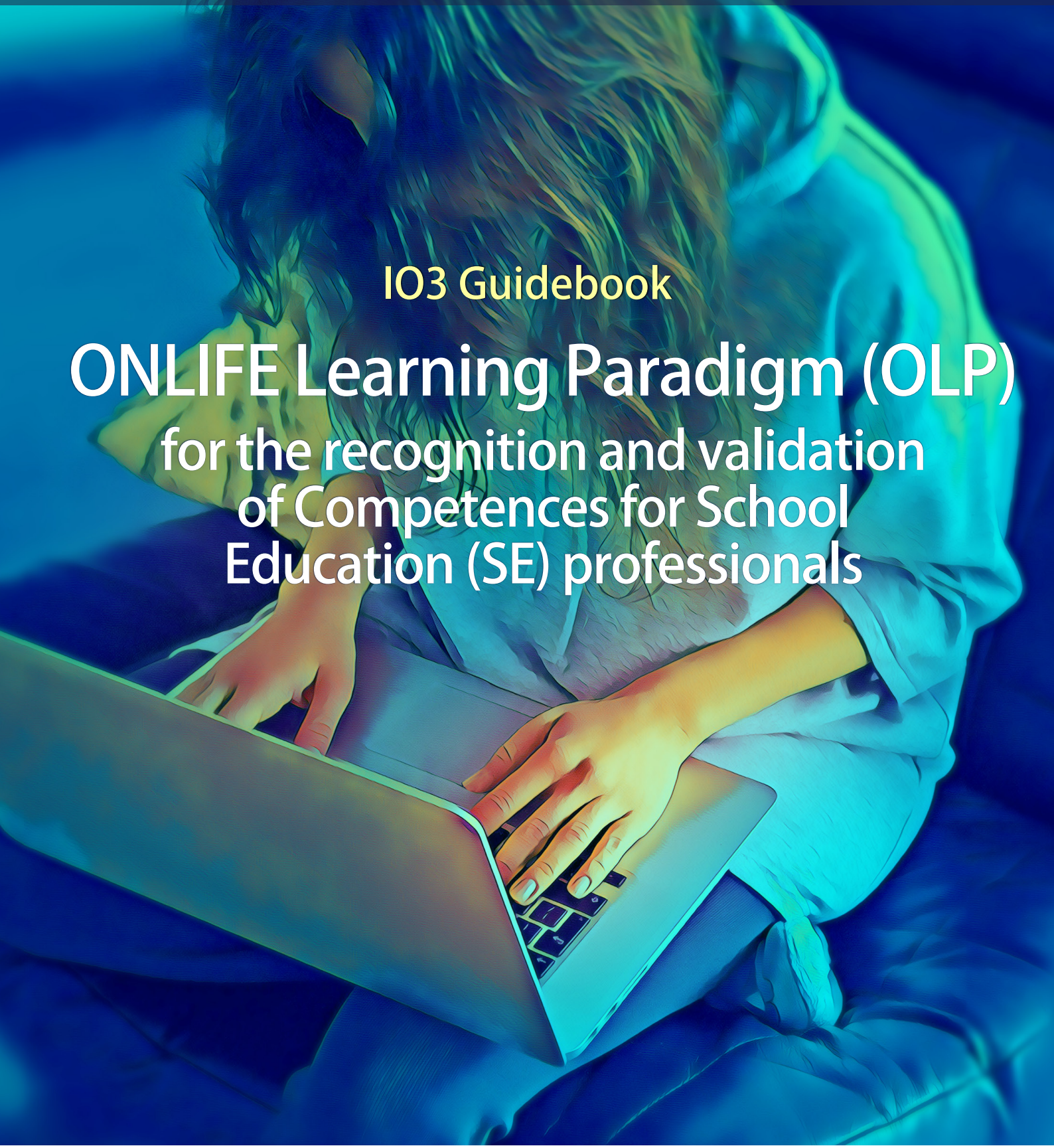
ONLIFE: Empower hybrid Competences for Onlife Adaptable Teaching in School Education in times of pandemic



IO3 Guidebook

ONLIFE Learning Paradigm (OLP)

for the recognition and validation of Competences for School Education (SE) professionals

ISBN 978-83-8084-942-6

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

"Empower hybrid Competences for Onlife Adaptable Teaching in School Education in times of pandemic"

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Executive Summary (EN)

The ONLIFE consortium, building upon the research conducted during Output 1 devised eight modules aimed at enhancing the digital competencies and skills of online teachers, empowering them to effectively utilise digital technologies for online and blended teaching in school education. After testing and refining the modules with both practitioners and teacher educators, as well as assessing the potential competencies in the MOODLE learning environment, the subsequent phase involved constructing a competence model to uphold the ONLIFE learning paradigm. To accomplish this, an examination of the proposed modules was carried out to identify the shared competencies, which were then categorised into these areas. Each competence was defined by grouping them based on a common set of attributes such as Knowledge, Skills (abilities), and Dispositions (attitudes). Finally, national experts were consulted to further refine the competencies and help create a conclusive proposal for a competence framework to uphold the ONLIFE Learning Paradigm. A set of policy recommendations at national level proposed by experts was also an outcome of the consultation process. Linked to the ONLIFE competence model, the project developed a self-assessment tool, which should help the school community stakeholders to diagnose their hybrid competencies for ONLIFE Adaptable Teaching in School Education.

The document consists of 6 core chapters:

1. **Elaboration of the Onlife Learning Paradigm Model**.
   Initial proposal of the dimensions/competence areas to be assessed on the basis of the OLP

2. **Expert evaluation of the framework of competencies**
   Each partner organised a consultation process with experts in the field of QA in SE. The goal is to present the OLP model and receive feedback both in the competence model proposed and, in the teachers', self-assessment tool.

