L-Cloud

Developing Tomorrow's Cloud Education Leaders

# DEVELOPING TOMORROW'S CLOUD EDUCATION LEADERS

## IO3 Course Design for Developing Adaptive Education Cloud Leaders

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Co-funded by the Erasmus+ Programme of the European Union

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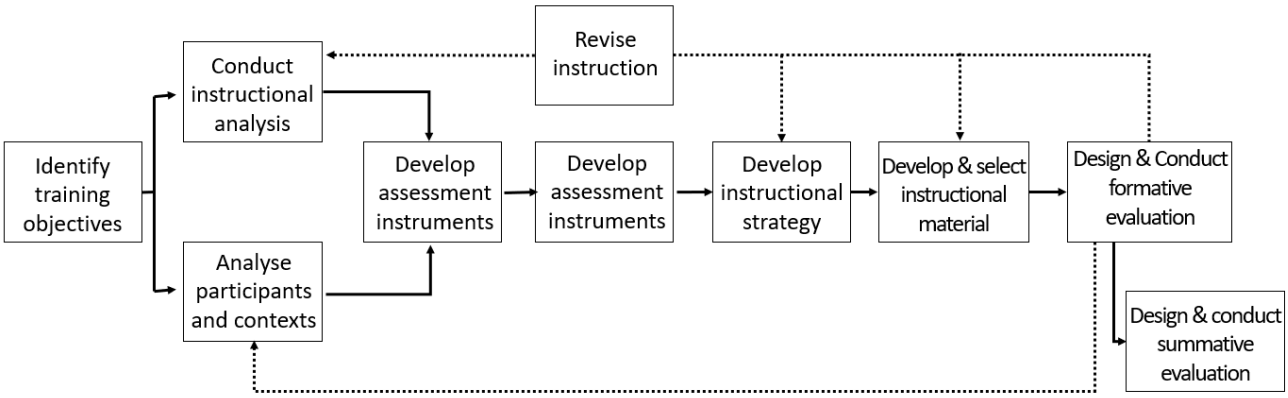
# O3/A1: Course Design (face-to-face and Cloud based webinar).

## [a] Definition of Training Objectives and participants profile, expected competences after course completion

### Training Design Model

The model used for the designing of the course, is the Systems Approach Model that contains the following stages:

- *Identify Training Goals (Training Objectives)*
- *Conduct Training Analysis*
- *Analyse Participants (learners) and Contexts*
- *Write Performance Objectives*
- *Develop Assessment Instruments*
- *Develop Training Strategy*
- *Develop and Select Training Material*
- *Design and Conduct Formative Evaluation of Training*
- *Revise Training*




### Identify the general Training Objectives

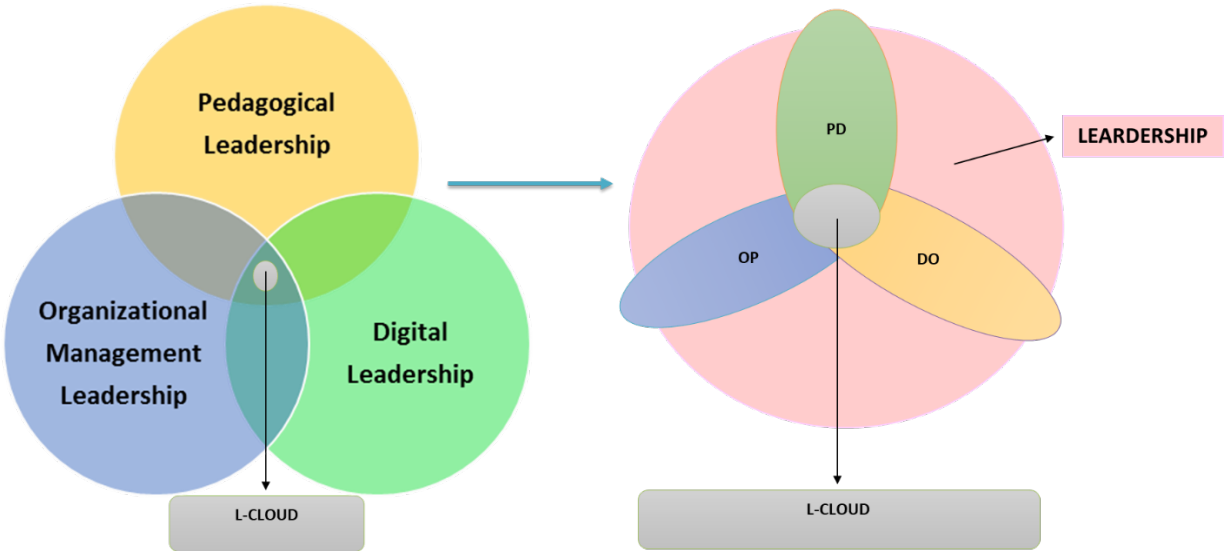
The first step of the model used, is to define what the participants will be able to do and what knowledge and competences they will have acquired/enhanced during the training.

Examples of the general objectives of the Training are:

- comprehension of the training process and objectives,
- introduction to the L-CLOUD training's competence model,
- knowledge of the related competence policies,
- latest use of cloud technology in education,
- development and enhancement of the chosen competences for the training,

The others will occur after conducting the related analysis. E.g. if, based on available research, a crucial leadership competence X is missing or shows a low mastery level in the general population of the educational sector, this competence might be chosen as 1 of the 6 that will be developed/ enhanced during certain F2F training sessions.

Those competences are expected to be in the area depicted in the following competences graphs:




## Training Analysis

The ultimate goal of this phase is to determine the skills, knowledge and attitudes, later referred to as *entry behaviors/ entry competences* that are required by the participants in order to be able to begin the training. It will identify a set of subordinate skills for each step.

If required steps are omitted from the training, and many participants do not already have them, the training will be ineffective.

Among the available processes used to identify subordinate competences, L-CLOUD training used the following, referred to as the hierarchical analysis technique (suggested by Gagne et al 2004):

- **STEP1**: the main question asked is "What must the participant already knows so that, with the minimal amount of training, this task can be learned?". This will help to identify one or more critical competences required by the participant prior to attending the session.

- **STEP2**: for each identified competence a similar question is asked "What is that the participant must already know how to do, the absence of which would make it impossible to learn this subordinate competence?". This process might continue to a lower and lower level of subordinate competences.


## Participants profile and context

The training developed by the L-CLOUD project aims to strengthen the professional profile of education leaders that use Cloud technology and aim to achieve a high level of adaptivity in a technology-enhanced educational environment.

Based on the above, the appropriate participant profile would have the following characteristics:

- involvement in the educational sector
- leading role (within the classroom, school, teacher training activities, etc.)
- adequate level of digital literacy
- basic knowledge/comprehension of cloud technology concepts

During this phase, the characteristics of the training setting and the setting that the competences, included in the training, will be used, will be examined.

The above information will serve as crucial input to the training model choice process.

## Performance Objectives

Based on the training analysis and the skills identified, the following statements try to identify the skills to be learned, the conditions under which the competences must be performed, and the criteria for successful performance. A performance objective, based on the literature, should be considered synonymous to *a training objective* and to *a behavioral objective* as described by Mager (1988).

The *Training Goal* or *Terminal Objective* describes what the participants will be able to do when they complete a set of training material/ a training unit.

During the phase of designing the course, the training goals for each different session was set. The training was divided in sessions based on the context of what was to be discussed. The training's mainly focuses

around the different competence areas that are thought to be crucial for determining the success of an adaptive cloud education leader, thus the most important training goals would have to be achieved through those sessions of the training. An example, follows, showing how these objectives can be broken down in such a way that would best facilitate the course design procedure.

| Training Goal – Terminal Objective | Performance Objectives |
|---|---|
| **6 Team building competences** | 6.1 Communication |
| | 6.2 Teamwork |

A practical method, in order to check if the mastery level of the entry competences is adequate, is by following the same process.

| Subordinate competences | Subordinate Objectives |
|---|---|
| **6.1 Communication** | 6.1.1 Confidence |
| | 6.1.2 Respect |

## Training Objectives per Competence Area

Objectives for the Competence Area modules, in Computing Educational Environments (CEE) are:

- To introduce participants to the concepts of creativity, innovation, and their application to CEE
- To conceptualize and synthesize specific elements of communication, collaboration and participation specific to leadership in cloud computing
- To demonstrate skills of organization, communication, teamwork, management of difficult situations through the appropriate use of relevant managerial techniques
- To promote the reflection of the participants on the modalities of communication, collaboration and participation in their educational contexts
- To active participation in educational research and practitioner networks, virtual learning communities and professional development in cloud computing
- To participate in cloud computing Professional Development programs (CPD).
- To introduce participants to the concepts of leadership, ethics and responsibility and their relation/ application to CEE
- To understand how to use potentialities of cloud computing to promote relationship in learning communities and make them effective in order to be modulated according to learners' necessities
- To understand the skills that are necessary to use effectively and efficiently the cloud potentialities in order to create a useful learning community
- To become aware of the different cultural learning context to make learners able to respect such environments and to use cloud computing as a tool to find common values
- To conceptualize and synthesizing elements of teaching-learning methodologies, classroom and school management, cloud computing infrastructure and applications, educational digital resources
- To promote participants' reflection on the application of creative and innovative CEE environments in their educational contexts
- To promote reflexive practice and professional development focused on engagement, responsibility, teaching, learning and leadership, and keeping abreast of change.
- To promote participants' reflection on the application, impact and moral consideration of leadership, ethical and responsibility issues in CEE environments as they appear in their particular educational contexts
- To promote participants' reflection on the application of pedagogical and organizational CEE environments in their particular educational contexts

- To enable participants to detect the utilization and add-on value of these competences in their own cases and develop an understanding/perception of their prioritization based on their importance and how it relates to their everyday practice

## Develop Assessment Instruments

The assessment processes where chosen to be parallel to and measure the participants' ability to perform what was described in the objectives. There is a direct link between the training objectives and the assessment of the training.

The basis of the assessment approach is the *learner-centered assessment* described by Baron (1998) as the assessment that enhances student learning. For this purpose, the assessment is *criterion- referenced* (e.g. linked to training goals and an explicit set of performance objectives derived from the goals).

There are 3 types of criterion-referenced studies that are under consideration and are listed below:

Before the training:

- ***Entry Competences Study***: These tests assess participants level of mastery of prerequisite competences. The results will indicate for example if the entry competences were indeed crucial or if the population show a high mastery of a certain competence already thus there is no need of developing the corresponding objectives and test items.
- ***Pre-Study*****:** Its objective is to check the level of mastery of the competences that are to be developed/enhanced during the training. A set of objectives, thought by the instructors, to be of most importance will be tested.

During the training:

- ***Practice Study*****:** Its main purpose is to active learner participation during the training and enable them to rehearse new knowledge and skills and judge themselves their level of understanding and competence mastery.

After the training:

- ***Post-study*****:** Parallel to the pre-study but do not include entry competences study. There should be a link between the competence tested and the test item. The posttest may be used to assess learner's performance and to assign credit for successful completion of the training.

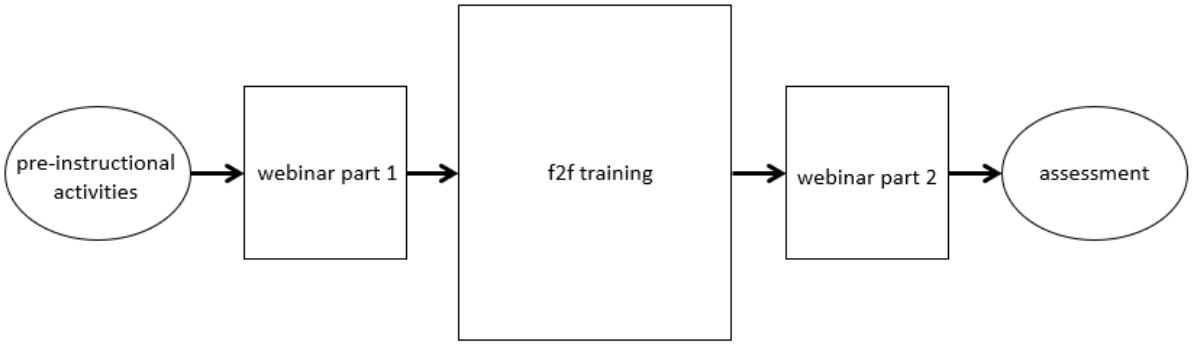
## Develop Training Strategy

Based on the outcomes of the 5 preceding phases, a training strategy will be identified that will optimally achieve the terminal objective. The strategy will include the concepts of pre-training activities, presentation of content, learner participation, assessment and follow-through activities.

The training strategy identifies how the training will be presented in order to engage participants. The term *training strategy* suggests a variety of teaching/learning activities (e.g. group discussions, case studies, etc.)

The strategy will be based on current theories of learning and results of learning research, the characteristics of the media to be used to deliver the training, the characteristics of the participants, etc.

Based on the above, the strategy that is being thoroughly presented in the next parts of this document, was chosen. The development of the on-line course and its content is part of this strategy.




## Develop and Select Training Materials

The *training materials* contain the content – either written, mediated, or facilitated by an instructor – that a participant will use to achieve the objectives. This includes materials for the major objectives and the terminal objective, and any materials for enhancing memory and transfer. Training materials refer to any preexisting materials that are being incorporated, as well as to those materials that will be specifically developed for the objectives. They may also include training that will guide the learner through a specific part of a training session.

During this phase, the training designers, will gather the necessary *course management information*. This term is used to refer to the general description of the total package, typically called a trainer's manual, that provides the instructor with an overview of the materials and shows how they might be incorporated into an overall training sequence.

## Design and Conduct Formative Evaluation of Training

An evaluation process of the training is important, during the design phase as well as the implementation phase, to ensure the necessary revision of the training structure, content and training materials.

