

L-CLOUD: Developing Tomorrow's Cloud Education Leaders

WORKSHOP – FOCUS GROUP

Partners organizations

City, Date

AGENDA

- 1. Presentation L-Cloud Project (10'):**
 - 1.1. Goals**
 - 1.2. Partners**
 - 1.3. Outputs**
- 2. Conceptual Framework (10')**
- 3. Phases: L-Cloud Competence framework design (20')**
- 4. Consultation and validation Competence Framework (1 h)**
 - 4.1. Individual.**
 - 4.2. Group discussion.**
- 5. Sum up, close and end of the meeting (20')**

GOALS

- ✓ **Develop Guidelines for Skills and Competence for Adaptive Educations Cloud Leaders.**
- ✓ **Develop a Qualification Framework for Education Cloud Leaders based on Skills and Competence → *Competence framework consultation and validation.***
- ✓ **Design a course for developing adaptive education cloud leaders.**

PARTNERS

Coordinator: European Association of Career Guidance (EACG) → Cyprus

University of Barcelona (UB) → Spain

Colegiul National Pedagogic Mircea Scarlat (CNPMS) → Romania

European Association of Geographers (EUROGEO) → Belgium

Doukas School → Cyprus

Dlearn → Italy

OUTPUTS



- ✓ **01: Devise a guidelines for Skills and Competences for Adaptive Education Cloud Leaders →**
October 2018 – February 2019
- ✓ **02: Develop a Qualification Framework for Education Cloud Leaders based on Skills and Competence:**
 - 02 - A1: Definition of the competence framework → February – June 2019
 - **02 - A2: Competence framework consultation and validation → June – October 2019**
 - 02 - A3: Presentation of a qualification framework for Education Cloud Leaders → November 2019.
- ✓ **03: Design a course for developing adaptive education cloud leaders → September 2019 – June**

DEFINING COMPETENCE



The **European Commission** (2013, p. 10) highlights several characteristics of the concept of **competence** as applied to education:

- ✓ It involves tacit and explicit knowledge, cognitive and practical skills, as well as dispositions (motivation, beliefs, value orientations and emotions).
- ✓ It enables to meet complex demands, by mobilizing resources in context and deploying them in a coherent way.
- ✓ It empowers to act professionally and appropriately in a situation.
- ✓ It allows teachers for undertaking tasks effectively (achieving the desired outcome) and efficiently (optimizing resources and efforts).
- ✓ It can be demonstrated to a certain level of achievement along a continuum.



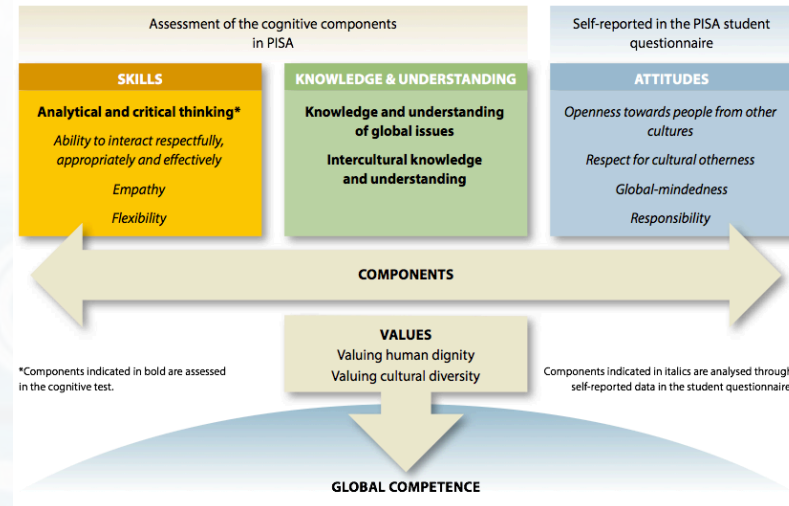
MODELS of COMPETENCES



WEF



UNESCO



What do children have to learn?