3. **Policy recommendations**
   Policy recommendations suggested at a national level during the expert evaluation

4. **Self-evaluation tool for assessing competencies.**
   The building of a diagnostic instrument to measure the level of OLP competencies of the school community

5. **Final competence framework for supporting the ONLIFE Learning Paradigm.**
   The competence framework validated and improved by international experts, results in a final version.

6. **Conclusions**
   Final conclusions on the competence framework model for the OLP

Résumé (FR)

Le consortium ONLIFE, s'appuyant sur les recherches menées au cours du résultat 1, a conçu huit modules visant à améliorer les compétences et aptitudes numériques des enseignants en ligne, leur permettant d'utiliser efficacement les technologies numériques pour l'enseignement en ligne et mixte dans l'enseignement scolaire. Après avoir testé et affiné les modules avec les praticiens et les formateurs d'enseignants, ainsi que l'évaluation des compétences potentielles dans l'environnement d'apprentissage MOODLE, la phase suivante a consisté à construire un modèle de compétences pour maintenir le paradigme d'apprentissage ONLIFE. Pour ce faire, un examen des modules proposés a été effectué afin d'identifier les compétences partagées, qui ont ensuite été classées dans ces domaines. Chaque compétence a été définie en les regroupant en fonction d'un ensemble commun d'attributs tels que les connaissances, les compétences (capacités) et les dispositions (attitudes). Enfin, des experts nationaux ont été consultés pour affiner davantage les compétences et aider à créer une proposition concluante de cadre de compétences pour soutenir le paradigme d'apprentissage ONLIFE. Un ensemble de recommandations politiques au niveau national proposé par des experts a également été le résultat du processus de consultation. Lié au modèle de compétences ONLIFE, le projet a développé un outil d'auto-évaluation, qui devrait aider les acteurs de la communauté scolaire à diagnostiquer leurs compétences hybrides pour ONLIFE « Enseignement adaptable dans l'enseignement scolaire ».

Le document se compose de six chapitres principaux:

1. **Élaboration du modèle du paradigme de l'apprentissage tout au long de la vie.**
   Proposition initiale des dimensions/domaines de compétence à évaluer sur la base du OLP.

2. **Évaluation par des experts du cadre de compétences**
   Chaque partenaire a organisé un processus de consultation avec des experts dans le domaine de l'AQ en SE. L'objectif est de présenter le modèle OLP et de recevoir un retour d'information à la fois sur le modèle de compétences proposé et sur l'outil d'auto-évaluation des enseignants.

3. **Recommandations politiques**
   Recommandations politiques suggérées au niveau national lors de l'évaluation par des experts.

4. **Outil d'auto-évaluation des compétences.**
   L'élaboration d'un instrument de diagnostic pour mesurer le niveau de compétences OLP de la communauté scolaire.

5. **Cadre de compétences final pour soutenir le paradigme d'apprentissage ONLIFE.**
   Le cadre de compétences validé et amélioré par des experts internationaux, aboutit à une version finale.

6. **Conclusions**
   Conclusions finales sur le modèle de cadre de compétences pour l'OLP

Resumen Ejecutivo (ES)

El consorcio ONLIFE, basándose en la investigación llevada a cabo en el proyecto, ha diseñado ocho módulos destinados a mejorar las competencias y habilidades digitales del profesorado en contextos de educación híbrida, preparándoles para utilizar eficazmente las tecnologías digitales para la enseñanza en línea y mixta en los centros educativos. Después de probar y perfeccionar los módulos con profesionales y formadores de profesorado, así como de evaluar las competencias potenciales en el entorno de aprendizaje MOODLE, la siguiente fase consistió en construir un modelo de competencias que soporte el paradigma de aprendizaje ONLIFE. Para ello, se llevó a cabo un examen de los módulos propuestos, identificando las competencias compartidas, que luego se clasificaron en diferentes áreas. Cada competencia se definió según el conocido modelo de atributos tales como conocimientos, habilidades (capacidades) y disposiciones (actitudes). Por último, se consultó a expertos en los países participantes para perfeccionar las competencias y ayudar a crear una propuesta concluyente que diera entidad al paradigma de aprendizaje ONLIFE. Otro resultado del proceso de consulta ha sido un conjunto de recomendaciones políticas a escala nacional propuestas y discutidas por los expertos. Vinculado al modelo de competencias ONLIFE, el proyecto ha desarrollado una herramienta de autoevaluación, que podrá ayudar a las partes interesadas de la comunidad educativa a diagnosticar sus competencias híbridas para la Enseñanza Adaptable ONLIFE.

El documento consta de 6 capítulos principales:

1. **Elaboración del Modelo del Paradigma de Aprendizaje ONLIFE (OLP)**
   Propuesta inicial de las dimensiones/áreas de competencia a evaluar en base al OLP.

2. **Evaluación por expertos del marco de competencias**
   Cada socio organizó un proceso de consulta con expertos nacionales en el ámbito de la garantía de calidad en la educación escolar. El objetivo fue presentar el modelo OLP y recoger sugerencias de mejora, tanto en el modelo de competencias propuesto como en la herramienta de autoevaluación de los profesores.

3. **Recomendaciones sobre políticas educativas.**
   Recomendaciones políticas propuestas a nivel nacional en la consulta de evaluación de expertos para afrontar situaciones complejas en el sistema educativo

4. **Herramienta de autoevaluación de competencias.**
   Construcción de un instrumento de diagnóstico para medir el nivel de competencias OLP en los centros educativos

5. **Marco final de competencias para apoyar el paradigma de aprendizaje ONLIFE.**
   El marco de competencias validado y mejorado por expertos internacionales

6. **Conclusiones**
   Conclusiones sobre el modelo de marco de competencias para el OLP

Περίληψη των σημαντικότερων σημείων (GR)