Early on, Cronbach (1975) and Scriven (1967), based on the available literature, suggested what later became known as the *formative evaluation* – the collection of data and information during the development of the training, and it's implementation, that can be used to improve its effectiveness.

Keeping in mind that the purpose for the formative evaluation is to pinpoint specific errors in the materials in order to correct then. It may be that the best anchor or framework for the design of the formative evaluation is the training strategy. Since the strategy was the foundation for creating the materials, it is likely to hold the key to the nature of errors you made in producing them. Using the training strategy as a frame of reference for developing evaluation instruments and procedures will probably avoid the evaluation being too narrowly focused or too broad.

The assessment process is chosen so as to measure the participants' ability to perform what was described in the objectives. There is a relation between the training objectives and the assessment of the training. The following self-assessment process was selected, based on a *learner-centered* approach:

- ***Pre-Study self-assessment form:*** Its objective is to check the level of mastery of the participant's competences before the training.

*The participants of the training organised in the context of the project, were chosen staff members of the partner organisations, thus the mastery level of the competences under examination, were known due to their participation in the organisations' internal evaluation procedures. This can also be the case when the training is organised internally by an educational organisation.*

- ***Post-study self-assessment form:*** Its objective is to check the new level of mastery of the competences that has been developed/enhanced during the course and to assign credit for successful completion of the training.

*During the implementation of the first training the need occurred to have a real time feed-back on the achievement of the objectives, thus the need to break down the post assessment and embedded it at the end of each session.*

In parallel to the evaluation process of the course, it is important, through an evaluation form, to ensure that the necessary feedback is given by the trainees for the training structure, the content and the course materials. For this purpose, a questionnaire at the end of the training will enable participants to provide this valuable feedback. An example used during the course of the project can be found in the annexes.

### Revise Instruction

L-CLOUD project designed the procedure of revision of the training, in order to implement it as part of the training organized during the project's implementation period. This procedure describes how input from the formative evaluation of the training as well as from the studies carried out determine the level and depth of it in relation to the different areas of revision, e.g. sessions/materials/competences/etc.

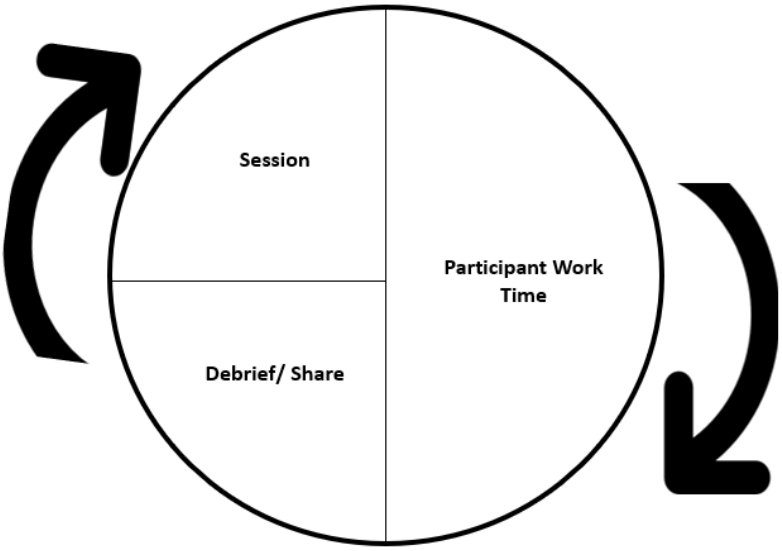
## [b] Determination of training model, definition of the flow of course activities

### Training Models

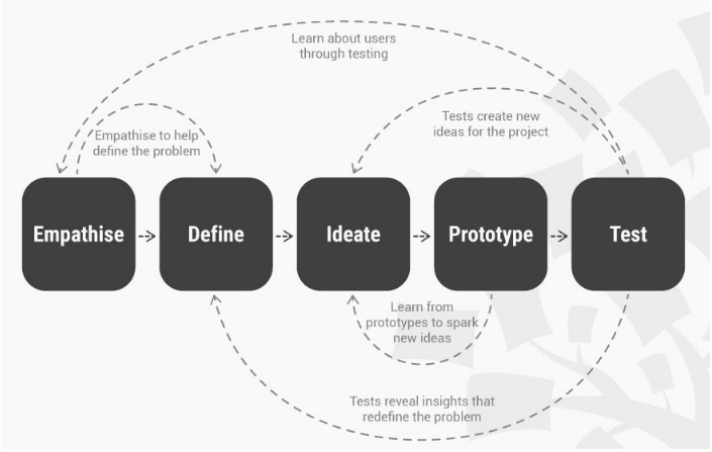
One of the training models that fits the purpose of the teacher training is the Workshop model. According to Tovani (2011), the Workshop model (consists of four (4) activity phases, namely the Opening phase, the Mini-Learning phase (Mini-lesson), the Independent work time phase, and finally the Debriefing phase. Next, a brief description of the activities involved in each of the above categories takes place. (http://tinaspurlock.weebly.com/uploads/1/9/1/4/19147885/using_workshop_model_to_assess_and_differentiate.pdf)

Design Thinking nowadays is one of the most used teaching frameworks to encourage learners to explore, empathize, innovate, and prototype in approaching a problem. It's a creative interactive method that fosters learners' critical thinking and communicative competence. (e.g. source: www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process).

The Workshop model is applied to each session separately, regarding them as mini lessons. More specifically, for each F2F or online session, the following model has been implemented:




While, the training (as a whole) is defined by the design thinking model, as shown in the process graph below:




It is clear, that this process, is not linear and its repetition (and testing) will provide valuable feedback to the process of finalizing the design, structure and content of the training.

*Training Session Types*

- **Face-to-face training**: According to the information displayed on the website of the Purdue University (https://www.lib.purdue.edu/uco/ForInstructors/face_to_face.html), face-to-face training takes place when the instructor and learners are in a place devoted to instruction and the teaching and learning take place at the same time.
- **Online (or web-based) training**: the use of the Internet to access learning materials and to interact with static or interactive content on the specific URL of the L-Cloud web-site. The training interactions of the workshop is based on asynchronous online training and participation.

The main content of the modules of the course, as asynchronous online training, are presentations with the key concepts, related multi-tropical information, and specific links (as URLs). In this way participants have access in the theory that will help them to support their knowledge in a specific context

Furtheremore, participants can work individually, at practical level, with the proposed activities, with various case studies, and elaborate with the different objects presented. They could reinvent a new one

and design visual maps to contextualize the use of Cloud Education in educational settings. A number of online tools are provided (see "Cloud-Based and Collaborative Tools" in the chapter: "Course Materials and Resources").

In the current course environment, personalized learning is promoted, and collaboration, directed debates, analysis and reflection with other participants is not feasible.

*Training Methods/Techniques*

In order to reach the objectives (as described previously), with the above restrictions, the following general **methods and techniques** are used (for face-to-face and online training):

- **Jigsaw** is a method of organizing activities that makes learners dependent on each other to succeed. It breaks participants into groups and breaks assignments into pieces that the group assembles to complete the (jigsaw) puzzle. Each learner's part (like a puzzle) is essential for the completion and full understanding of the final artifact.
- **Brainwriting** technique can be used as an alternative or to complement brainstorming, and often yields more ideas in less time. It helps to engage learners, share knowledge and get different perspectives.
- **Serious Games and gamification** as a process used to increase motivation, engagement and improve learning outcomes. It creates opportunities to develop skills like problem-solving, decision making, multitasking and collaboration.
- **Role Playing** is a technique that allows participants to explore realistic situations by interacting with each other in a managed way in order to develop experience by trying different strategies in a supported environment. Among the advantages of the role playing is that it is very useful for developing the interpersonal skills.
- **Inquiry Based** centers learning on solving a problem or answering a central question. It is a form of active learning that asks students to construct their own knowledge through experiences and explorations. Among the benefits of this method is that it promotes a deeper understanding of content, builds initiative and self-direction and helps make learning rewarding.
- **Problem Based Learning** fosters the skills of critical thinking, analysing and synthesising of contents, decision-making, searching and selecting information. The goal is to put knowledge into practice and in social life. Among its advantages is that it presents a systematic approach to the learning process and it promotes the importance of comprehension in learning and using of cloud computing related to the field of the course.

## Definition of the flow of course activities

L-CLOUD training will consist of F2F sessions and on-line, in the form of a cloud-based webinar. Participants are expected to participate in all sessions (F2F & webinar) and comply with the suggested flow presented below.

The idea of the flow of course activities, is based on the outcomes of the IO1 [GUIDELINES FOR SKILLS AND COMPETENCES] and especially IO2 [QUALIFICATION FRAMEWORK FOR EDUCATION CLOUD LEADERS BASED ON SKILLS & COMPETENCES] working on the proposed L-CLOUD Model. According to this model the three initial axes of analysis (digital, educational, and cloud computing), result in a consolidated model with three axes that support the **L-CLOUD competence framework**: **P**edagogical, **O**rganizational-management and **D**igital leadership. The intersection of these axes (PD-OP-DO) is the core of the L-CLOUD Model.

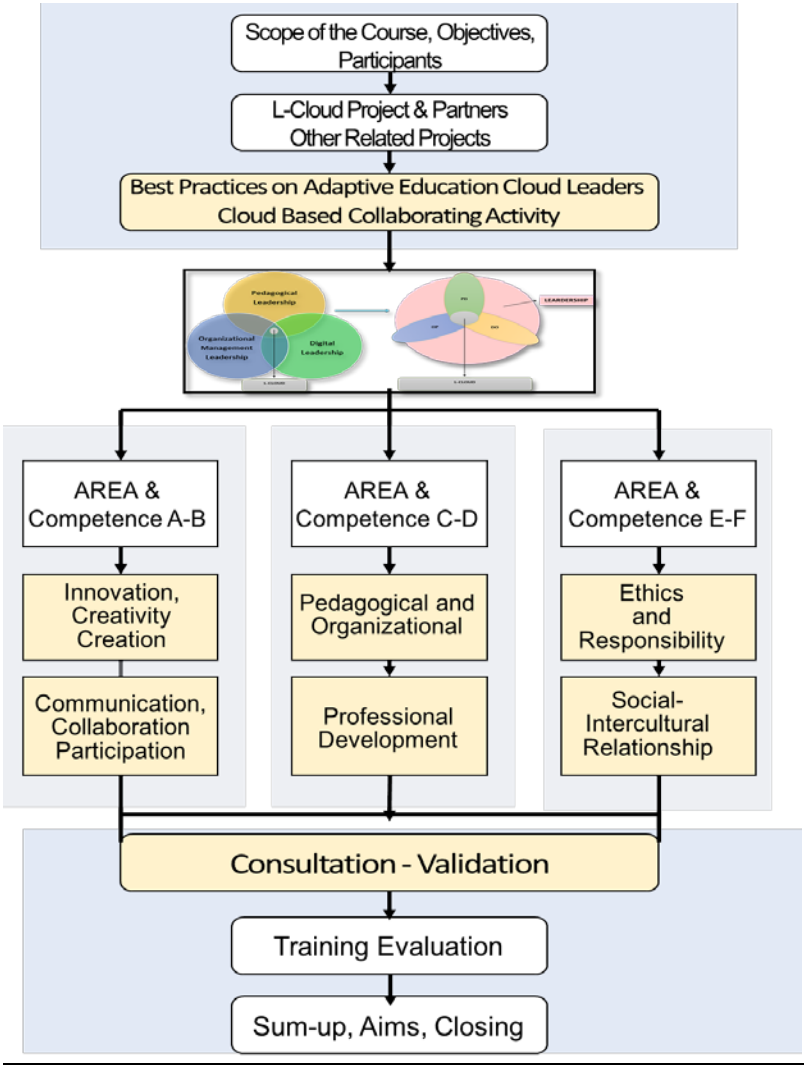
The structure of the Workshop is divided in the following three axes - phases:

A. Preliminary Phase: Scope and Objectives of the Workshop, Adaptive Education Cloud Leadership
B. The L-CLOUD Model in the 6 Areas and Competences and related Activities
C. Final Phase: Consultation, Validation, Feedback, Participants Presentations, Closing

According to the expertise of each partner the main 6 Areas and Competences, were shared by each of the 6 partners, as follow (the 1st partner is the leader of the Activity):

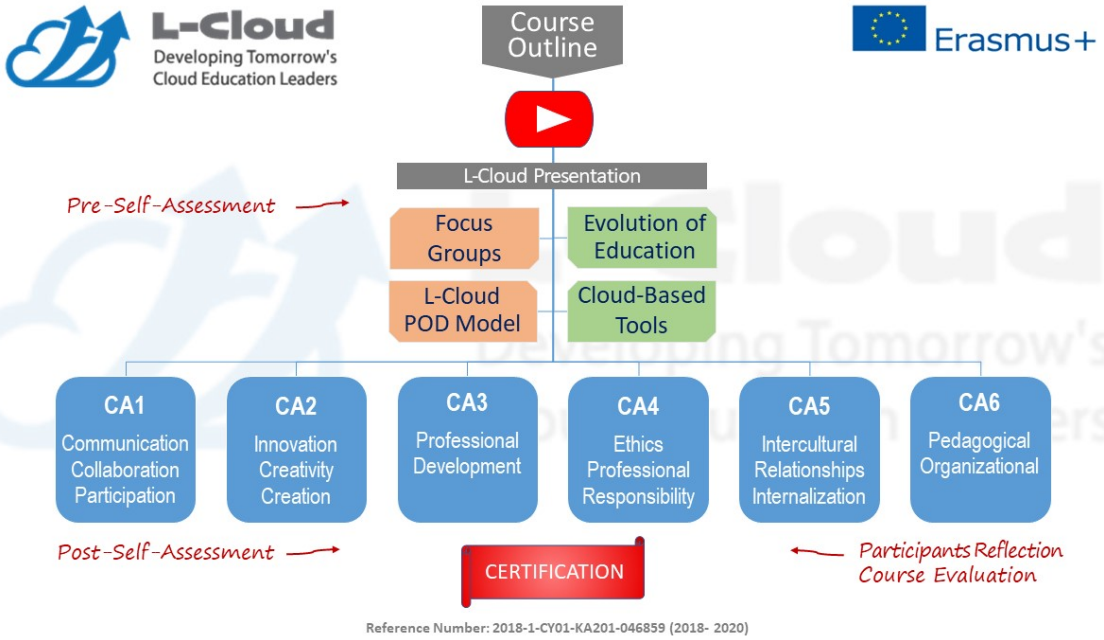
1. Innovation, creativity and creation (UB, Doukas)
2. Communication, collaboration and participation (DLEARN, CNP)
3. Professional development (EUROGEO, EACG)
4. Social and intercultural relationship (CNP, DLEARN)
5. Ethics and responsibility (EACG, EUROGEO)
6. Pedagogical and Organizational (Douka, UB)

**Face2Face Flow Graph**



**Online Flow Graph**

The online course follows the F2F structure with the relevant content and audiovisual material




## [c] Specification of Course Material - Resources, including Cloud Based tools

The *training materials* contain the content - either written, mediated, or facilitated by L-Cloud instructors - that a participant can use to achieve the objectives. This includes materials for the major objectives and the terminal objective, and any materials for enhancing memory and transfer. Training materials refer to any **preexisting materials** that are being incorporated, as well as to those materials that will be **specifically developed** for these objectives.