OECD

Knowledge Taxonomies

BLOOM'S TAXONOMY - Original (1956)



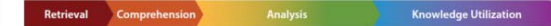
REVISED BLOOM'S TAXONOMY - Anderson and Krathwohl (2000)



WEBB'S DEPTH of KNOWLEDGE (1997)



NEW TAXONOMY on EDUCATIONAL OBJECTIVES - Marzano and Kendall (2007)



European e-Competence Framework 3.0

European e-Competence Framework 3.0 overview

Dimension 1 5 e-CF areas (A - E)	Dimension 2 40 e-Competences identified	Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3-8				
		e-1	e-2	e-3	e-4	e-5
A. PLAN	A.1. IS and Business Strategy Alignment					
	A.2. Service Level Management					
	A.3. Business Plan Development					
	A.4. Product/Service Planning					
	A.5. Architecture Design					
	A.6. Application Design					
	A.7. Technology Trend Monitoring					
	A.8. Sustainable Development					
	A.9. Innovating					
B. BUILD	B.1. Application Development					
	B.2. Component Integration					
	B.3. Testing					
	B.4. Solution Deployment					
	B.5. Documentation Production					
	B.6. Systems Engineering					
C. RUN	C.1. User Support					
	C.2. Change Support					
	C.3. Service Delivery					
	C.4. Problem Management					
D. ENABLE	D.1. Information Security Strategy Development					
	D.2. ICT Quality Strategy Development					
	D.3. Education and Training Provision					
	D.4. Purchasing					
	D.5. Sales Proposal Development					
	D.6. Channel Management					
	D.7. Sales Management					
	D.8. Contract Management					
	D.9. Personnel Development					
	D.10. Information and Knowledge Management					
	D.11. Needs Identification					
	D.12. Digital Marketing					
E. MANAGE	E.1. Forecast Development					
	E.2. Project and Portfolio Management					
	E.3. Risk Management					
	E.4. Relationship Management					
	E.5. Process Improvement					
	E.6. ICT Quality Management					
	E.7. Business Change Management					
	E.8. Information Security Management					
	E.9. IS Governance					



DEFINING CLOUD COMPUTING



Cloud Computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

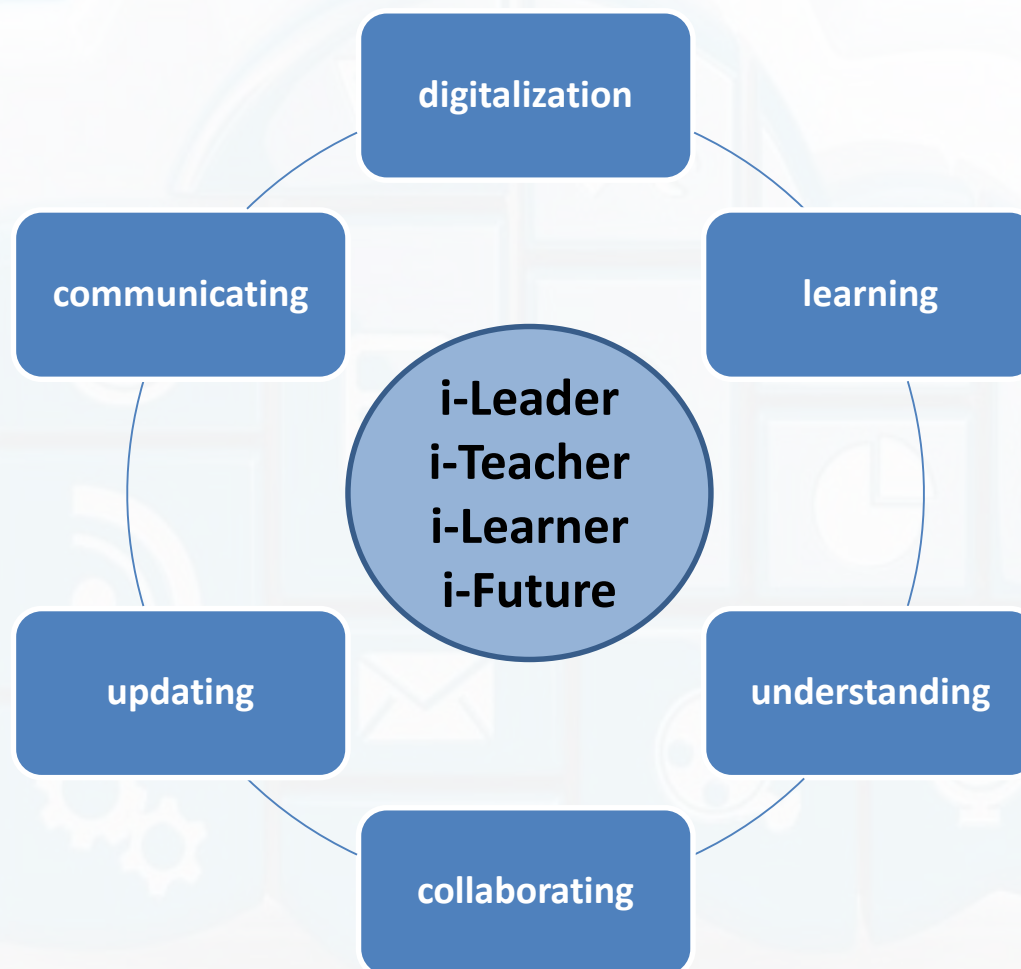
Mell & Grance (2011, p. 2).