Η κοινοπραξία ONLIFE, βασιζόμενη στην έρευνα που διεξήχθη κατά τη διάρκεια του αποτελέσματος 1, σχεδίασε οκτώ ενότητες μαθημάτων με στόχο την ενίσχυση των ψηφιακών ικανοτήτων και δεξιοτήτων των εκπαιδευτικών που διδάσκουν διαδικτυακά, δίνοντάς τους τη δυνατότητα να χρησιμοποιούν αποτελεσματικά τις ψηφιακές τεχνολογίες για τη διαδικτυακή και μικτή διδασκαλία στη σχολική εκπαίδευση. Μετά τη δοκιμή και τις βελτιώσεις των ενοτήτων τόσο από επαγγελματίες όσο και από εκπαιδευτές εκπαιδευτικών, καθώς και την αξιολόγηση των αναπτυσσόμενων ικανοτήτων στο μαθησιακό περιβάλλον MOODLE, η επόμενη φάση περιλάμβανε τη δημιουργία ενός μοντέλου ικανοτήτων για την υποστήριξη του προτύπου μάθησης ONLIFE. Για να επιτευχθεί αυτό, εξετάστηκαν οι προτεινόμενες ενότητες για να εντοπιστούν οι κοινές ικανότητες, οι οποίες στη συνέχεια κατηγοριοποιήθηκαν σε αυτούς τους τομείς. Κάθε ικανότητα καθορίστηκε με την ομαδοποίησή της, με βάση ένα κοινό σύνολο χαρακτηριστικών, όπως οι Γνώσεις, οι Δεξιότητες και οι Διαθέσεις (στάσεις). Τέλος, ζητήθηκε η γνώμη εθνικών εμπειρογνωμόνων για την περαιτέρω εξειδίκευση των ικανοτήτων και τη δημιουργία μιας τελικής πρότασης πλαισίου ικανοτήτων που θα υποστηρίζει το πρότυπο μάθησης ONLIFE. Ένα σύνολο συστάσεων πολιτικής, σε εθνικό επίπεδο, που προτάθηκαν από εμπειρογνώμονες ήταν επίσης αποτέλεσμα της διαδικασίας διαβούλευσης. Συνδεδεμένο με το μοντέλο ικανοτήτων ONLIFE, το έργο ανέπτυξε ένα εργαλείο αυτοαξιολόγησης, το οποίο αναμένεται να βοηθήσει τους ενδιαφερόμενους της σχολικής κοινότητας να διαγνώσουν τις υβριδικές τους ικανότητες για την Προσαρμοσμένη Διδασκαλία ONLIFE στη Σχολική Εκπαίδευση.

Η ενότητα αποτελείται από 6 βασικά κεφάλαια:

1. **Επεξεργασία του μοντέλου πρότυπου μάθησης Onlife (ΠΜΟ)**.
   Αρχική πρόταση των διαστάσεων/τομέων ικανοτήτων προς αξιολόγηση με βάση το ΠΜΟ

2. **Αξιολόγηση του πλαισίου ικανοτήτων από εμπειρογνώμονες**
   Κάθε εταίρος οργάνωσε μια διαδικασία διαβούλευσης με εμπειρογνώμονες στον τομέα της διασφάλισης ποιότητας στη σχολική εκπαίδευση. Ο στόχος είναι να παρουσιαστεί το μοντέλο ΠΜΟ και να ληφθεί ανατροφοδότηση τόσο για το προτεινόμενο μοντέλο ικανοτήτων όσο και για το εργαλείο αυτοαξιολόγησης των εκπαιδευτικών.

3. **Συστάσεις πολιτικής**
   Συστάσεις πολιτικής που προτάθηκαν, σε εθνικό επίπεδο, κατά τη διάρκεια της αξιολόγησης από εμπειρογνώμονες

4. **Εργαλείο αυτοαξιολόγησης για την αξιολόγηση των ικανοτήτων**
   Η δημιουργία ενός διαγνωστικού εργαλείου για τη μέτρηση του επιπέδου ικανοτήτων ΠΜΟ στη σχολική κοινότητα.

5. **Τελικό πλαίσιο ικανοτήτων για την υποστήριξη του μαθησιακού προτύπου ONLIFE.**
   Το πλαίσιο ικανοτήτων επικυρώθηκε και βελτιώθηκε από διεθνείς εμπειρογνώμονες και κατέληξε σε μια τελική έκδοση.

6. **Συμπεράσματα**
   Τελικά συμπεράσματα σχετικά με το μοντέλο πλαισίου ικανοτήτων για το ΠΜΟ

1. Elaboration of the ONLIFE Learning Paradigm

The University of Barcelona proposed an initial competency framework. All partners participated in the validation process, firstly by adapting the model after providing suggestions for improvement and secondly by organising a validation process with national experts. The reports of the focus groups are included in the annexes.

1.1 The process of validation

The first step was to compile all the competencies present in the proposed final modules. It was observed that, logically, many of them coincided, since the content of the modules should reinforce the competencies of the teachers according to the different contents and areas of knowledge, so they are the basis of the new hybrid teaching and learning practices.

Based on an exhaustive analysis of each ONLIFE module, a total of 42 competencies were compiled and explicitly mentioned. As for pedagogies, a total of 20 approaches were mentioned. It must be said that those that appeared most frequently were the most important for the model. For example, the competencies of adaptability, communication, collaborative work, co-creation and digital competencies were the most present throughout the modules.

A process of comparing the competencies with the Digital Competencies Framework for Educators (DigCompEdu), as well as with the competency framework previously developed by the partnership in the L-CLOUD project (ERASMUS +, 2018-1-CY01-KA201-046859). shed light and helped consolidate the initial ONLIFE competency model. Certainly, those models, especially the latter, were very close to the needs that teachers and experts identified as necessary during the COVID-19 and beyond.