The Course Material and the Resources have been collaboratively developed by the **L-CLOUD project partners** based on their expertise and the project outcomes. The materials are related to the above mentioned 1+6 sessions and have been developed in respect to the POD model, in order to make the best use of the training methods and techniques (e.g. presentations, documents, activity sheets, links with resources, videos, learning plans).

For the purpose of the training several **cloud-based and collaboration tools** can be utilized (as documented at the 6th Competence Area), so as to enhance the attractivity of the sessions, the level and quality of collaboration and to motivate participants to use cloud-based tools and cloud technology in general, based on their positive experience of seeing their effectiveness in action.

***Cloud-Based and Collaborative Tools***

**Cloud Computing Document-Sharing Services**, that include the online collaborative tools allow a group of individuals to create, edit, store, share simultaneously documents, presentations, slides spreadsheets, forms, drawings, sketches, maps etc., while they can view the changes made by others in real time (e.g. Google Docs).

**Learning Management Systems and Classroom Administration Tools** (e.g. Moodle, TEAMS, Edmodo, Google Classroom).

**Online Bulletin Boards and Virtual Walls - Mapping**, that allows workshop participants to express individual or collaborative their thoughts on a common topic, reflect on them and share any kind of mind maps and multi-tropical and audiovisual information including links (e.g. Padlet, Lino, WiseMapping, Creatly, Coggle, Mindomo).

**Interactive Presentations** to get and share information across and engage participants through stories, polls, quizzes, Q&A sessions etc., giving feedback and visualizing responses in real-time (e.g. Mentimeter, Papet Puls, Comic Strip, Canva)

**Gamified Tools for Online Quizzes and Collecting Data**, response tools for administering questions & answers, facilitating discussions, or collecting survey dat in real time, including diagrams (e.g. Kahoot, Quizlet).

## [d] Overview of existing and design of new course template activities

After the appointment of one partner as a leader for each session and a supporting organisation, both responsible for guiding the input of the rest of the partners for their session and to organise and implement the session during the training.

The use of the following template, as a **learning plan**, emerged from the need to have a homogeneous way of recording the context, objectives, training methods, resources, etc. of each session for the following reasons:

- simplify the process of adapting the training sessions by a non-partner organisation
- offer a clear and homogenous structure for each session
- provide a clear content and context map for the whole training when studied in parallel

## Competence Session Plan Template

- **RESPONSIBLE PARTNERS:** . . . . . .
- **C**ompetence **A**rea**:**
  - ☐ CA1. Communication, Collaboration and Participation
  - ☐ CA2. Innovation, creativity and creation
  - ☐ CA3. Professional Development
  - ☐ CA4. Leadership, ethics and responsibility
  - ☐ CA5. Social and intercultural relationship and internalization
  - ☐ CA6. Pedagogical and Organizational
- **Description of the competence addressed** *(please name the competences of your area)***:**
- **Objectives:**
- **Contents:**
- **Methodologies:**
- **Pedagogical sequencing:**
- **Instruments - Resources:**

| **Activity X: . . . . . .** | |
|---|---|
| **Development** | |
| **Materials** | |
| **Resources** | |
| **Time** | |
| **Classroom Setting** | |
| **Participants' role** | |

# O3/A2: Course Resources Development.

## [a] Open Educational Recourses (OER) about Leadership (existing/new)

As previously described, the training developed by the project, was broken down to sessions. Each session was accompanied by a set of educational resourses, ranging from presentations gathering the information shared to set of tools, valuable resources for further studying or competence enhancement, etc.

Those educational resources can be used as the base of any similar training designed in the future both by partner organisation and non-partner ones. The content is shared and can be found in the L-CLOUD online platform, accesible openly by the educational community. Signed in users, will also be able to access the educational resources as part of their on-line course participation.

## [b] Online platform resources delivery, documentation of selected cloud based tools

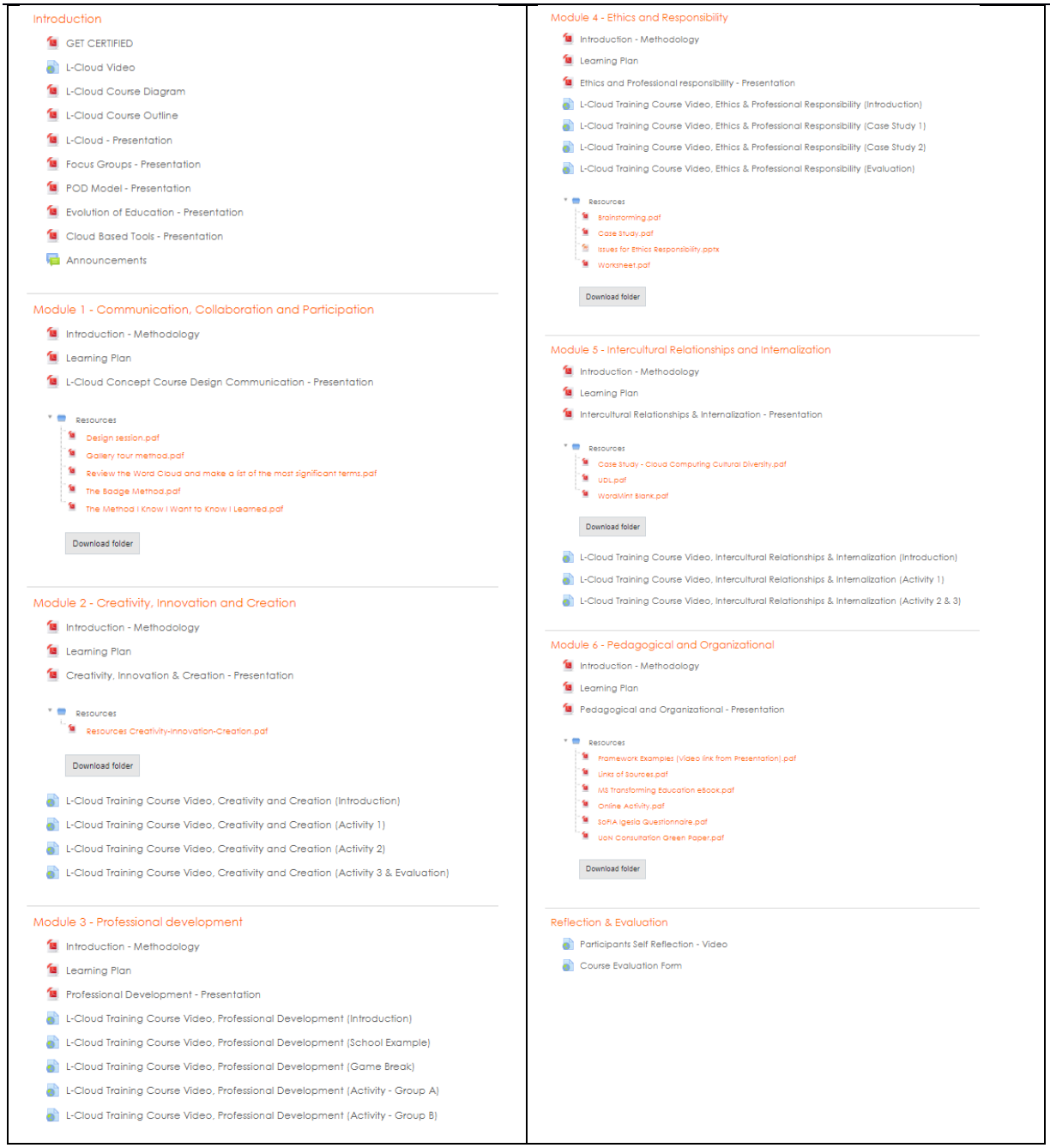
The online resources for the Webinar include the following 8 chapters:

0. Introduction
1. Module 1: Innovation, creativity and creation (UB, Doukas)
2. Module 2: Communication, collaboration and participation (DLEARN, CNP)
3. Module 3: Professional development (EUROGEO, EACG)
4. Module 4: Social and intercultural relationship (CNP, DLEARN)
5. Module 5: Ethics and responsibility (EACG, EUROGEO)
6. Module 6: Pedagogical and Organizational (Douka, UB)
7. Reflection and Evaluation

The developed material for these 8 chapters, contains:

- Presentations about the Project, the Models, the Focus Groups, and the Cloud-Based Tools
- Announcements
- Introductions and Methodologies for each Module
- Learning Plans for each Module
- Presentations for each Module
- Resources for each Module
- Videos from the Face2face training for each Module
- Self-reflection and Seminar online Evaluation

This material, expressed as links, is divided in the Moodle platform of the project:




## [c] Learning and activities plans

The following 6 Learning Plans were designed and implemented for the 6 Competences Areas of the Framework Model:

### CA1. Communication, Collaboration and Participation

**Objectives**

- To conceptualize and synthesize specific elements of communication, collaboration and participation specific to leadership in cloud computing
- To present good practices of CC environments for the construction of communication modalities and implementation of a common vision (illustrating the different elements of competence, as presented above)

- To promote communication and collaboration through the use of digital technologies
- Developing awareness and global understanding of learners using digital communication and collaboration tools
- Availability of teamwork, communication, collaboration and interconnection Sense of self-efficacy
- Understand the role of the leader in a complex context;
- To acquire basic knowledge and to develop the skills absolutely necessary for a leader for teamwork, communication, negotiation;
- To demonstrate skills of organization, communication, teamwork, management of difficult situations through the appropriate use of relevant managerial techniques;
- Increasing the personal contribution to the achievement of the organizational objectives by increasing the team's performance;
- Increasing the skills of efficient management of employees, by consciously adopting and using the leadership style according to each situation, in order to increase the competence and commitment of the subordinates and the development of high performance teams.
- To promote the reflection of the participants on the modalities of communication, collaboration and participation in their particular educational contexts

**Contents**

- Main approaches of leadership, collaboration and participation specific to leadership in cloud computing
- The modalities of communication, collaboration and participation in their particular educational contexts in the CC environment
- Good practices of CC environments for the construction of communication modalities and implementation of a common vision
- The communication profile of leadership in cloud computing

**Methodologies**

- Collaborative learning: group rules, badge method, brainstorming, I know / I want to know / I learned / the gallery tour, debates, group work
- Constructionism: research-based and project-based learning

**Pedagogical sequencing**

- Activity 1: From traditional communication in leadership to communication and collaboration of leadership in cloud computing
- Activity 2: Good practices
- Activity 3: CC visual design
- Activity 4: Evaluation and closing

**Instruments – Resources**

- Cloud educational open access environment

| Activity 1: From traditional communication in leadership to communication and collaboration of leadership in cloud computing | |
|---|---|
| **Development** | - Theoretical session: Trainers will present the traditional approach of communication and collaboration in leadership versus the approach of sharing and collaborating leadership in cloud computing.<br>- Discussion and reflection: Trainers will stimulate discussion among participants through reflection questions.<br>- At the beginning of the working session the trainers establish the specific communication rules with the participants |

| | |
|---|---|
| | - Each participant receives a post that will pass their name, organization of origin, country and a word that characterizes it from the point of view of traditional communication and a preferred digital communication environment. The participants justify their choice.<br>- Brainstorming participants complete the first two columns of the I know / I want to know method about sharing and collaborating on leadership in cloud computing, and the last column will be completed at the end of the work session after participants give feedback on what / I learned |
| **Materials** | Slides, Videos, posters, flipchart sheets |
| **Resources** | Videoprojector, Internet connection, sheets, pens |
| **Time** | 10 minutes |
| **Classroom Setting** | plenary - individual |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate on the addressed topics. |
| **Activity 2: Good practices** | |
| **Development** | Best practices: divided into 3 groups (depending on topics: communication and collaboration in cloud computing advantages, ways to build an efficient communication vision through cloud computing applications, profile of collaboration and collaboration of leadership in cloud computing and working in team) participants exchange and discuss educational practices that have been carried out in different countries of the project, and which reflect the different elements of each competence. |
| **Materials** | Paddlet, cloud-based applications, flipchart sheets |
| **Resources** | Videoprojector, Internet connection and one computer per participant |
| **Time** | 40 minutes |
| **Classroom Setting** | groups |
| **Participants' role** | Group members (trainers and participants) active reflect and debate on their own experiences. |
| **Activity 3: CC visual design** | |
| **Development** | - Instructions: In the classroom the trainers will post statements about the forms of communication and collaboration in the digital environment. The participants sit in line with the statements they agree with and justify the choice. (gallery tour method)<br><br>Design session: members from each group will create a visual map to contextualize the use of CC in their educational settings and backgrounds identifying the three dimensions of:<br>1) communication and collaboration in cloud computing advantages,<br>2) ways to build an efficient communication vision through cloud computing applications,<br>3) profile of collaboration and collaboration of leadership in cloud computing and working in team) participants exchange and discuss educational practices that have been carried out in different countries of the project, and which reflect the different elements of each competence.<br>The groups will expose of the visual maps |

| | |
|---|---|
| **Materials** | Paddlet, Bubbl.us, Mindmeister |
| **Resources** | Videoprojector, Internet connection and one computer per participant |
| **Time** | 30 minutes |
| **Classroom Setting** | groups |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate. |
| **Activity 4: Evaluation and closing** | |
| **Development** | - Collective feedback on the flipchart<br>- Post-it session: collective synthesis of the course activities and main ideas which emerged |
| **Materials** | Paddlet, Post-it, colours |
| **Resources** | Videoprojector, Internet connection |
| **Time** | 10 minutes |
| **Classroom Setting** | groups - plenary |
| **Participants' role** | The trainers and participants will summarize the course activities |