DEFINING CLOUD COMPUTING



Koutsopoulos & Kotsanis (2014) identify a new **paradigm** → **Community or School on the Cloud**.



DEFINING CLOUD COMPUTING



The profile of an expert in Cloud Computing requires training in a series of basic competencies:

1. Assess the need to use a Cloud scenario for each type of institution.
2. Assess the strengths and weaknesses of Cloud Computing.
3. Identify the most suitable type of cloud: public, private or hybrid.
4. Master the fundamental elements of a cloud: service catalog, self-service portal, automation, analysis, etc.
5. Know the different virtualization solutions and the role they play in the world of Cloud Computing.
6. Know the main providers of cloud computing platforms (e.g. Amazon EC2, Microsoft Azure, Google, Salesforce, etc.).



DEFINING EDUCATIONAL LEADERSHIP

Personal qualities

- Flexibility, constancy, autonomy, reliability, integrity and balance

Interpersonal skills

- Empathy, concern for others, assertiveness, active listening, clarity and teamwork

Leadership capacity

- Delegate, motivate, quality control, staff development, openness to the outside world, leadership

Technical management skills

- Project planning, negotiation, organisation of resources, understanding of context and negotiation

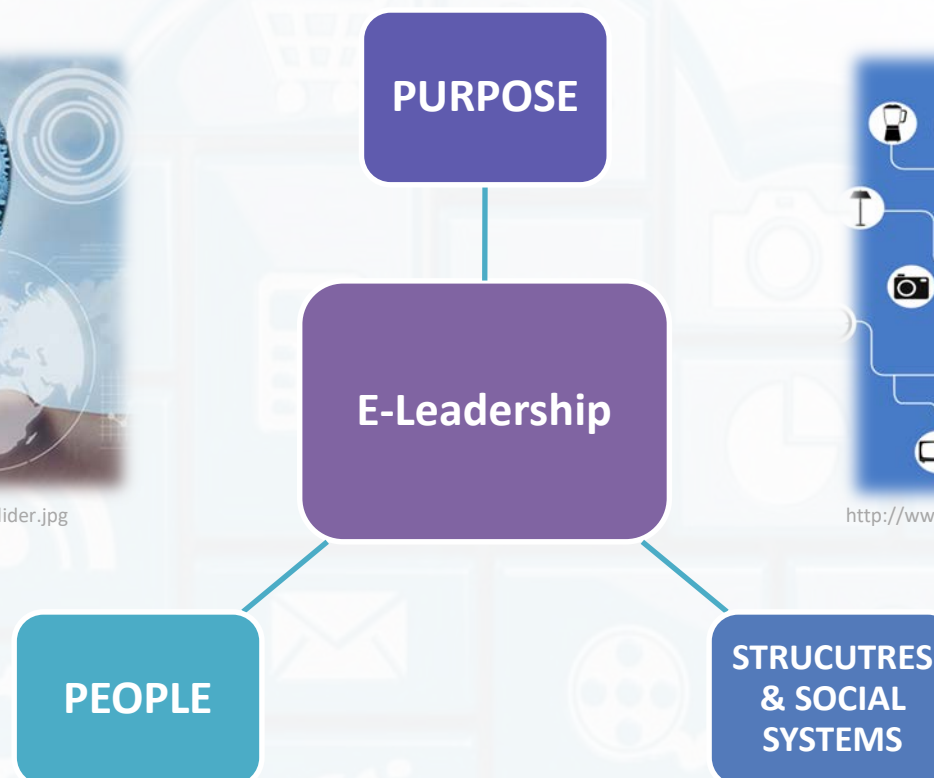
DEFINING EDUCATIONAL LEADERSHIP



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Donert (2018)