The next step was to organise the competencies within broader domains in order to map the set of competencies for better understanding, so that subsequent refinement and extension processes would be easier to understand and work with. In table 1 below, we can see the competencies as they were stated in the modules:

Module 1: Introducing ONLIFE	Ability to establish an understanding of the pervasiveness of ICT in everyday life Ability to compare examples of ONLIFE in different aspects of everyday life Recognise the impact of ONLIFE in education
Module 2: Online training for learning with online learning environments	Adaptability skills Selecting, creating, and modifying digital resources Managing, protecting, and sharing digital resources Collaborative learning *All according to (DigiCompEdu)*

Module 3: Digital Skills for online teaching	Collaborating through digital technologies Creatively using digital technologies Creating educational digital content Distributing learning resources in various forms to make them accessible to all students
Module 4: Cooperating, sharing resources and co-teaching	Adaptability skills Collaborative learning skills Cooperation disposition Co-creation of resources Management, protection, and sharing digital resources
Module 5: Online teaching strategies and relevant practices to enable student learning	Adapt current teaching strategies to hybrid learning environments selecting the most appropriate digital tools Ability to use cloud solutions to educational problems and to managing education
Module 6: Effective communication and collaboration using technology	Communication skills Planning and Organizing Flexibility and adaptability Cooperation skills Co-creation skills Critical thinking (for the do's and don'ts in online and blended communications) etc.
Module 7: Adaptive teachers for disruptive learning scenarios: looking for digital solutions	Ability to establish a shared vision on confronting disruptive situations in the educational organisations Ability to creatively use digital solutions in different educational contexts Ability to critically assess your own practice and develop their understanding of effective and sustainable interventions Disposition to motivating, encouraging, trusting, and valuing colleagues to explore digital approaches for both disruptive situations Commitment to foster inclusion, cross-cultural skills, and equal opportunity in today's complex education
	Skills on using, developing, creating and managing hybrid solutions for adaptive education, including applications, devices, and networks for improving the existing operations
Module 8: Teachers as future multipliers	Communication skills Planning and organising abilities Flexibility and adaptability dispositions Leadership skills Self-management skills Problem solving skills Digital literacy knowledge

	Resilience/self confidence dispositions Decision making skills Cooperation skills Co-creation skills Critical thinking disposition

Table 1: Stated competences in modules

In addition, given the importance of the teaching methodologies required for teacher training in the eight proposed modules, an analysis of the indicated methodologies was carried out in order to find commonalities, also offering ideas on which learning approaches are the most necessary to improve the proposed competencies. In Table 2 we find those that were mentioned.

Module 2	Presentation of information and open discussion
	Problem-based Learning (PBL) through their engagement in hands-on team activity
Module 3	Creating learning materials
	Creating quizzes/questionnaires
Module 4	Presentation of information and forum open discussion
	Problem-based Learning (PBL) through their engagement in hands-on team project activity
Module 5	Presentation of information and open discussion (if held in the synchronous manner).
	Studying presented material and critically analysing own beliefs and judgements.
	Integrating new thought patterns and educational concepts in creating own courses.
Module 6	Online/blended teaching approaches
	Presentation of information and open discussion
	Problem-based Learning (PBL) through their engagement in hands-on team project activity
	Sharing best practices
	Getting out of the participants' comfort zone
Module 7	Presentation of information and open discussion
	Analysis of good practices
	Project-based Learning through their engagement in hands-on project activity
Module 8	Online poll voting
	Answering short quiz questions as part of the evaluation of the accomplishment of the module's learning objectives

Table 2: Stated teaching methodologies in ONLIFE modules

1.2 Synthesis of competencies

The next step was to synthesise the results by taking into account the number of occurrences in the modules, so that we could determine which categories were most relevant both quantitatively and qualitatively. By performing this exercise, several categories emerged that could make the competency areas that would ultimately underpin the ONLIFE LPT model more comprehensive. These categories were proposed below:

A. LEADERSHIP

Related to establishing a shared vision on how to deal with disruptive situations in educational organisations, being able to negotiate with educational authorities and lead responses.

B. PEDAGOGY

Related to the use of innovative teaching and learning methodologies adapted to hybrid learning situations (digital/online teaching methodologies).

C. TECHNOLOGY

Related to the selection of the most appropriate digital learning and communication tools for use in learning environments and institutions.

D. METACOGNITION

Related to the search for and organisation of one's own learning, individually or in groups, according to one's own emerging needs, and knowledge of innovative methods and opportunities.

The four categories made it possible to accommodate the synthesis of competencies that emerged in the modules. These categories, on which the ONLIFE model is based, will be used to measure the readiness of stakeholders (teachers, principals, practitioners, trainees, etc.) and of institutions as a whole to assess their readiness to innovate in order to face difficult times in the educational world, such as during the pandemics.

Next, in order to build the competency framework, it is important to establish the level of competency acquisition among stakeholders. The proposed levels were as follows:

Level A: Changemaker
Leads change by linking stakeholders to plan a response to the situation.
Level B: Active
Team member who proposes solutions to disruptive educational situations.
Level C: Adaptive
Adapts plans to their specific situation.
Level D: Adoptive
Able to apply already developed methods and tools in the classroom.

Level E: Passive
Knows the problems and tools and waits to be told what to do.
Level F: Unconscious
Unaware of the problems posed by new situations and the actions to be taken.

These levels are similar (and to some extent, compatible) with those used in different EU initiatives such as DigiCompEdu (mentioned above) and SELFIE[1]

Finally, an initial competency framework model (OLP, Onlife Learning Paradigm) was constructed according to the proposed categories and levels.