**Evaluation methods**

- Peer-evaluation: collective feedback on the visual maps
- Collective reflection: collective synthesis of the course activities and main ideas which emerged

## CA2. Innovation, creativity and creation

- **Objectives**
  - To introduce participants to the concepts of creativity, innovation, and their application to CC
  - To present good practices of innovating use of CC in pedagogical contexts (illustrating the different elements of the competence, as presented above)
  - To promote participants' reflection on the application of creative / innovative CC environments in their particular educational contexts
  - To enable participants to detect the utilization and add-on value of these competences in their own cases and develop an understanding/ perception of their prioritization based on their importance and how it relates to their everyday practice
- **Contents**
  - Main definitions and theories of creativity and innovation applied to Cloud Education.
  - Main perspectives of creativity in education.
  - Application of creativity and innovation in CC.
  - Good practices.
- **Methodologies**
  - Collaborative learning: brainstorming, debates, co-design.
  - Constructionism: project-based learning.
- **Pedagogical sequencing**
  - Activity 1: Creativity and innovation in education.
  - Activity 2: Good practices.
  - Activity 3: Cloud Education visual design.
  - Activity 4: Evaluation and closing.

- **Instruments – Resources**
    - Cloud educational open access environment
- **Activities:**

| Activity 1: Creativity and innovation in education | |
|---|---|
| **Development** | - Theoretical session: Trainers present the main definitions and theories of creativity and innovation.<br>- Discussion and reflection: Trainers stimulate discussion among participants through reflection questions. |
| **Materials** | Slides |
| **Resources** | Videoprojector, sheets, pens |
| **Time** | 20 minutes |
| **Classroom Setting** | Plenary |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate on the addressed topics. |
| **Activity 2: Good practices** | |
| **Development** | - Good practices: trainers present creative and innovative CC educational practices which have been conducted in the different project countries, and which reflect the different elements of the competence.<br>- Discussion and reflection: trainers stimulate discussion among participants through reflection questions. |
| **Materials** | Videos, example of cloud environments |
| **Resources** | Videoprojector, sheets, pens |
| **Time** | 20 minutes |
| **Classroom Setting** | Plenary - individual |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate on their own experiences. |
| **Activity 3: Cloud Education visual design** | |
| **Development** | - Instructions: presentation of the activity to participants.<br>- Design session: each participant will create a visual map to contextualize the use of CC in his or her educational settings and backgrounds. The trainers will provide guidance to participants.<br>- Collective exposition of the visual maps. |
| **Materials** | Bubbl.us, Creately, Mindmeister |
| **Resources** | Internet connection and one computer per participant |
| **Time** | 40 minutes |
| **Classroom Setting** | Individual and groups |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate. |
| **Activity 4: Evaluation and closing** | |
| **Development** | - Collective feedback on the visual maps<br>- Post-it session: collective synthesis of the course activities and main ideas which emerged |
| **Materials** | Post-it, colours |
| **Resources** | Videoprojector and blackboard |
| **Time** | 10 minutes |
| **Classroom Setting** | groups - plenary |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate. |

- **Evaluation methods**
    - Peer-evaluation: collective feedback on the visual maps.
    - Collective reflection: collective synthesis of the course activities and main ideas which emerged.

## CA3. Professional Development

- **Objectives**

  1. Construction and reflective practice of the professional digital self-identity.

  2. **Disposition** to incorporate teaching innovations based on **cloud computing**

  3. **Ability to** active participation in educational research and practitioner networks, virtual learning communities and professional development in **cloud computing**

  4. Disposition to participate in cloud computing Professional Development programmes (CPD).

  5. Promote reflexive practice and professional development focused on engagement, responsibility, teaching, learning and leadership, and keeping abreast of change.

- **Content**
    - What is professional development – why am I here?
    - Making decisions on innovation and the Cloud
    - Education for transformation – innovation and change
    - Building professional communities
- **Methodologies**
    - Role play
    - Collaborative learning: brainstorming, debates, co-design
    - Individual rflection.
    - Constructionism: project-based learning.
- **Pedagogical sequencing**
    - Activity 1: ICE BREAKER individual contribution
    - Activity 2: CASE STUDY -ROLE PLAY collaborative learning and reflecting
    - Activity 3: CONTENT – with kahoot
    - Section 4: WIND UP REMARKS FEED BACK individual / collaborative contributions
- **Instruments – Resources**
    - Several

| Activity 1 : ICE BREAKER | |
|---|---|
| **Development** | WHO ARE YOU and WHY ARE YOU HERE? |
| **Materials** | Paper and colourful pens |
| **Resources** | Videoprojector, sheets, pens, flip chart |
| **Time** | 15-30 minutes |
| **Classroom Setting** | Individual and Plenary |
| **Participants' role** | The trainer will present the program of the module and start the introductory activity. |
| **Activity 2 : CASE STUDY ROLE PLAY** | |
| **Development** | As mentioned and described in the slideshow/presentation |

| | |
|---|---|
| **Materials** | Slideshow on screen |
| **Resources** | Videoprojector, sheets, pens |
| **Time** | 45 minutes |
| **Classroom Setting** | Round table – boardroom - Plenary and Collaborative |
| **Participants' role** | The trainers will be present guide and stimulate the role play if needed. |
| **Activity 3 PROFESSIONAL DEVELOPMENT NEEDS** | |
| **Development** | Do activities on 'Education for transformation', 'innovation and change' and 'developing a professional community' – kahoot / Powerpoint / Internet |
| **Materials** | Powerpoint |
| **Resources** | Internet – kahoot or alternative |
| **Time** | 30 minutes |
| **Classroom Setting** | Round table |
| **Participants' role** | Content-based - working individually – reflecting and considering – researching - sharing |
| **Activity 4 WIND UP REMARKS FEEDBACH:Cloud Education visual design** | |
| **Development** | open discussion with remarks and feedback – sharing |
| **Materials** | Laptop screen smartphones tablet laptops |
| **Resources** | Internet connection and one computer per participant |
| **Time** | 15 minutes |
| **Classroom Setting** | Individual and together – classroom setting |
| **Participants' role** | Discussion - The trainers play active role as moderator! |

- **Evaluation methods**
    - Peer-evaluation: Kahoot and individual feedback.
    - Collective reflection: collective synthesis of the course activity and main ideas which emerged

### CA4. Ethics and responsibility

- **Objectives**
    - To introduce participants to the concepts of leadership, ethics and responsibility and their relation/ application to CC
    - To present good practices of innovating use of CC in educational/ pedagogical contexts (illustrating the different elements of the competence, as presented above)
    - To promote participants' reflection on the application, impact and moral consideration of leadership, ethical and responsibility issues in CC environments as they appear in their particular educational contexts
    - To enable participants to detect the utilization and add-on value of these competences in their own cases and develop an understanding/ perception of their prioritization based on their importance and how it relates to their everyday practice
- **Contents**
    - Approaches and considerations of ethical and responsibility aspects or issues in the context of CC environments
    - Perspectives and applications of leadership, ethics and responsibility aspects in the context of CC environments
    - Case Studies and Worksheets on Good practices
    - School processes and procedures in the area of leadership, ethical and responsibility considerations and issues

- **Methodologies**
    - Collaborative learning: brainstorming, debates, co-design and planning
    - Constructionism: inquiry based and project-based learning
    - Developing case studies and
    - Maieutic: Socratic method of questioning
- **Pedagogical sequencing**
    - Activity 1: Brainstorming on the consideration of the issues of ethics and responsibility in the context of CC environment as they arise in educational practice
    - Activity 2: Presentation of the competencies related to the area addressed
    - Activity 3: Plan to implement action for demonstrating competencies in the area.
    - Activity 4: Evaluation and closing
- **Instruments – Resources**
    - Cloud educational open access environment

| **Activity 1: Brainstorming on the consideration of the issue of ethics and responsibility in the context of CC environment as they arise in educational practice** | |
|---|---|
| **Development** | Brainstorming with a situation (Appendix 1) referring to the concepts of Cloud computing.<br>The situation hints naturally to the consideration of the issues of leadership, ethics and responsibility in the context of CC environment as they arise in educational practice. |
| **Materials** | PPT, Videos |
| **Resources** | projector, Internet connection, sheets, pens |
| **Time** | 15 minutes |
| **Classroom Setting** | plenary - individual |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate on the addressed topics. |
| **Activity 2: Presentation of the competencies related to the addressed area** | |
| **Development** | Presentation and comprehension of the competencies related to the area addressed (competencies for ethics and responsibility).<br>Distribute a worksheet (Appendix 2) to the trainees and ask them to work in teams of 4-5 persons in order to identify relevant competencies |
| **Materials** | Ppt, sheets |
| **Resources** | Videoprojector, Internet connection and one computer per participant |
| **Time** | 30 minutes |
| **Classroom Setting** | Plenary, groups |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate.<br>The participants will develop appropriate material working in groups |
| **Activity 3: Plan to implement action for demonstrating competencies in the area.** | |
| **Development** | Identifying/ Designing/ Proposing actions for encountering one or more of ethical and responsibility issues in the context of CC.<br>Proposing approaches for developing related competencies. |

| | |
|---|---|
| | The participants are requested (working in groups of 4-5 persons) to develop a case study covering at least some of the points as suggested in Appendix 3. |
| **Materials** | Ppt, |
| **Resources** | Videoprojector, Internet connection and one computer per group |
| **Time** | 30 minutes |
| **Classroom Setting** | Plenary, groups |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate.<br>The participants will develop appropriate material working in groups |
| **Activity 4: Evaluation and closing** | |
| **Development** | Assessment and reflection on the material produced during the previous activities<br>Post-it session: collective synthesis of the course activities and main ideas which emerged |
| **Materials** | ppt |
| **Resources** | Videoprojector, |
| **Time** | 15 minutes |
| **Classroom Setting** | groups - plenary |
| **Participants' role** | The trainers and participants will summarize the course activities |

- **Evaluation methods**
  - Peer-evaluation: collective feedback on the presented ideas
  - Peer-evaluation: collective feedback on the produced material
  - Collective reflection: collective synthesis of the course activities and main ideas which emerged

### CA5. Social and intercultural relationship and internalization

- **Objectives**
  - For competence 5.1 the most important learning objective is the one of understanding how to use potentialities of cloud computing to promote relationship in learning communities and make them effective in order to be modulated according to learners' necessities;
  - For competence 5.2 the most important learning objective is the one of being capable of understanding the skills that are necessary to use effectively and efficiently the cloud potentialities in order to create a useful learning community;
  - For competence 5.4 the most important learning objective is to become aware of the different cultural learning context to make learners able to respect such environments and to use cloud computing as a tool to find common values.
- **Contents**
  - Potentialities of cloud computing to promote effective relationships in learning communities;
  - Necessary skills in order to use effectively and efficiently the cloud potentialities to create a useful learning community;
  - The importance of cultural and language diversity in educational environment: how to modulate cloud computing to different contests and cultures;
  - The importance of common values in diversity and the use of cloud computing as a tool.
- **Methodologies**

- Peer learning
- Gamification
- Problem- based learning

- **Pedagogical sequencing**

  - Activity 1: The experiences stream of consciousness
  - Activity 2: The thermometer of skills
  - Activity 3: The crossword
  - Activity 4: The case study

- **Instruments – Resources**

  - Computer and projector
  - Flip chart with several paper sheets
  - Pens
  - Post-it
  - A4 paper sheets
  - Printed copies of case-study

| **Activity 1 : The experiences stream of consciousness** | |
|---|---|
| **Development** | Potentialities of cloud computing to promote effective relationship in learning communities |
| **Materials** | Flipchart, post-its and pens |
| **Resources** | Flipchart, post-its and pens |
| **Time** | 25 minutes |
| **Classroom Setting** | Groups |
| **Participants' role** | Participants into groups will be invited to describe, according to their experience, how they maintain effective relationships in educational communities through cloud computing. They will note their thoughts down on post-it. |
| **Activity 2 : Thermometer of skills** | |
| **Development** | Necessary skills in order to use effectively and efficiently the cloud potentialities to create a useful learning community |
| **Materials** | Sheets of paper, post-its and pens |
| **Resources** | Sheets of paper, post-its and pens |
| **Time** | 20 minutes |
| **Classroom Setting** | Individual |
| **Participants' role** | Participants will have to write on post-it the skills that according to them are useful to efficiently work with cloud computing in the educational community. Then, they will be invited to place the post-it on the thermometer, by considering the importance they give skills on a scale from 1 to 10. |
| **Activity 3 : Crossword** | |
| **Development** | The importance of cultural and language diversity in an educational environment: how to modulate cloud computing to different contests and cultures |
| **Materials** | Printed crosswords and pens |
| **Resources** | Printed crosswords and pens |
| **Time** | 20 minutes |
| **Classroom Setting** | Groups |

| | |
|---|---|
| **Participants' role** | Participants have been given a crossword that they have to complete with definitions of key concepts about cultural and language diversity in the educational field related to cloud computing. |
| **Activity 4 : The case study** | |
| **Development** | The importance of common values in diversity and the use of cloud computing as a tool. |
| **Materials** | Flip chart, case study printed out, pens, sheets and grid where to insert information |
| **Resources** | Flip chart, case study printed out, pens, sheets and grid where to insert information |
| **Time** | 20 minutes |
| **Classroom Setting** | Groups |
| **Participants' role** | Participants have been given a case study about a socio-cultural problem to be solved through the use of cloud computing. All the solutions they have to think about will be inserted in a grid. |

**Evaluation methods**

• Peer-evaluation: collective feedback on the base of activities;

• Collective reflection: collective synthesis of the course activities and main ideas which emerged during the activities. This focus will be possible both at the end of each activity and during each activity since all participants will be invited to give their opinions and impressions.