PHASE 1: STATE OF THE ART



EACG

- Five Traits of a Good Educational Leader (USA).
- The Teacher Leadership Competencies (USA).
- Educator and School Leader Competencies Can promote systems coherence in Competency Education (USA).
- Teacher Leader Competency Framework (USA).
- Nine Competencies for Teaching Empathy (USA).
- Leadership Competency Framework (Australia).
- Top 10 Digital Skills for Education Leaders (USA).
- Charlotte Danielson's Framework for Teaching (USA).
- Digital Learning Framework for Post-Primary Schools (Ireland).
- Professional Development Framework for Digital Learning (South Africa).
- Technology in Education Framework: Teaching and Learning (Canada).

UB

- Educational leadership competence frameworks LOMCE (Organic Law) (Spain).
- Common Framework of Digital Teaching Competence (Spain).
- Catalonia: Digital framework - Digital Agenda 2020 (Catalonia, Spain).
- Digital Teaching Competence of the Teachers of Catalonia (Catalonia, Spain).
- Digital competences in Spain, how to improve them? (Spain).



PHASE 1: STATE OF THE ART



**Colegiul
National
Pedagogic
“Mircea
Scarlat”**

- Leadership Competency Framework (USA).
- Standards for school leaders: competency frameworks and their applicability (UK).
- UNESCO ICT Competency Framework for Teachers.

Doukas

- KIPP Leadership Framework and Competency Model (USA).
- Teach to Lead – Leadership Competency Framework (Australia).
- Leadership Competency Framework (USA).

D-Learn

- Leadership Competency Framework (UK).
- Digital Competence of Educators (Luxemburg).


PHASE 1: STATE OF THE ART

EUROGEO


- Education competency frameworks (UK).
- Digital Skills competency framework (UK).
- Strategisch competentie Denken (The Netherlands).
- Schoolleidersregister po basiscompetenties (The Netherlands).
- Het geheim van de innovatieve schoolleider (The Netherlands).
- Waar blijft de middenmanager? Een onderzoek naar de strategische rol van team- en afdelingsleiders in het voortgezet onderwijs (The Netherlands).
- De leidinggevende in het onderwijs als regisseur (The Netherlands).
- Competentieontwikkeling M-decreet (Belgium).
- Een nieuw profiel voor de leraar secundair onderwijs. Hoe worden leraren daartoe gevormd? (Belgium).