COMPETENCE FRAMEWORK FOR THE OLP	**Key areas of the OLP we promote, according to the following competencies**	
(Codes: K - Knowledge; S - Skills; D - Dispositions)		
CATEGORIES	**COMPETENCIES**	**STATEMENTS ABOUT PERFORMANCE**
LEADERSHIP (L)		
Related to establishing a shared vision on confronting disruptive situations in the educational organisations, being able to negotiate with the educational authorities and lead responses	Ability to establish an understanding in the professional community of the pervasiveness of digital solutions in everyday life and in teaching profession (S)	Collaborating and/or actively coordinating initiatives within your peers/colleagues at the school
	Disposition to motivating, encouraging, trusting and valuing colleagues to explore digital approaches for both disruptive and regular situations (D)	Setting up plans and team work for studying alternative solutions when a new problem arises
	Planning, organisation, and decision-making skills (S)	Organising a team of people in order to give a concrete response to new practical problems
PEDAGOGY (P)		
Related to using innovative teaching and learning methodologies adapted to hybrid learning situations (digital/online teaching methodologies)	Knowledge about teaching strategies, Problem-solving, PBL, Gamification, flipped classroom, adapted to hybrid learning (K)	Know how a specific didactic approach can be introduced in a lesson plan for both f2fand online situations
	Ability to integrate digital communication with students/teachers/parents (S)	Know how to communicate using online channels with the educational community in hybrid situations
	Abilities to look at problems and find solutions using co-creation approaches (S)	Identify together with different stakeholders new educational problems and engage in a co-creation exercise to look for the best solution
	Ability to compare examples of ONLIFE in different aspects of everyday life (S)	Using and/or the examples of ONLIFE in different learning situations

[1]SELFIE is a free, customizable and easy-to-use tool to help schools assess where they are in terms of learning in the digital age (https://ec.europa.eu/education/schools-go-digital)

	Commitment to foster inclusion, cross-cultural skills and equal opportunity in today's complex education (D)	Positive attitude towards students that need specific support, by adapting both contents and tools to their specific needs and socioeconomic environment
TECHNOLOGY (T)		
Related to the selection, of the most appropriate digital learning and communication tools for being used in learning settings and in institutions	Creation/adaptation/distribution of learning resources to digital formats (S)	Mastering digital tools to transform analog learning materials and resources to hybrid learning environments
	Ability to organise online/hybrid learning environments using adequate digital tools (S)	Know the different LMS and school management systems most convenient for the educational institution
	Ability to managing, protecting and sharing educational resources in hybrid environments (S)	Take care of copyright issues of digital resources, making the educational community aware of good practices in Internet
	Knowledge of different cloud education solutions to schoolwork (K)	Analyse different cloud solutions for managing both interactive teaching and learning platforms (LMS) and school communication and management systems (SMS)
METACOGNITION (M)		
Related to the search for and organisation of one's own learning, either individually or in groups, according to one's own and emerging needs, and being aware of innovative methods and opportunities adapted to teaching and learning.	Disposition to critical thinking on the promises of digital technologies for the transformation of schools (D)	Analyse and critically appraise for the do's and don'ts in hybrid learning environments and digital communication
	Promote resilience and self-confidence in yourself and in the organisation (D)	Actively participating in the search for solutions on disruptive situations in my organisation
	Disposition to lifelong learning	Open to learn what he or she needs at a particular moment from a perspective of continuous competence improvement according to the lifelong learning paradigm (D)
	To be open to fast technological change, and qualify as problem solver (D)	Be aware of how societal changes and technologies influence education, and act accordingly as a professional educator
	Willingness to participate in a learning community at the school level or at the national/international level (D)	Be aware of the international dimension of the teacher's profession, and be willing to collaborate with other colleagues

Competence level pursuing readiness to innovation	
Level A: Changemaker	Lead changes linking stakeholders to plan a response to the situation
Level B: Active	Member of a team proposing solutions for disruptive situations
Level C: Adapt	Adapt the plans to his/her specific situation
Level D: Adopt	Able to implement readymade methods and tools in the classroom
Level E: Passive	Know the problems and tools, waiting to hear about what to do
Level F: Unaware	Unaware of the problems caused by new situations, and the actions to be taken

Table 3: ONLIFE model initial framework

2. Expert evaluation of the competency framework

The initial OLP competency framework was proposed for review by experts in the various partner countries to discuss each of the areas. The peer review was carried out with the participation of at least 10 experts per country.

The selected experts were formally invited to a local assessment focus group organised by the ONLIFE teams. In some cases, the workshops included online sessions and f2f seminars, which made it possible to reach a larger number of geographically distributed experts.

2.1 Procedure

The process followed a focus group protocol by providing the initial competence framework, how was it built, and discussing different areas of the framework, introducing each one: Leadership, Pedagogy, Technology and metacognition:

- The following competencies have been identified by the project consortium. Do you find these specific competencies important and relevant?
- Do you feel that some of the competencies overlap, and they could be better expressed as one?
- Can you think of other, useful competencies for measuring readiness to adapt in pandemic situations?
- On a scale of 1-10 rate the sufficiency of these competencies.

In the end experts were asked to provide policy recommendations, with potential policy changes the ONLIFE consortium should recommend.

Finally, the ONLIFE teams submitted a national report (see ANNEX National evaluation reports) to be processed jointly in order to provide recommendations and possible changes to the original competence framework.

2.2 Results of the focus group consultation exercise

Overall, focus group participants from all countries emphasised the importance of equipping teachers with the skills and knowledge to effectively deliver instruction in a virtual learning environment. By implementing the ONLIFE competency framework and recommendations, schools and educators will be better equipped for the transition to hybrid learning in the event of a crisis, but also in normal situations, and will provide high quality instruction to their students.

2.2.1. Relevance of the proposed competencies

The model presented to the experts cannot be considered exhaustive, nor definitive, but it is a tool that supports what ONLIFE considers necessary to address disruptions with a certain degree of success. Educational mindsets and traditions may differ and, secondly, problems and priorities may change over time depending on the circumstances of national education systems. That said, the proposed framework is subject to interpretation and evolution in light of new developments and conditions. Against this background, we cannot claim that the different competencies are mutually exclusive, since in education the same ideas can be interpreted from different categories, such as those proposed in the model.

In terms of **Leadership**, some partners point out that it should be based on some kind of authority (otherwise might be wasted or simply not given), then needs previous formal training. Some experts also found that "Disposition to motivating, encouraging, trusting and valuing colleagues to explore digital approaches for both disruptive and regular situations", is too complex and concentrated; it should be better defined.