### CA6. Pedagogical and Organizational

- **Objectives**
  - to conceptualize and synthesizing elements of teaching-learning methodologies, classroom and school management, cloud computing infrastructure and applications, educational digital resources
  - To present good practices of pedagogical and organizational CEE (illustrating the different elements of the competence, as presented above)
  - To promote participants' reflection on the application of pedagogical and organizational in CEE in their particular educational contexts
  - To enable participants to detect the utilisation and add-on value of these competences in their own cases and develop an understanding/perception of their prioratisation based on their importance and how it relates to their everyday practice
- **Contents**
  - Main approaches of pedagogical and organizational CEE
  - Main perspectives and applications of pedagogical and organizational CEE
  - Good practices
  - School processes and procedures
- **Methodologies**
  - Collaborative learning: brainstorming, debates, co-design, jigsaw
  - Constructionism: inquiry based and problem-based learning
- **Pedagogical sequencing**
  - Activity 1: From teaching and learning methodologies to school management

- Activity 2: Good practices
- Activity 3: Collaborative visual design
- Activity 4: Evaluation and closing

- **Instruments – Resources**
  - Cloud educational open access environment

| **Activity 1: From teaching and learning methodologies to leadership and policy** | |
|---|---|
| **Development** | - Theoretical session: Trainers will present approaches of pedagogical and organizational CEE.<br>- Discussion and reflection: Trainers will stimulate discussion among participants through reflection questions. |
| **Materials** | Slides, Videos |
| **Resources** | Video projector, Internet connection, sheets, pens |
| **Time** | 10 minutes |
| **Classroom Setting** | plenary - individual |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate on the addressed topics. |
| **Activity 2: Good practices** | |
| **Development** | Good practices: In 4 or 5 groups (according to the topics: teaching-learning methodologies, classroom and school management, cloud computing infrastructure and applications, educational digital resources) participants exchange and discuss educational practices which have been conducted in the different project countries, and which reflect the different elements of each competence. |
| **Materials** | Padlet, cloud-based applications |
| **Resources** | Video projector, Internet connection and one computer per participant |
| **Time** | 40 minutes |
| **Classroom Setting** | groups |
| **Participants' role** | Group members (trainers and participants) active reflect and debate on their own experiences. |
| **Activity 3: Collaborative visual design** | |
| **Development** | - Instructions: each team member with each of the other team members, creates a new group (jigsaw) and jointly synthesize their elements of each competence.<br>- Design session: members from each group will create a visual map to contextualize the use of CEE in their educational settings and backgrounds.<br>- The groups will expose of the visual maps |
| **Materials** | Padlet, cloud-based applications |
| **Resources** | Video projector, Internet connection and one computer per participant |
| **Time** | 30 minutes |
| **Classroom Setting** | groups |
| **Participants' role** | The trainers will present the contents and stimulate participants' active reflection and debate. |
| **Activity 4: Evaluation and closing** | |
| **Development** | - Collective feedback on the visual maps<br>- Collective synthesis of the course activities and main ideas which emerged |
| **Materials** | Padlet, cloud-based applications |

| | |
|---|---|
| **Resources** | Video projector, Internet connection |
| **Time** | 10 minutes |
| **Classroom Setting** | groups - plenary |
| **Participants' role** | The trainers and participants will summarize the course activities |

- **Evaluation methods**
  - Peer-evaluation: collective feedback on the visual maps
  - Collective reflection: collective synthesis of the course activities and main ideas which emerged
- **Additional comments (requirements, reflections on the competences developed)**

  Jigsaw arrangement for 12 participants

| *Initial Group* | | | | *Final Group* |
|---|---|---|---|---|
| *POD1:* | P1 | O1 | D1 | |
| *POD2:* | P2 | O2 | D2 | |
| *POD3:* | P3 | O3 | D3 | |
| *POD4:* | P4 | O4 | D4 | |

el1

el2

el3

Initial Group 1: P1-O1-D1
Initial Group 2: P2-O2-D2
….
Final Group A: P1-O2-D3
Final Group B: P2-O3-D4
…
ACTIVITY Posts… using the PADLET VISUAL MAP: padlet.com/ykotsanis/LCloudPOD

## [d] Online guide for course delivery - presentations

The online webinar training developed by the L-CLOUD project aims to strengthen the professional profile of education leaders that use cloud technology and achieve a high level of adaptivity in a technology-enhanced educational environment. Based on the above, the appropriate participant profile should have the following characteristics:

- involvement in the pedagogical and educational sector;
- leading role (within the classroom and school management, teacher training activities, innovative programs etc.);
- adequate level of digital literacy;
- basic knowledge and comprehension of cloud technology concepts.

During the online training, the characteristics of the setting that the competences included in the training, will be used and examined. The ultimate goal is to determine the skills, knowledge and attitudes, that are required by the participants in order to be **adaptive education cloud leaders**.

The online course's principal aim is to make participants aware of the use of cloud computing in the following **6 competence areas**:

1. Communication, Collaboration and Participation
2. Innovation, Creativity and Creation
3. Professional Development
4. Ethics and professional responsibility
5. Intercultural relationships and internalization
6. Pedagogical and Organizational - Cloud Based Tools

The online course - webinar (a web-based training) requires an internet browser in order to access the learning materials and to work either statically or interactively. The training interactions of the webinar are based **on asynchronous online training and participation**.

The "**Online Course - Webinar Outline**" as an introductory guide is presented at the Appendix 3.

# O3/A3: Course Implementation (piloting)

## [a] Administration issues regarding delivery

This section describes the administrative actions that are organized and implemented **prior, during and after** to the C1 training. An action plan was formed and partners contributed through their existing organizations' communication and dissemination channels.

The following list include all tasks needed to be completed for the organization and the completion of the event:

**General** *(this category includes the tasks that the hosts completed before the training and contains mainly organizational procedures)*

- Booking of the venue rooms and places
- Approval of logistics and organisation
- Breaks/Lunches
- Informing school staff about the venue and the tasks
- ICT (WiFi, Projectors) [Tablets]
- Transportation (to/from the airport, to/from the venue)
- Final confirmation (arrival/dep/hotel)
- Social Dinners, Tour around Athens city centre

**Program – *Trainers*** *(the program was defined by the trainers)*

- Preparation – set the workflow

- Send the program to the trainees along with a small summary of each session
- Final Edition - Printings

**Participants** *(material provided to the participants and administrative material needed during the training)*

- Invitation and online leaflet
- List of Attendance (*2) - Cards Names
- Certificate of Attendance (*2)
- Prepare the folder with the training material & aides
- Logistics-Forms
- Preparation of Evaluation
- Evaluation Form

**Seminar Rooms** *(room set, equipment)*

- Guides & Labels
- Security
- Cleaning
- Photos & Videos of Modules

**Communication - Dissemination**

- Promotion with Newsletter & Posts before the Seminar
- Promotion with Newsletter & Posts after the Seminar

## [b] Intensive piloting to selected staff of the organizations

Project partners were responsible to select the staff to be involved in the training activities. Those staff were asked, prior to their participation, to study the results of the project available prior the training implementation and get acquainted with the competence areas that are involved in the training.

During the implementation of the training, they were introduced to the developed educational resources. The relation, as employees, between the participants and the organisations involved, gave the change for a continues feed-back process and the opportunity to engage the participants in the revision of the content itself.

Training participants participated in the multiplier events organised in partner countries were in some cases present and shared their experience and insight to help introduce the training content to the multiplier event participants. Their involvement in this process led them to further engage their study in the relevant competence areas and achieve a deeper understanding of them.

## [c] Delivery of Courses/workshops according to objectives, methodology and resources

From previous tasks we finally delivered the following two training (with the resources analysed to section O3/A2[b]:

1. Staff Training Activity (C1-Athens)
2. Online Course - Webinar Outline

For each Module the following introduction and methodology is adopted:

### CA1. Communication, Collaboration and Participation

The module "Communication, Collaboration and Participation" aims to raise awareness of the participants about the conceptualization and synthesis of specific elements in the field of communication, collaboration and participation of the management in cloud computing.

To achieve this objective, the methodology used is composed of two learning methods:

1. Collaborative learning: the badge method, Brainstorming, I know / I want to know / I learned / the gallery tour, debates, group work

2. Constructionism: research-based and project-based learning

These learning methods are structured to analyze step by step which in the field of communication, collaboration and participation of the management in cloud computing are:

In terms of collaborative learning, this is an educational approach, which is based on improving communication skills, collaborative learning and participation through the efficient use of cloud computing tools. This approach actively involves participants and causes them to process and synthesize information to establish a common vision for cloud computing in learning environments.

Through the badge method, the collaborative learning method, participants had to identify an advantage of traditional communication and an advantage of communication in the digital environment.

By the method I know / I want to know / I learned the participants had to share first the team members, but also in the plenary session to share their experience in the field of communication, collaboration and participation in the leadership in cloud computing, in the second part they completed in the form of questions about what I do not know about communication and collaboration in cloud computing, so that at the end of the working session they will acquire new skills to build professional networks with school leaders in the field of cloud computing.

Through the Gallery Tour method, the interactive method based on collaboration between the participants, they were put in the position to evaluate interactively and deeply 4 statements about the forms of communication and collaboration in the digital environment.

Finally, research-based and project-based learning focuses on understanding the use of communication and collaboration tools in cloud computing used in educational practices in different countries.

Participants are offered a case study that identifies three dimensions of communication and leadership collaboration in cloud computing.

### CA2. Innovation, Creativity and Creation

This module has the principal aim of making participants aware of the use of Cloud Education in the field of Innovation, Creativity and Creation. In order to obtain such awareness, the module revolves around the two main axes:

- Collaborative learning: brainstorming, debates, co-design.
- Project-based learning.

The objectives of the module will be developed as follows:

- Introduction of the main definitions and theories of creativity and innovation.

- Presentation about the creative and innovative Cloud Education (CE) practices which have been conducted in the different project countries, which reflect the different elements of the competences.
- Application of creativity and innovation in CE → Creation of a visual map to contextualize the use of CE in the different educational settings and backgrounds. The trainers will provide guidance to participants.

***Methodology***

The **teaching methodologies** suggested are:

- **Master classes** (MC): the contents of the subject are presented by the trainer without the active participation of the students. Presentation (online) of the material with the key concepts (creativity and innovation, and their differences).
- **Directed Debate** (DD): Technique of group dynamics that has the objective of promoting expression and oral comprehension in a conversation. Analysis and reflection will be used, and debates will be held in the Forum.
- **Practice** (PR): Allows applying and configuring, at practical level, the theory supporting a knowledge area in a specific context. Discussion and reflection on creative and innovative CE educational practices which have been conducted in the partner countries, reflecting the different elements of the competences.
- **Individual work** (IW): Activity consisting of the presentation of the participants' outputs. Elaboration with the different objects presented: a) reinvent a new one and design; b) co-design the visual maps to contextualize the use of Cloud Education in participants' educational settings. To this end, a number of online resources will be provided: WiseMapping, Coggle, MapsofMind, Creatly…
- **Group work** (GW): Learning activity to be done through group collaboration: elaboration of a collective exhibition of the visual maps.

***Assessment:***

- **Work done by the participants** (WP):

  a) Active participation.
  b) Reflections and analysis on good practices in their respective institutions.
  c) Creative activities from objects and visual maps.

- **Collaborative work** (CW): Reflection and debate in relation to the basic concepts and theories dealt with in the module, analysis and sharing of good practices in the participants' educational institutions, and joint elaboration of a collage in relation to Cloud Education Environments.

### CA3. Professional development

This module will focus on professional development in educational leadership where agility and adaptability for cloud adoption are essential. Reflection and awareness of the necessity of continuing grow in educational leadership in a life long learning process is another focus. Leadership used also as example behaviour for your educational organisation is stressed. The variety of possibilities to grow and angles from where are shown in the underneath illustration which is incorporated in the module

Reasons and need for professional development are explained. Professional development is defined as a wide variety of specialized training, formal education, or advanced professional learning intended to help administrators, teachers, and other educators improve their professional knowledge, competence, skill, and effectiveness

***Methodology***

The course module consists of three items. All involve teamwork either in pairs or in teams.

Activity one is done in pairs and will focus on self-reflection via a basic personal assignment on

professional development in general.

Activity two, also in pairs, will focus on knowledge of the digital environment and what the basic reference is on cloud education. This is done by means of a word/cloud.

Activity three is the third and last part of this module and involves an extensive roleplay. This is a team or group activity where all participate. The role play focusses on a real live situation in an educational environment. The focus here is on cloud computing where responsible educational leadership is needed.

Activity three is followed by extensive evaluation and feedback. Followed by useful tips and extra information supplied on e.g. `education for transformation`.

After finishing activity three and before winding up and feedback is exchanged a Kahoot is placed in the presentation. This can either be skipped or used as a useful Break! Content of the Kahoot however is up to the organisers themselves!

