn-k_1GFMaT1ql1axHrl63TbkP/view?usp=sharing

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