STRUCTURING AND REFINING AREAS, DIMENSIONS AND COMPETENCES

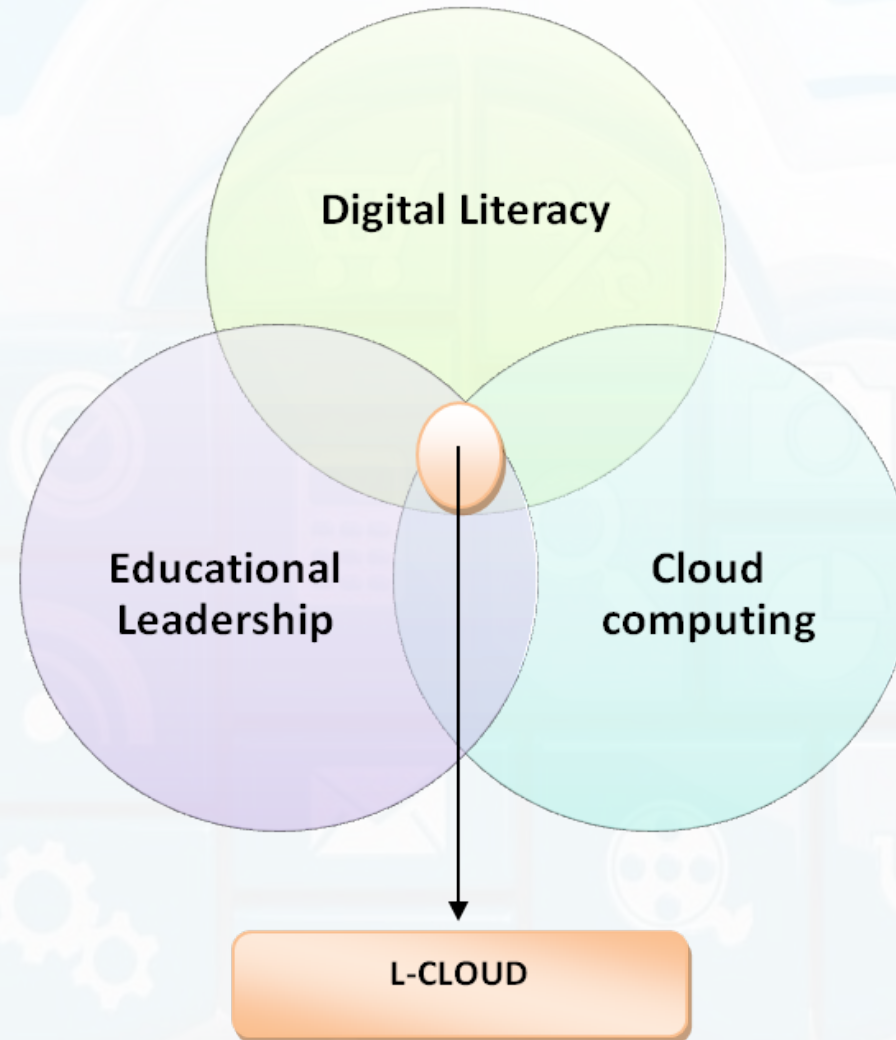
PHASE 2: IDENTIFICATION DIMENSIONS AND COMPETENCES



Dimensions	N. Competences	Dimensions	N. Competences
Communication	16	Decision making	5
Collaboration	22	Personal qualities	27
Participation	8	Productivity and Accountability	3
Teamwork	5	Potential	1
Mobility	1	Knowledge	13
Digital competence	90	Teaching	6
Digital Identity	5	Ethics	6
Social & Civic Comp.	10	Inclusion, diversity & equality	2
Sense of initiative	1	Relationship	5
Learning to learn	19	Design, planning and didactic	9
Cultural awareness & expression	4	Organization & management space	4
Leadership and responsibility	134	Development professional	11
Information / media literacy	6	Entrepreneurship & internalization	2
Creativity and Innovation	14	Sustainability	2
Critical thinking	7	Management	14
Problem solving	6	Effective and strategy	3
Flexibility and Adaptability	3	TOTAL 33	TOTAL 434