### CA4. Ethics and Responsibility

This module has as basic aim the consideration of ethical aspects and responsibilities that should be guiding principles for an educational leader that is using Cloud computing in an educational context. There is no question that issues of ethics and responsibilities are always of concern to an educationalist but in a Cloud Educational Environment (CEE) with its complexities and demands are even more crucial. Thus in CEE an education worker has to have knowledge, skills and competences to manage ethical issues in such a complex environment.

In this context it is planned to explore key concepts on the role of ethics and responsibilities in the learning process and how an education worker should act. Specifically this module will provide activities that will address the following aspects of the area:

- **Knowledge** on the effective and ethical use of the different types of CEE (public, private and hybrid) and their services, tools and functionalities (SaaS, PaaS and IaaS).
- **Knowledge** on legal issues related to safety, data protection, privacy and a responsible use of CEE.
- **Ability** to solve complex problems in CEE.
- **Disposition to** Identifying and removing barriers to create/maintain a cloud education infrastructure.
- **Disposition** to motivating, encouraging, trusting and valuing colleagues to create and use cloud education in their contexts
- **Disposition** to social and global awareness and responsibility in relation to CEE.
- **Disposition** to promote and build an ethical digital identity in cloud education.

In particular, in this process, it is vital to take into consideration issues that emerged in recent years such as the following:

- Social networking
- Acceptable Use Policies of material on the Internet
- Netiquette
- Cyber-Bullying
- Student-Data
- Internet-Privacy
- Selecting Appropriate Learning Material
- Identifying Hardware and other audio-visual means

Obviously the management of such issues demand a broader range of competencies and novel approaches. Such approaches should provide to the education worker the forum for succeeding in a digital environment that has to take care of traditional ethical aspects and responsibilities but as well as ones that are the outcome of working in CEE. As a result this module has the following aims:

- To introduce participants to the concepts of leadership, ethics and responsibility and their relation/ application to CC.

- To present good practices of innovating use of CC in educational/ pedagogical contexts (illustrating the different elements of the competence, as presented above).
- To promote participants' reflection on the application, impact and moral consideration of leadership, ethical and responsibility issues in CC environments as they appear in their particular educational contexts.
- To enable participants to detect the utilization and add-on value of these competences in their own cases and develop an understanding/ perception of their prioritization based on their importance and how it relates to their everyday practice.

***Methodology***

In order to achieve the aims just mentioned the whole approach will be based on the idea of having the learner/ trainee as the centre of action. Thus the activities will engage and challenge the trainees, provide issues for investigation, provide resources and opportunities for further considerations and reflection. These actions are to be based on previous ideas and experiences extending them in the new situation. More specifically the content includes:

- Approaches and considerations of ethical and responsibility aspects or issues in the context of CEE environments
- Perspectives and applications of leadership, ethics and responsibility aspects in the context of CEE environments
- Case Studies and Worksheets on Good practices
- School processes and procedures in the area of leadership, ethical and responsibility considerations and issues

For the materialisation of the aims, the methodological approach concentrates on:

- **The Maieutic/ Socratic method of questioning**
  In this context the participants are involved and have the opportunity for reflection and expression of their own opinions and ideas.
- **Collaborative learning: brainstorming, debates, co-design and planning**
  Though this the participants are given the opportunity to relate the issues of ethics and responsibility to the whole human development and consider philosophical concepts that are leading to the questions that have to be the object of their action in the process of working in CEE.
- **Constructionism: inquiry based and project-based learning**
  The participants have to reflect on practices and proposals in the area from the point of view of ethics and responsibility. In this context they can refer to case studies and examples and investigate various issues as mentioned in the introduction. In this process they are expected to identify the pros and cons and proceed to a swot analysis of a case study, proposing ways of action.
- **Developing case studies and worksheets**
  The participants are expected to build on these practices and examples in order to produce their own case studies for one or more ethical issue and responsibility of an education worker in CEE. The proposed activities in the Lesson Plan are indicative.
- **Assessment**

In essence the proposed methodology of approaching the area involve a continue assessment process for what indeed the course has offered to the participants.

### CA5. Intercultural Relationships and Internalization

This module has the principal aim of making participants aware of the use of cloud computing in the field of Social intercultural relationship and internationalization. In order to obtain such awareness, the following contents have been developed:

- potentialities of cloud computing to promote effective relationships in learning communities;

- necessary skills in order to use effectively and efficiently the cloud potentialities to create a useful learning community;
- the importance of cultural and language diversity in educational environment: how to modulate cloud computing to different contests and cultures;
- the importance of common values in diversity and the use of cloud computing as a tool.

Each of these contents have been developed in reference to a specific area of the competence framework identified within the project. In particular, the competences addressed are:

- Knowledge on how to build and maintain effective relationships with the educational community through cloud computing;
- Skills on how to work effectively with the community, partners and stakeholders of cloud computing;
- Disposition to respecting and being aware of the diversity of learners' culture and identifying common values.

By combining the two above mentioned analysis about contents and competences, at the end of this module, the learner will be able to reach the following learning objectives:

- understanding how to use potentialities of cloud computing to promote relationship in learning communities and make them effective in order to be modulated according to learners' necessities;
- being capable of understanding the skills that are necessary to use effectively and efficiently the cloud potentialities in order to create a useful learning community;
- becoming aware of the different cultural learning context to make learners able to respect such environments and to use cloud computing as a tool to find common values.

***Methodology***

In order to reach this objective, methodology used is composed by three learning methods:

1. Peer learning
2. Gamification
3. Problem-based learning

These learning methods are structured in order to analyse step by step which in the field of social intercultural relationships are:

- principal skills and competences needed and related to cloud computing;

- key words and principles in cloud computing use;

- pros and cons of cloud computing.

As regards peer learning, it is based on making participants learn from each other's experience about which are the best competences in order to maintain effective relationship in learning community through cloud computing tools. Peer to peer learning is realized through two different activities: "The experience stream of consciousness" and the "Thermometer of skills". The first one consists in sharing of participants' experiences and discussion about them during a plenary session. The second one consists firstly, in thinking about which skills are necessary to become a cloud computing educational leader and secondly, in placing those skills on an evaluation scale (1 to 10 points) according to participants' opinions.

As for the gamification, main objective in this case is the one of developing participants' awareness of dispositions to respecting and being aware of the diversity of learners' culture and identifying common values. The game consists in the completion of a crossword in which participants have to follow hints made of definitions and instructions to find key words. Two crosswords are available according to difficulty level: one for basic level and the other for intermediate level.

Finally, problem-based learning focuses on the understanding of pros and cons of the use of cloud computing related to the field of intercultural relationships and internationalization. Participants are given a case study that presents the situation of international class made of different students, in which cloud computing tools have just been introduced as compulsory approach for teachers in their subjects. They are then invited to present which are according to them pros and cons that cloud computing tools can generate in an international classroom contest.

### CA6. Pedagogical and Organizational

This module has the principal aim of making participants aware of the use of cloud computing in the field of pedagogical and organizational area. In order to obtain such awareness, the following **contents** have been developed:

- main approaches of pedagogical and organizational cloud computing environments;
- main perspectives and applications of pedagogical and organizational environments;
- good practices related to cloud-based tools;
- school processes and procedures.

Each of these contents have been developed in reference to a specific area of the competence framework identified within the project. In particular, the **competences** addressed are:

- Pedagogical content **knowledge** in relation to different subjects, contents and structure in Cloud Education Environments (CEE).
- **Knowledge** on contextual, institutional, organizational aspects of educational policies
- **Knowledge** on class management, assessment and feedback processes in CEE.
- **Skills** on using, developing, creating and managing CEE, including applications, devices, and networks
- **Skills** on selecting, creating, organizing, sharing and publishing educational content according to different CEE.
- **Skills** to identify students' learning needs and learning progress in the cloud.
- **Disposition to** accept responsibilities to planning and implementing CEE.

By combining the above mentioned contents and competences, at the end of this module, learners will be able to reach the following **learning objectives**:

- conceptualizing and synthesizing elements of teaching-learning methodologies, classroom and school management, cloud computing infrastructure and applications, educational digital resources;
- collecting good practices of pedagogical and organizational Cloud Computing (CC) environments, illustrating the different elements of this competence area;
- promoting their reflection on the application of pedagogical and organizational CC environments in particular educational contexts;
- detecting the utilisation and add-on value of these competences in their own cases and develop an understanding/perception of their prioratisation based on their importance and how it relates to their everyday practice.

***Methodology***

In order to reach these objectives, methodology used is composed by the following methods:

- **Collaborative learning**: brainstorming, debates, co-design, jigsaw
- **Constructionism**: inquiry based and problem-based learning

For the **introductory activity** and the theoretical session of the contents, the approaches of pedagogical and organizational areas are presented with the active involvement and the knowledge of the participants, through discussion and reflection questions, using three different frameworks - case studies.

For the **face-to-face collaborative activities**, participants exchange and discuss educational practices which have been conducted in the different countries, and which reflect the different elements of

each competence, using the following **jigsaw methodology**, with 2 different groups' formulation:

- **Initial groups** are staffed by a **P**egagogy expert or specialist, an **O**rganizational expert, and a **D**igital expert or specialist (a "$POD_i$" group). Each group deals with only ONE of the different module topics (e.g. learning and teaching methodologies, digital content/material, classroom management etc).
- **Final groups** are staffed exchanging expert/specialists, combining all the different topics of the initial groups and formulating **E**ducation **L**eader groups (the "$el_i$" could be a head of educational service, a responsible for a course, a principal of a School, etc).

For the **co-design session**, members from each group create a visual map to contextualize the use of CC in their educational settings and backgrounds. The groups will expose of the visual maps, reflecting the different elements of the competences areas.

***Assessment***

- *Work done*: active participation, reflections and analysis on good practices in their respective institutions, and creative activities from objects and visual maps.
- *Collaborative work*: Reflection and debate in relation to the basic concepts dealt with in the module, sharing of good practices in the participants' educational institutions, and joint elaboration of a collage in relation to Cloud Education Environments.

***Activities for the Online Course***

Each participant posts at least **one good practice** in one of the following categories:

- POD1: Teaching & Learning Methodologies
- POD2: Educational Environments - Digital Content/Material/Resources
- POD3: Classroom or Institute/School Management
- POD4: Relationships between Students-Teachers-Parents

or create a new one POD category in the cloud visual map (cloud computing infrastructure maintenance, financial etc).

Then, the participant creates a new category of **educational leader** (e.g. el5: a responsible for a course, el6: a head of educational service, el7: a principal of a School, etc) and select 2 or more good practices from POD1, POD2, POD3, etc. that this leader could ORGANIZE.

Finally, the participant check if the needed competences of this **educational leader** are in the list of 7 competences and suggest, if needed, a new one.

# O3/A4: Course Evaluation and finalization

## [a] Evaluation of objectives, methodology, tools, infrastructure, results

Two evaluation forms are designed and implemented for the the Face2Face and the Cloud-Based Webinar Seminar.

**Evaluation Form of the Face2Face Seminar**

Thank you for participating in the course. We would like to ask you to spend a few minutes of your time to fill in this evaluation form. The information you will provide will form the basis on the pros and cons that came out of the course, thus helping the organisers to take any necessary corrective action. Furthermore your answers will provide elements for the management and extent of fulfilment of the

expectations of the course.

Name:

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| |

Status/ Position (teacher, headmaster, professor, educational administrator etc) :

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Organization

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1. **Pre-training Preparation. The following statements were valid before attending the course.**

| **5 = I totally agree; 4 = I agree; 3= I fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|---|
| I had a basic idea of the concepts and process involved in the content of the course | | | | | | | |
| I was informed about the goals and objectives of the course before applying to participate. | | | | | | | |
| I came to the course after some preparation on the ideas around the topic of cloud computing in education | | | | | | | |

2. **The following statements are valid for the Structure and Content of the Course**

| **5 = I totally agree; 4 = I agree; 3=fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|
| The programme of the course was well balanced and structured allowing for comprehension of the various units presented | | | | | | |
| I was given ample time for engaging in the process and find answers to my questions | | | | | | |
| There were well-supported audio-visual material as well as other educational aids to explain and clarify the content presented | | | | | | |
| The course was enriched with challenges and motivating ideas | | | | | | |
| There were ample opportunities for discussion, interaction and exchange of views. | | | | | | |
| The depth and difficulty of the concepts and ideas presented were at levels that I could understand and grasp. | | | | | | |
| The concepts and processes presented are related and useful for my work. | | | | | | |
| There were opportunities for transferring and applying the course content to my every day work. | | | | | | |
| There was compatibility and harmony between the content of the various modules | | | | | | |
| Now I understand much better the tasks and responsibilities ahead as well as my role in future activities. | | | | | | |

3. **The following statements are valid for the Delivery, the Presenters/Trainers and the Work during the course**

| **5 = I totally agree; 4 = I agree; 3=fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|
| The approaches for delivering the course were interesting and pleasant | | | | | | |
| The trainers were friendly and approachable | | | | | | |
| The trainers seem to know their subject/ matter | | | | | | |
| The trainers provided ample time for interaction and enrichment with practical work/ applications of the presented ideas/concepts/ processes. | | | | | | |

4. **The following statements are valid for the Environment/Venue and the supporting technology**

| **5 = I totally agree; 4 = I agree; 3=fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|
| The venues where the course was delivered were pleasant and comfortable. | | | | | | |
| The amenities for the course's presentation were good. | | | | | | |
| The various audio-visual and other technological aids were of high standards. | | | | | | |
| There were enough technological means for practice and use by the trainees. | | | | | | |

5. **The following statements are valid for the Learning Experience and Impact**

| **5 = I totally agree; 4 = I agree; 3=fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|
| I feel that, by participating in the course, I acquired a broad range of Knowledge, skills and competencies in the area. | | | | | | |
| I feel that the course provided me with the opportunity of improving and enriching my acquaintance with the topic | | | | | | |
| I feel that after taking the course I have new opportunities for fulfilling and improving the expectation in my job | | | | | | |
| The presented material in the course is decisively contributing to the Aims and Objectives of the topic | | | | | | |
| The evidence I have from the activities in the course is that it provides the framework for satisfactory implementation/ use | | | | | | |
| In my view I expect that the course provided the means for positive and constructive impact. | | | | | | |

6. **General Points and/ or Concerns (Open questions - *Fill in what is relevant for you*)**

6a. Why did you express interest for participation in the training course?