While in the area of **Pedagogy**, a partner found the disposition to foster inclusion and cross-cultural skills not particularly important, others found it relevant. This might be due to the differences in countries in terms of the variety of students' profiles.

Technology seems to claim a more complete consensus among the experts. However, metacognition, starting with the understanding of this concept raises some doubts, for instance, some of the competencies can move to the technology area.

With respect to **Metacognition**, experts claim more clarification in terms of the competences placed. A certain discussion came with respect to the use of the term of metacognition versus the term **self-regulation**, according to the set of competencies defined. It was not clear which one encompasses better the framework proposed. In the end, a decision was made to introduce the idea of **self-regulation** within the model as part of the description of the metacognition area, introducing a new wording in it. Some minor comments were related to classifying one competence as knowledge instead of skill. Finally, although "emotional intelligence" as a transversal skill is embedded in all the four competencies listed, it has been decided to include it in this area.

2.2.2 Overlapping Competencies: Can they be expressed as one?

Having said that, in general experts came up to the conclusion that most competences, as were stated in the OLP, were quite coherent, and little overlapping can be appraised in the definitions and examples. However, some overlapping o similarities were pointed out for instance in competences related to leadership and metacognition. This will be corrected in the final version.

2.2.3 Other Useful Competencies to be included.

With regards to **pedagogy**, the participants recommended developing competencies for identifying and adopting different approaches for online teaching students of different ages and abilities. This will help teachers tailor their instruction to the specific needs of their students and provide a more effective learning experience.

In terms of **technology**, the participants recommended developing competencies for adapting materials to meet the needs of students with diverse abilities and acquiring technological proficiency.

Some of the experts claim that although the proposed competencies discriminate sufficiently, addressing awareness raising, motivating action/exploration and coordination, a component of **knowledge about Leadership (K)** is missing, tackling leadership in conflicting situations (situation analysis, risk studies, intervention, methodological alternatives, etc.), since understanding why leadership is needed and how it works in practice doesn't imply that all teachers will become leaders, but participate and collaborate with the school leadership in order to confront the problems efficiently.

Also, participants recommended developing competencies in **metacognition and self-regulation**. This includes considering the moral and philosophical aspects of hybrid teaching, including its potential benefits and drawbacks for all, specially for those who are at risk of exclusion in these stressful situations.

2.2.4 Sufficiency of Competencies: Rating on a Scale of 1-10

In general, the results show that the competencies of Pedagogy and Technology were rated higher (9 overall) than Leadership and Metacognition (which were rated 8 overall). This suggests that the focus group participants believe that pedagogy and technology are essential competencies for teacher readiness and successful transition to digital learning, while leadership and metacognition are also important but to a slightly extent.

Based on this result, we decided to introduce the areas in this order in the framework, and assuming that self-regulation can better describe the metacognitive concepts proposed, a decision is made naming the metacognition area for self-regulation (**Pedagogy, Technology, Self-regulation, Leadership**), changing the formality of the structure, and less the approach.

3. Policy Recommendations

A number of policy recommendations emerged from the various focus groups. Although, by their nature, these recommendations come from different environments and national education systems, we believe that there are common aspects from which we can all learn in Europe. Indeed, as noted in Outcome 1, based on the national studies, we find that education systems have faced common problems.

In **Cyprus (EACG**), the focus group participants discussed several policy recommendations to help school teachers effectively transition to online teaching in the event of a crisis. They acknowledged the importance of preparing teachers for this transition and suggested several key areas for improvement.

First, they recommended encouraging research to study the specific competencies needed for online teaching for different age groups. This will help in developing a more targeted approach for teacher training and professional development. The participants also recommended identifying and analysing effective platforms and software to help schools and teachers make informed decisions about the technology they use.

Additionally, the participants emphasised the importance of providing ongoing professional development opportunities for teachers to develop their competencies in online teaching. They encouraged collaboration between educators, administrators, and technology experts to develop and implement best practices for online teaching.
Finally, the participants acknowledged and incorporated the role of metacognition in online teaching and suggested training teachers to help students develop their own metacognitive skills. By doing so, students will be better equipped to learn and succeed in a virtual learning environment.

Overall, the focus group participants agreed that by implementing these policy recommendations, schools and educators will be better equipped to transition to online teaching in the event of a crisis and be able to effectively deliver high-quality instruction in a virtual learning environment.

Additionally, in **Spain (University of Barcelona),** a long list of recommendations was proposed and discussed. Above all, policies should focus on two key areas: a) expanding the importance of renewing teacher training, and b) ensuring the availability of the necessary technological resources:

- In schools, establish stable channels (formal and informal) for both individual and collective relationships between students, between students and teachers, and between teachers.
- ICT and education specialists in schools, management (measures to liberalise school hours to organise teachers' work) and technological infrastructures (greater accessibility to digital resources at all levels and in all subjects, with platforms more accessible to all).

- Promote joint institutional contingency plans organised by the educational authorities. Individual actions end up being diluted and do not really reach teachers efficiently.
- More autonomy for schools, professionalisation of management teams.
- Radical change in initial teacher training. One of the greatest difficulties of the change we are facing is learning to teach in a different way from the one we learned. This can be alleviated from now on, if the new generations of teachers learn with new methodologies, strategies, tools and competencies.
- Educational policies should establish continuous monitoring systems to update teachers' knowledge, as is done in other countries, in order to remain current. As long as no one feels that change is necessary in a systematic and holistic sense, everything remains good intentions.
- Guaranteeing access to information and online communication, that is, ensuring sufficient and connected devices. Then, develop training to increase teacher digital competence and the exchange of good practices.

In **Italy, Liceo Statale "E. Majorana" Rho**, participants highlight the gap between the formal aspects required by school organisations in relation to assessment (so far, paper-based tests are still highly recommended because they can be easily stored and made available upon request) and the willingness of teachers who wish to use technology in their practices.