PHASE 2: IDENTIFICATION DIMENSIONS AND COMPETENCES

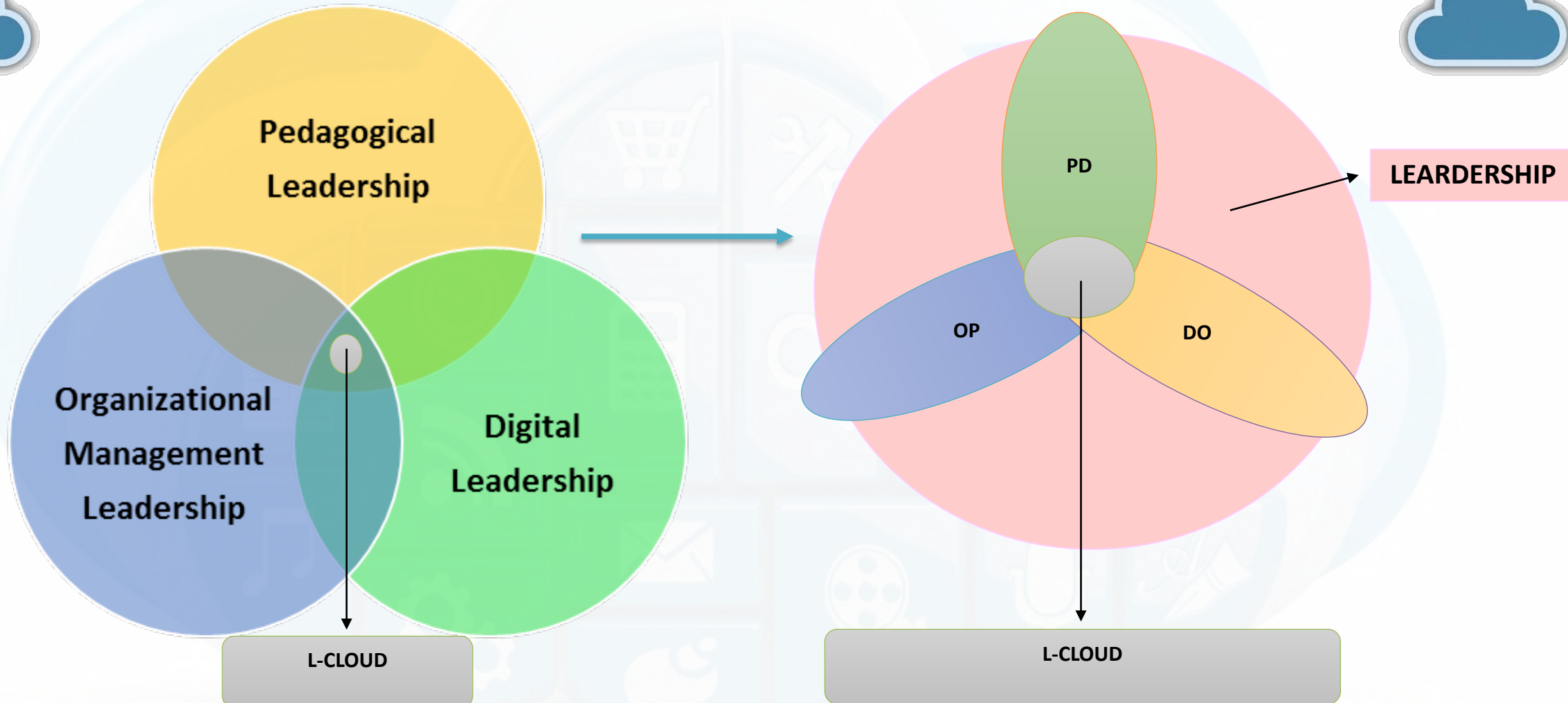


THINKING

- ✓ Which competences should a leader in cloud computing have?
- ✓ What would be the most important areas or dimensions of these competences?
- ✓ What elements should the competency framework of a leader in cloud computing have?



PHASE 3: THE POD MODEL



PHASE 3: THE POD MODEL

Two-by-two intersections

AXES	AREAS
PEDAGOGICAL & ORGANITZATIONAL (PO)	<ol style="list-style-type: none"> 1. Flexibility and Adaptability 2. Knowledge 3. Teaching 4. Learning to learn 5. Social, civic and intercultural inclusion
ORGANITZATIONAL & DIGITAL (OD)	<ol style="list-style-type: none"> 1. Organizational and management digital resources 2. Relationship and internalization
DIGITAL & PEDAGOGICAL (DP)	<ol style="list-style-type: none"> 1. Design, planning and didactics 2. Creative and development 3. Ethics and responsibility digital

PHASE 3: THE POD MODEL

Transversal axis

AXE	AREAS
PO+OD+DP AND LEADERSHIP	<ol style="list-style-type: none">1. Communication2. Collaboration and participation3. Innovation and creativity4. Professional Development5. Leadership and responsibility



PHASE 3: THE POD MODEL

AREAS	COMPETENCES
1. Communication, Collaboration and Participation	<p>1.1. Capacity for communication, collaboration and active participation in educational networks in cloud computing environments.</p> <p>1.2. Capacity to establish a shared vision about cloud computing in learning environments</p> <p>1.3. Skill to build professional networks with other school leaders aiming to guide and support learners in cloud computing.</p> <p>1.4. Dispositions to team building at the school</p> <p>1.5. Disposition for active participation in educational networks in cloud computing environments.</p>
2. Innovation, creativity and creation	<p>2.1. Knowledge for the creation and dissemination of educational contents and resources in cloud computing.</p> <p>2.2. Ability to select, apply resources, and use methodological cloud computing-based strategies in teaching and learning.</p> <p>2.3. Ability to lead pedagogical innovations in cloud computing coherence with the educational project and the infrastructures of the center.</p> <p>2.4. Ability to creatively use of cloud computing in different educational contexts.</p> <p>2.5. Disposition to research, innovation and technology transfer networks in cloud computing.</p> <p>2.6. Disposition to express creative ideas, experiences and emotions in cloud computing.</p>
3. Professional Development	<p>3.1. Construction and reflective practice of the professional digital self-identity.</p> <p>3.2. Disposition to Incorporate teaching innovations based on cloud computing.</p> <p>3.3. Ability to active participation in educational research and practitioner networks, virtual learning communities and professional development in cloud computing.</p> <p>3.4. Disposition to participate in cloud computing Professional Development programmes (CPD).</p> <p>3.5. Promoting reflexive practice and professional development focused on engagement, responsibility, teaching, learning and leadership, and keeping abreast of change.</p>