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5b. What else would you consider essential/ expect to be included?

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6c. Provide feedback on the trainers.

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| |

*Thank you!*

**Evaluation Form of the Cloud-Based Webinar Seminar**

Thank you for participating in the course. We would like to ask you to spend a few minutes of your time to fill in this evaluation form. The information you will provide will form the basis on the pros and cons that came out of the course, thus helping the organisers to take any necessary corrective action. Furthermore, your answers will provide elements for the management and extent of fulfilment of the expectations of the course. Your email is required so you receive further updates on the content.

Name(optional):

| |
|---|
| |

*Status/Position (teacher, headmaster, professor, educational administrator etc):

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Specialization:

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Organization:

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*Country:

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*Email:

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| |

1. **Pre-training Preparation. The following statements were valid before attending the course.**

| **5 = I totally agree; 4 = I agree; 3= I fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|
| I had a basic idea of the concepts and process involved in the content of the course | | | | | | |
| I was informed about the goals and objectives of the course before participation. | | | | | | |
| I took the course after some preparation on the ideas around the topic of cloud computing in education | | | | | | |

2. **The following statements are valid for the Structure and Content of the Course**

| **5 = I totally agree; 4 = I agree; 3=fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|
| The programme of the course was well balanced and structured allowing for comprehension of the various units presented | | | | | | |
| There were well-supported audio-visual material as well as other educational aids to explain and clarify the content presented | | | | | | |
| The course was enriched with challenges and motivating ideas | | | | | | |
| The depth and difficulty of the concepts and ideas presented were at levels that I could understand and grasp. | | | | | | |
| The concepts and processes presented are related and useful for my work. | | | | | | |
| There were opportunities for transferring and applying the course content to my every day work. | | | | | | |
| There was compatibility and harmony between the content of the various modules | | | | | | |
| Now I understand much better the tasks and responsibilities ahead as well as my role in future activities. | | | | | | |

**3. The following statements are valid for the Learning Experience and Impact**

| **5 = I totally agree; 4 = I agree; 3=fairly agree; 2 = I disagree; 1; = I totally disagree *(Just put an X in the appropriate box!). NA= non-applicable*** | **5** | **4** | **3** | **2** | **1** | **NA** |
|---|---|---|---|---|---|---|
| I feel that, by participating in the course, I acquired a broad range of knowledge, skills and competences in the area. | | | | | | |
| I feel that the course provided me with the opportunity of improving and enriching my acquaintance with the topic | | | | | | |
| I feel that after taking the course I have new opportunities for fulfilling and improving the expectation in my job | | | | | | |
| The presented material in the course is decisively contributing to the aims and objectives of the topic | | | | | | |
| The evidence I have from the activities in the course is that it provides the framework for satisfactory implementation/use | | | | | | |
| In my view I expect that the course provided the means for positive and constructive impact. | | | | | | |

**4. General Points and/or Concerns (Open questions - *Fill in what is relevant for you*)**

4a. Why did you express interest for participation in the training course?

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|---|
| |

4b. What else would you consider essential/expect to be included?

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4c. How did you find online tool used for this course? Please discuss any technical problems.

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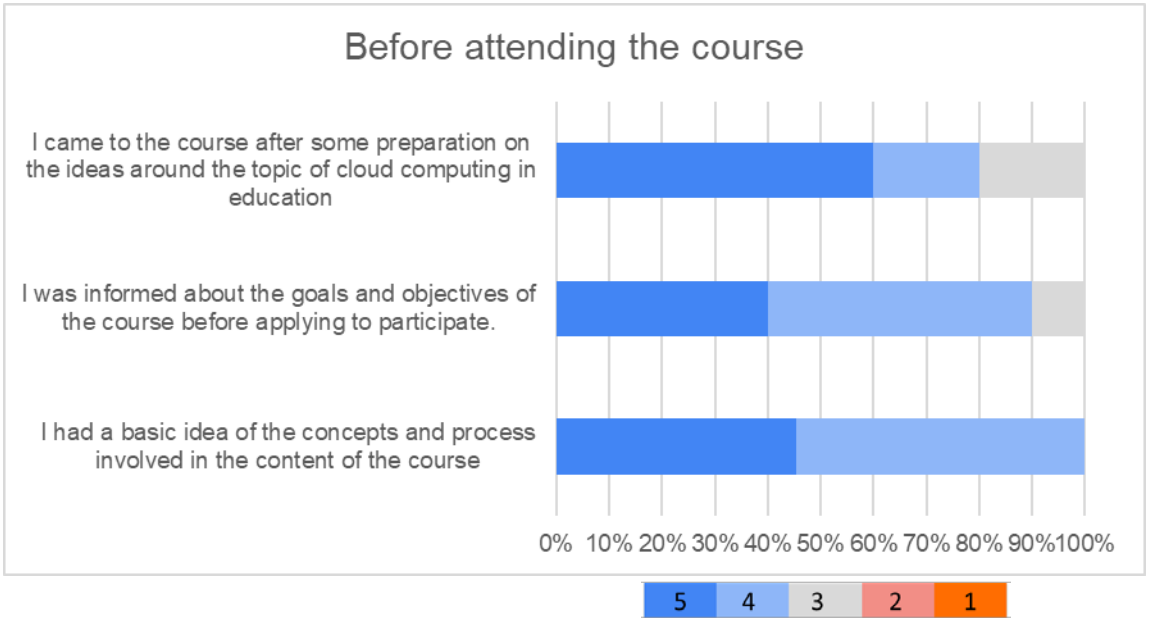
4d. Are you planning to apply to receive the related certification?.

YES NO MAY BE

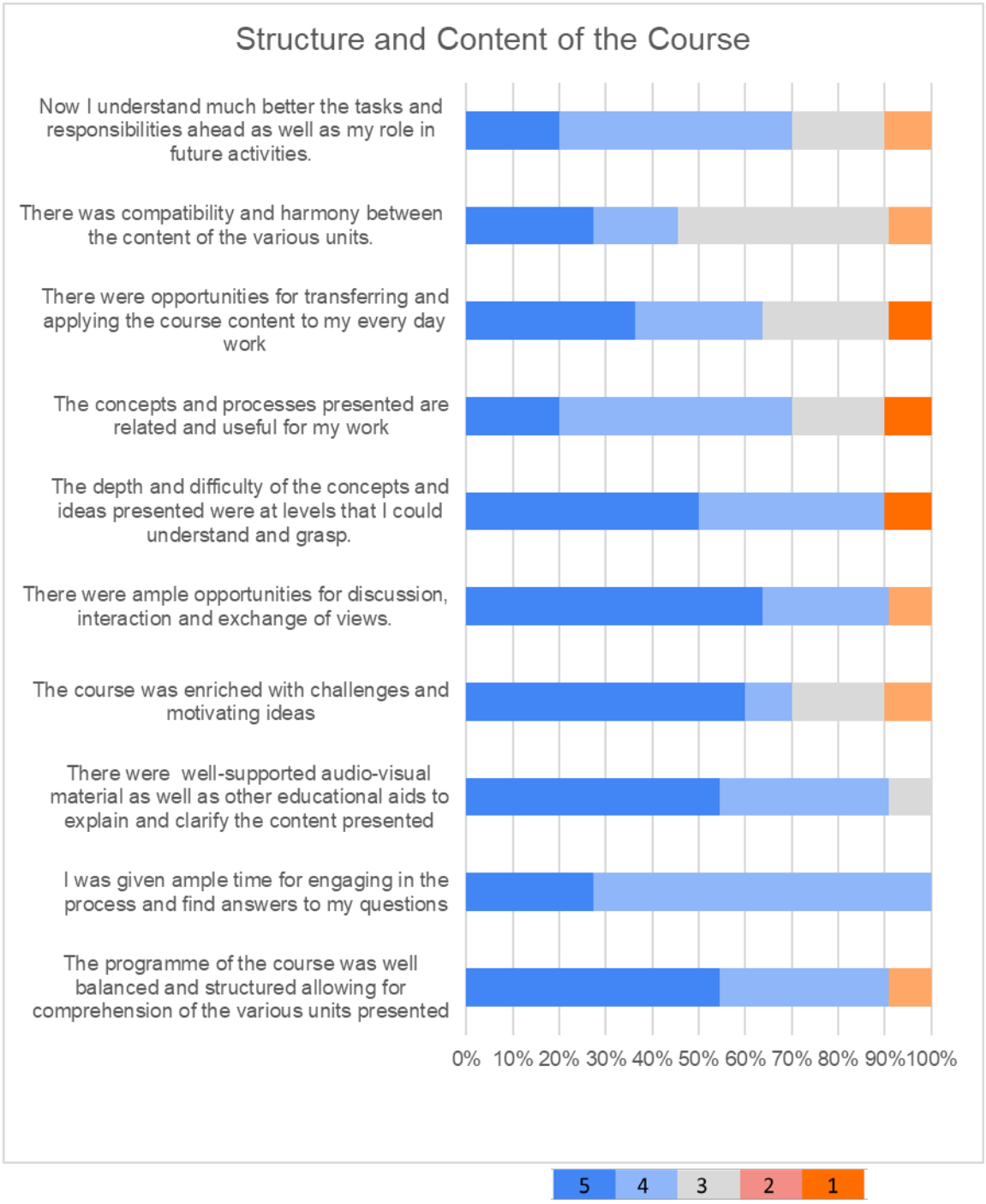
*Thank you!*

## [b] Exploitation of evaluation results

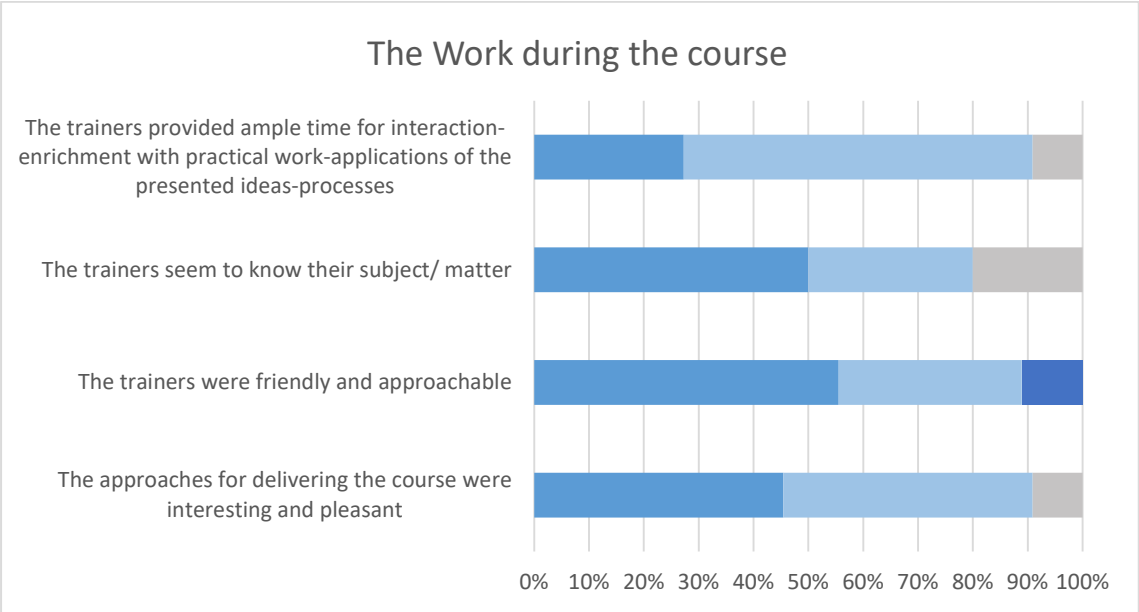
The evaluation results for the face to face training (C1) are summurized below:
The following statements were valid before attending the course:



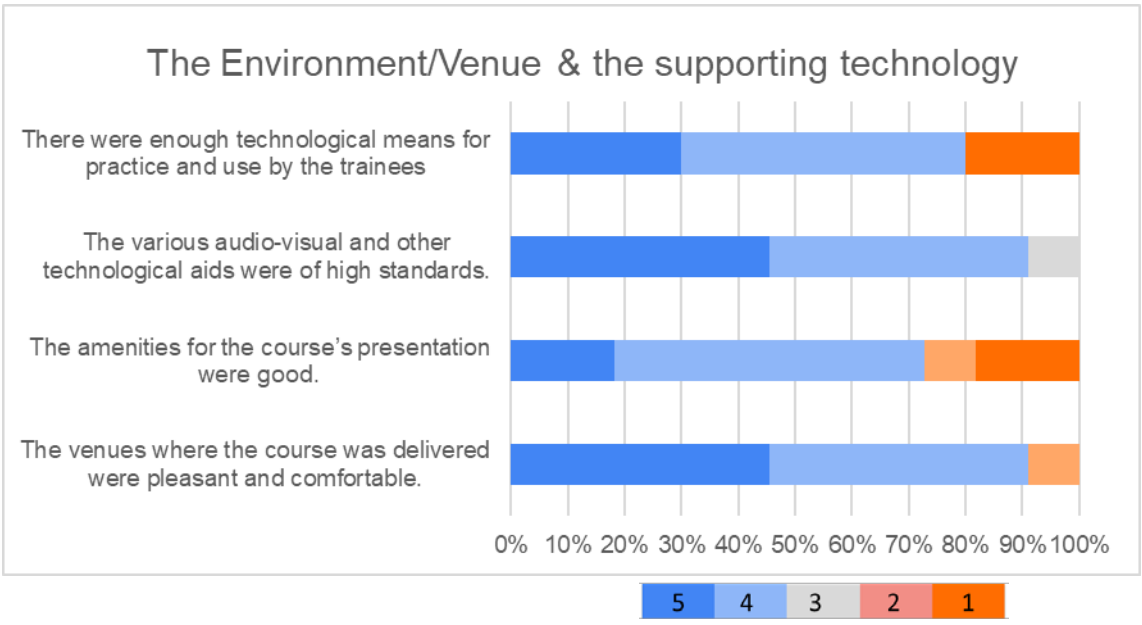
The following statements are valid for the Structure and Content of the Course:



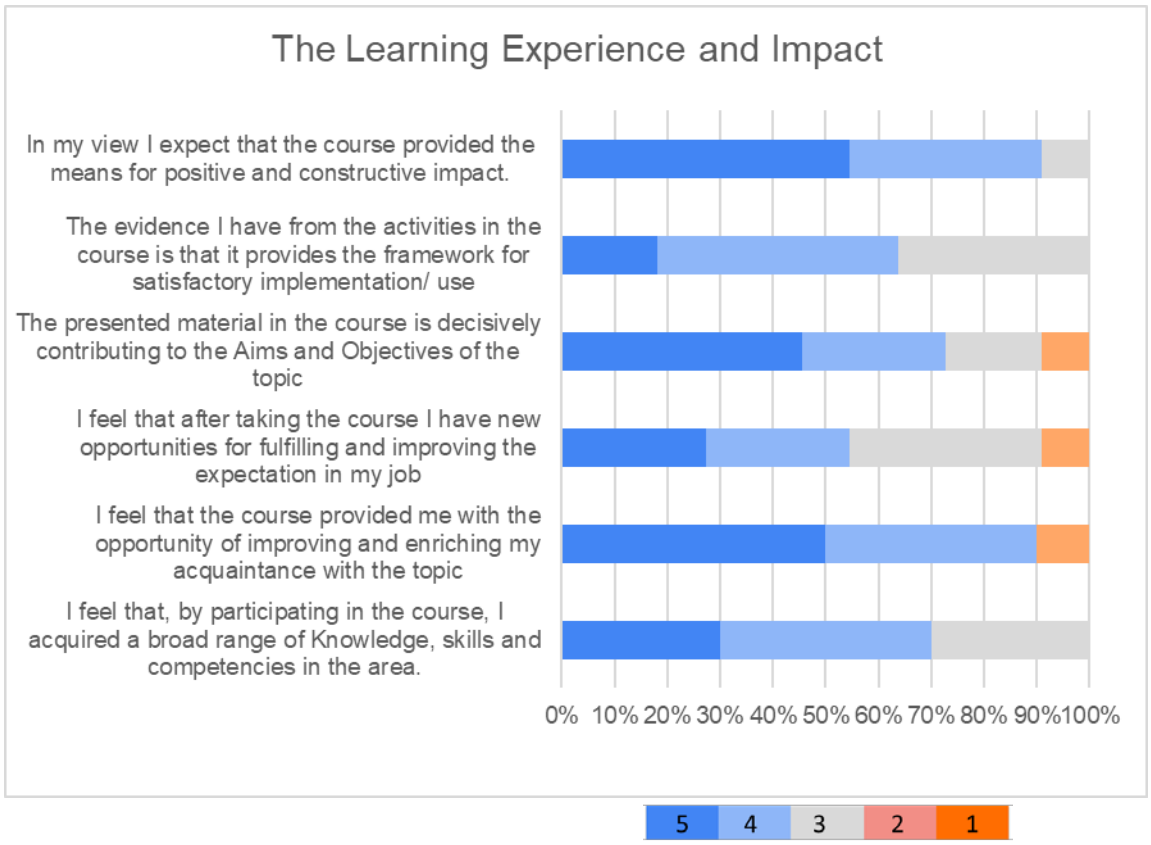
The following statements are valid for the delivery, the presenters/trainers and the work during the course:




The following statements are valid for the environment/venue and the supporting technology:



The following statements are valid for the Learning Experience and Impact:




The following statements, as general points and concerns, are provided by the trainees in the open questions:

*Why did you express interest for participation in the training course?*

- I'm really interested in the tools that can be used to improve learning through digital world.
- For my professional development and interest
- Because I'm a partner in the project.
  Interest in knowing if the competence framework was understood and if the activities are adequate to respond to the demands and train a leader in the cloud education
- Cloud Computing interests me a lot and leadership also.
- Because of previous experience in Cloud Computing. Leadership issue is of importance to me.

*What would you consider essential or expect to be included?*

- *It is a pilot* course, time is scarce to be able to implement all the activities and assess whether the participants have "acquired" the different competences of the six areas.
- More examples perhaps and actual practices on each competence.
- More Leadership models
- More audio-visual examples in the activities

**Conclusions from Evaluation**

The trainees in the course were given 27 statements concerning various aspects that are considered as important factors for achieving the objectives of the course.

Considering that answers previously presented and that the majority of the people that answered the questions are supporting the idea of “I agree” with the corresponding statement (average of the answers for each question ≥3,5) we can say that the course was successfully offered.

In view of that it was suggested there was a review of the content for the material of webinar course.

## [c] Dissemination channels to be employed and target audience

As a final phase of IO3, partners utilize their dissemination channels to inform the target audience of the course. This does not fall under the category of project dissemination (Project Management) but is a part of O3 and effort has been planned for all partners. Indicative media are (the evidence of all the related events are in the project log file of dessimination):

1. L-Cloud Website
2. L-Cloud Newsletter (sent to partners’ mail-lists)
3. Conferences, Workshops and other public events around the world
4. Presentations at Local Events and Meetings
5. Post on Partners’ and personal Social Media

## [d] Course Certification

After the completion of the online course participants will be certified as "**Adaptable Cloud Education Leader**" according to the following:

**PART A. Online Course/Modules (MOOC)**

- Study Modules 1-6
- Required Answer for each module after studying
- A summary of 100-200 words for each module completed (feedback window per module for impressions and suggestions – OPTIONAL)

**PART B: Application of the course learning into the Education Environment – Competence development for becoming adaptable cloud education leader**

B1. Write a **report** including:

1. methodology used
2. plan/implementation/duration
3. results & impact/evaluation (measuring-indicators-evidence-cloud based tools used)
4. continuation/sustainability plan

Length of report: 300 words (with annexes, links or other material used),
Criteria: Structure, Methodology and Creativity, Plan of Implementation, Results, Impact, Risks & Evaluation, Sustainability

B2. Produce a **video** of 3-5 minutes communicating the application described in Part B1 as a creativity vision report and evidence for its application and results, self-reflections and future steps. This video could be developed in either version:

- candidate's streaming video
- a presentation video with candidate's voice over

Criteria: communicating the important key factors so the listener understands what has been implemented and what is the result and impact.

*Note: all participants should give a GDPR acceptance before submission.*

# Indicative Bibliography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# APPENDIX

## L-Cloud: ATHENS TRAINING PROGRAM (C1)

| No. | Topic-Activity | Responsible | Min | Time | Face2Face (F2F) | Online |
|---|---|---|---|---|---|---|
| | **DAY 1: Monday 27 January 2020** | | | **14:30 – 18:30** | ***Day Moderator:*** | ***Gregory*** |
| | Welcome Lunch **(free, Dais Restaurant, Level -1)** | | | 14.30 - 15.30 | | |
| | Registration **(Dais Conference Room, Level 1)** | | | 15.30 | | |
| * | WELCOME note | Doukas Head | 10′ | 15.30 – 15.40 | | |
| 01 | 1.1 Scope of the Course, Objectives, Certification, Discussion of Course Agenda | Gregory | 20′ | 15.40 – 16.00 | Presentation & Discussion | Content |
| | 1.2 Who are you? | Harry/Yannis | 15′ | 16.00 – 16.15 | Icebreaker | |
| 02 | Best Practices on Adaptive Education Cloud Leaders [O1] | Carlotta | 45′ | 16.15 – 17.00 | Presentation & Discussion | Content |
| | Coffee Break *(free)* | | 30′ | 17.00 – 17.30 | | |
| 03 | 3.1 Evolution of Education 1.0-4.0<br>3.3 Reflection for the day | Gregory<br>Harry | 30′ | 17.30 – 18.00<br>18.00 – 18.10 | Presentation & Discussion | Results from F2F |
| * | Social Event - Dinner *("Mazomos" near School 15 €)* | * | | 18.30 - 20.00 | Optional | - |

| | **DAY 2: Tuesday 28 January 2020** | | | **09:30 – 16:30** | ***Day Moderator:*** | ***Harry*** |
|---|---|---|---|---|---|---|
| 04 | Qualification Framework for Education Cloud Leaders [O2 - Focus Group results] | Sandra | 30′ | 9.30 – 10.00 | Presentation & Discussion | Content |
| 05 | L-Cloud **POD** Model: **P**edagogical - **O**rganizational/Management - **D**igital | Sandra | 45′ | 10.00 – 10.45 | Presentation & Discussion | Content |
| | Coffee Break *(free)* | | 30′ | 10.45 – 11.15 | | |
| 06 | L-Cloud Competence Area:<br>**Innovation, Creativity and Creation** | Sandra | 90′ | 11.15 – 12.45 | 1st selected competence activity | Content & F2F |
| | Lunch *(School Restaurant, 8 €)* | | 90′ | 13.00 – 14.30 | Optional | |
| 07 | L-Cloud Competence Area:<br>**Communication, Collaboration and Participation** | Gabriela | 75′ | 14.30 – 15.45 | 2nd selected competence activity | Content & F2F |
| | Coffee Break *(free)* | | 30′ | 15.45 – 16.15 | | |
| 08 | QA, Feedback and Closing of the Day | Harry | 15′ | 16.15 – 16.30 | Participants | Content |
| * | Free Time *(pls ask us for info about dinner)* | | | | | - |

| | **DAY 3: Wednesday 29 January 2020** | | | **09:30 – 14:30** | ***Day Moderator:*** | ***Yannis*** |
|---|---|---|---|---|---|---|
| 09 | Cloud Based Tools & Digital Literacy | Chryssanthe<br>Yannis | 30′ | 9.30 – 10.00 | Presentation & Discussion | Content |
| 10 | L-Cloud Competence Area:<br>**Pedagogical and Organizational** | Tom/Yannis | 90′ | 10.00 – 11.30 | 3rd selected competence activity | Content & F2F |
| | Coffee Break *(free)* | | 30′ | 11.30 – 12.00 | | |
| 11 | L-Cloud Competence Area:<br>**Professional Development** | Harry | 90′ | 12.00 – 13.30 | 4th selected competence activity | Content & F2F |
| 12 | QA, Feedback and Closing the Day | Harry | 15′ | 13.30 – 13.45 | Participants | - |
| | Lunch *(School Restaurant, 8 €)* | | 60′ | 13.45 – 14.30 | Optional | |
| * | **Around Acropolis Walk** *(Leaving from Athens-Cyprio Hotel Lobby)* | Elpi | 120′ | 18.30 – 20.30 | All (Free) | - |
| * | **Music Dinner** *("Tivoli" Center of Athens, Dinner 25 €)* | Yannis | 90 | 20.30 – 22.00 | All (Optional) | - |

| | **DAY 4: Thursday 30 January 2020** | | | **9:30 – 16:00** | ***Day Moderator:*** | ***Carlotta*** |
|---|---|---|---|---|---|---|
| 13 | Preparation for Participants Friday Competence Presentation | All Trainers | 30′ | 9.30 – 10.00 | Participants | Content |
| 14 | L-Cloud Competence Area:<br>**Ethics and Responsibility** | Andreas | 90′ | 10.00 – 11.30 | 5th selected competence activity | Content & F2F |
| | Coffee Break (free) | | 30′ | 11.30 – 12.00 | | |
| 15 | L-Cloud Competence Area:<br>**Social-Intercultural Relationship, internalization** | Carlotta | 90′ | 12.00 – 13.30 | 6th selected competence activity | Content & F2F |
| | Lunch *(School Restaurant, 8 €)* | | 60′ | 13.30 – 14.30 | Optional | |
| 16 | CONSULTATION AND VALIDATION<br>Participants prepare for Friday Presentations | Harry +<br>All Trainers | 60′ | 14.30 – 15.30 | Participants<br>*(supporting each other)* | Results from F2F |
| | Coffee Break *(free)* | | | (during sessions) | | |
| 17 | QA, Feedback and Closing the Day | Harry | 15′ | 15.30 – 15.45 | Participants | - |
| * | Free Time *(pls ask us for info about dinner)* | | | | | - |

| | **DAY 5: Friday 31 January 2020** | | | **09:30 – 12:30** | **Day Moderator** | **Andreas** |
|---|---|---|---|---|---|---|
| 19 | PARTICIPANTS PRESENTATIONS<br>(on L-Cloud Competence Areas - Activities) | Gregory +<br>All Trainers | 90′ | 9.30 – 11.00 | Presentations by participants | Content |
| | Coffee Break | | 30′ | 11.00 – 11.30 | | |
| 20 | Planning next steps for Certification of Participants | Gregory +<br>All Trainers | 15′ | 11.30 – 11.45 | Participants<br>Trainers | |
| 21 | Course Evaluation, Awarding of Certifications and Closing | Gregory +<br>Trainers | 30′ | 11.45 – 12.15 | Participants and Trainers | [Form]<br>Awards |

- **1st Day**: Monday 27/01/2019, 14:30-18:00 (2 sessions 3.5 h)
- **2nd Day**: Tuesday 28/01/2019, 10:00-17:00 (4 sessions 7.0 h)
- **3rd Day**: Wednesday 29/01/2019, 09:00-14:00 (3 sessions 5.0 h) & ***FREE AFTERNOON for CULTURAL EVENT***
- **4th Day**: Thursday 30/01/2019, 10:00-17:00 (4 sessions 7.0 h)
- **5th Day**: Monday 31/01/2019, 9:00-12:30 (2 sessions 3.5 h)

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