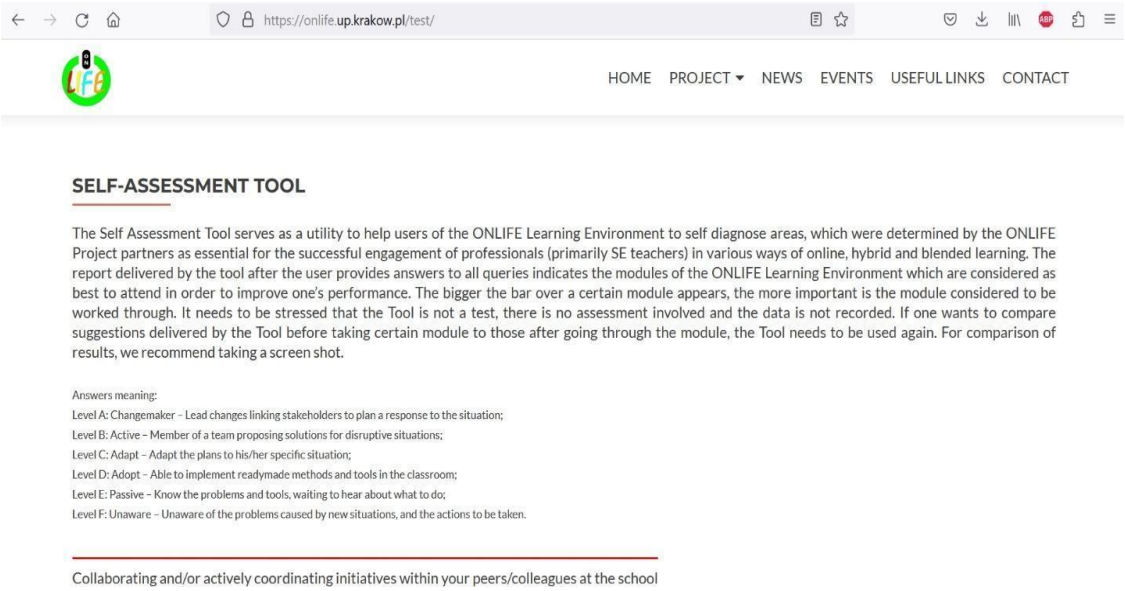
In the **European Digital Learning Network, DLEARN** (of a European nature) the focus group participants discussed which policy recommendations could help schoolteachers effectively transition to online teaching in the event of an emergency. All agreed that most teachers in schools are not digitally ready in terms of skills and competences needed in case of hybrid or/and online teaching and that is therefore essential to prepare them in such respect. The participants arrived at the conclusion that a continuous 'train of the trainers' is needed and advised in order to allow a smooth transition to an online environment.

In **Romania,** at **LICEUL TEORETIC "TUDOR ARGHEZI"**, Teachers' readiness to use technology in their practices and apply the ONLIFE Learning Paradigm depends on how willing policy makers are to invest in education and create opportunities for teachers to attend ICT courses.

In **Poland,** at the **Pedagogical University of Krakow**, they recommend assigning a teacher, or a group of them (depending on the size of a school), as an expert in hybrid, online teaching and make sure his competencies are up to date. This teacher / group of teachers should be ready in case emergencies pop up to take lead in promoting their competences to fellow teachers. Not all teachers need to be trained in adaptable teaching, but they should be aware of its existence and reach for help and resources when needed.

4. Self-evaluation tool for assessing competencies

The ONLIFE consortium developed a self-assessment tool https://onlife.up.krakow.pl/test/, which should help the broadly understood school community stakeholders to diagnose their hybrid competencies for ONLIFE Adaptable Teaching in School Education. The tool is based on the ONLIFE Learning Paradigm and is available on the project-dedicated Moodle platform: https://projectsmoodle.up.krakow.pl/



The tool leads its user through a series of questions, where the user is prompted to self assess own competence level on the scale from A (changemaker) to F (unaware). Based on results of this anonymous process, which outcome data is not stored in any way in order to protect users' privacy and comfort, the tool fully automatically provides recommendations for taking certain modules of the main course. An example of a test tool is presented in the picture below.

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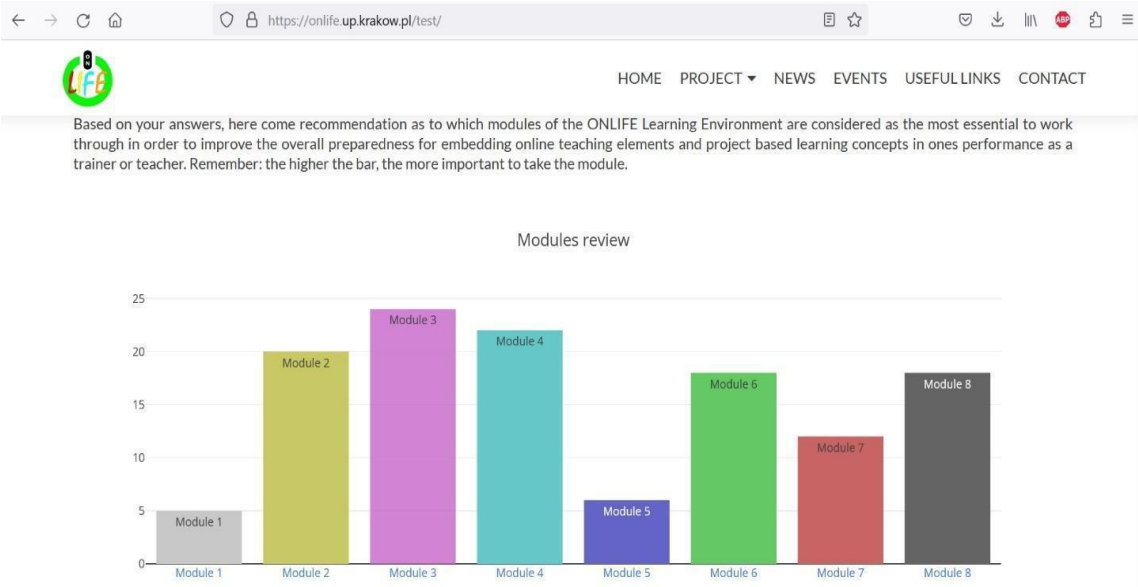