PHASE 3: THE POD MODEL



4. Leadership, ethics and responsibility

- 4.1. **Knowledge on** how to effectively and ethically use of the different types of cloud computing (public, private and hybrid) and their services, tools and functionalities (SaaS, PaaS and IaaS).
- 4.2. **Knowledge on** how to integrate **cloud computing** and resources to enhance learning objectives.
- 4.3. **Knowledge on** legal issues about safety, data protection, privacy and healthy use **of cloud computing.**
- 4.4. **Knowledge to** solve complex problem solving in cloud computing.
- 4.5. Negotiation **skills** (social and political interactions) with multiple educational stakeholders, actors and contexts, and decision making in **cloud computing.**
- 4.6. **Ability to** manage personal emotions.
- 4.7. **Ability to** critically assess your own practice as leaders and develop their understanding of effective and sustainable **leadership.**
- 4.8. **Disposition to** accept responsibilities to planning and implementing **cloud computing** in education.
- 4.9. **Disposition to** Identifying and removing barriers **to create/maintain a cloud computing infrastructure.**
- 4.10. **Disposition** to motivating, encouraging, trusting and valuing colleagues **to create and use cloud computing in their contexts**
- 4.11. **Disposition** to social and global awareness and responsibility in relation to cloud computing
- 4.12. **Disposition to become** aware of the ethical dimensions of **leadership in cloud computing.**



PHASE 3: THE POD MODEL

4. Social and intercultural relationship and internalization	<ul style="list-style-type: none">4.1. Knowledge on how to build and maintain effective relationships with the educational community through cloud computing.4.2. Skills on how to work effectively with the community, partners and stakeholders of cloud computing.4.3. Ability to promote mobility, entrepreneurship, training and cooperation in Europe on cloud computing.4.4. Disposition to respecting and being aware of the diversity of learners' cultures and identifying common values.4.5. Disposition to foster a commitment to inclusion, cross-cultural skills and equal opportunity.4.6. Disposition to promote and build an adequate digital identity in cloud computing.
5. Pedagogical and Organizational	<ul style="list-style-type: none">5.1. Knowledge on how to access, analyze, validate, reflect on knowledge in a variety of cloud computing environments.5.2. Knowledge on class management, assessment and feedback processes in cloud computing.5.3. Pedagogical content knowledge in cloud computing in relation to different subjects, its content and structure.5.4. Knowledge on using, developing, creating and management of cloud computing, including applications, devices, and networks5.5. Skills to identify students' learning needs, and learning progress in the cloud.5.6. Skills to creating, organizing, sharing and publishing digital resources taking into account different cloud computing learning environments.



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CONSULTATION AND VALIDATION



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CONSULTATION AND VALIDATION



1. Three or four heterogeneous groups (3 people).
2. Each group reflects upon (30')
 - 2.1. The different areas and competences
 - 2.2. How well do you think that the proposed framework addresses the criteria under which it has been developed? In what respects it might need improvement?
 - 2.3. Is/Are the competence(s) included the most relevant one(s) per area? Which other competence(s) might be also included?
 - 2.4. How appropriate are they for the educational leaders cloud computing' competences ? In what respects they can be improved?



CONSULTATION AND VALIDATION



3. All the groups discuss about (30'):
 - 2.1. The different areas and competences
 - 2.2. How well do you think that the proposed framework addresses the criteria under which it has been developed? In what respects it might need improvement?
 - 2.3. Is/Are the competence(s) included the most relevant one(s) per area? Which other competence(s) might be also included?
 - 2.4. How appropriate are they for the educational leaders cloud computing' competences ? In what respects they can be improved?



SUM UP, CLOSE AND END THE MEETING



Sum up and close the event (20'):

- 1. The main ideas of the session will be summarized.**
- 2. explain what will be done with the data collected, as well as elicit the next steps of the project.**
- 3. Will be explain what will be done with the data collected.**
- 4. Participants will fill in the event evaluation questionnaire**



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THANK YOU VERY MUCH

Partner Organization

City, Date