Its outcome can be interpreted as follows. Based on the answers given in the test, Module 3 of the course is recommended as the most necessary module to complete in order to improve one's competences. By simply placing the cursor on the bar representing this module and clicking on it, the user is automatically taken to the relevant part of the course (first-time visitors will have to go through a simple and easy registration process). Once this part is completed, the user can go back to the results and follow another module. In the situation presented in the figure above this would be Module 4 or Module 2. On the other hand, the subjects covered in Modules 1 and 5 are clearly mastered by the user, so there is no need to go to these modules.

5. Final competence framework for supporting the ONLIFE Learning Paradigm

With the help of the experts (more than seventy in total), the model has been validated and improved, so we can consider it a good tool for teacher training and for the development of new educational resources and learning methodologies. By collecting all the suggestions proposed, ONLIFE arrives at a competency framework that can be considered as the foundations of the architecture of the **Onlife Learning Paradigm**, supporting the proposed teacher training program. This program consists of eight learning modules on a Moodle platform. The platform includes the self-assessment tools mentioned above. The training contents support the OLP, and ensure that, upon completion of the training, teachers will acquire or improve their competency levels as proposed in this document. Then, the proposed competence model is as follows:

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COMPETENCE FRAMEWORK FOR THE OLP	Key areas of the OLP promoted , according to the following competencies	
	(Codes: K - Knowledge; S - Skills; D - Dispositions)	
CATEGORIES	**COMPETENCIES**	**STATEMENTS ABOUT PERFORMANCE**
1. PEDAGOGY (P)		
Related to using appropriate teaching and learning methodologies adapted to hybrid learning situations, (digital/online teaching), and to all students (different ages and abilities)	Knowledge about teaching strategies as problem-solving, PBL, gamification, or flipped classroom (among other), adapted to hybrid learning (K)	Know how a specific didactic approach can be introduced in a lesson plan for both f2f and online situations
	Ability to integrate digital communication with students/teachers/parents (S)	Know how to communicate using online channels with the educational community in hybrid situations
	Abilities to look at problems and find solutions using co-creation approaches (S)	Identify, together with different stakeholders, new educational problems and participate with others (even outside the centre) in the search for the best solution.
	Commitment to foster inclusion, and equal opportunity in today's complex education by identifying and adopting different approaches for teaching students of different ages and levels (D)	Helps students who need support, adapting both content and tools to their specific needs, ages, level, and socio-economic environment.
2. TECHNOLOGY (T)		
Related to the selection, of the most appropriate digital learning and communication tools for being used with students in different learning settings and institutions	Creation/adaptation/distribution of learning resources to digital formats (S)	Mastering digital tools to transform analog learning materials and resources to hybrid learning environments
	Skills for adapting materials to meet the needs of students with diverse abilities and acquiring technological proficiency (S)	Adapt his/her teaching on how to deal with differences among students for them to improve their digital skills in learning situations
	Ability to managing, protecting, and sharing educational resources in hybrid environments (S)	Take care of copyright issues of digital resources, making the educational community aware of good practices in Internet
	Knowledge of different cloud education solutions to schoolwork (K)	Analyse different cloud solutions for managing interactive learning in learning platforms (LMS), and communication in school management systems (SMS)
3. SELF-REGULATION (S)		
Related to the search for and organisation of one's own learning, individually or in groups, according to	Disposition to critical thinking on the promises of digital technologies for the transformation of schools (D)	Analyse and critically appraise for the do's and don'ts in hybrid learning environments and digital communication, considering also its moral and philosophical aspects

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one's own and the students' needs, being aware of new opportunities to be adaptive in teaching and learning.	Disposition on promoting resilience and self-confidence in yourself and in the organisation (D)	Actively participating in the search for solutions on disruptive or complex situations in my organisation
	Knowledge on emotional intelligence to support self-regulation and goal-setting in students in digital learning (K)	Including abilities that reinforce self-awareness, self-management, and social awareness, educators can help students to develop the ability to manage their emotions, set and achieve goals and make positive decisions in any stressful situation
	To be open to fast technological change, and qualify as problem solver (D)	Be aware of how societal changes and technologies influence education, and act accordingly as a professional educator
	Willingness to participate in a learning community at the school level or at the national/international level (D)	Be aware of the international dimension of the teacher's profession, and be willing to collaborate with other colleagues
LEADERSHIP (L)		
Related to establishing a shared vision on confronting disruptive situations in the educational organisations, being able to negotiate with the educational authorities and lead responses	Ability to establish an understanding in the professional community of the pervasiveness of digital solutions in everyday life and in teaching profession (S)	Collaborating and/or actively coordinating initiatives within your peers/colleagues at the school
	Disposition to motivating, encouraging, trusting, and valuing colleagues to explore digital approaches for both disruptive and regular situations (D)	Setting up plans and teamwork for studying alternative solutions when a new problem arises
	Knowledge about leadership approaches and techniques (K)	Knows how to deal with conflicting situations (situation analysis, risk studies, intervention, methodological alternatives, etc.) and exerts leadership based on prestige (*authoritas*).
	Planning, organisation, and decision-making skills (S)	Effectively organises teams in order to give a concrete joint response to new practical problems

Competence level pursuing…	**…readiness to innovation**
Level A: Changemaker	Lead changes linking stakeholders to plan a response to the situation
Level B: Active	Member of a team proposing solutions for disruptive situations
Level C: Adapt	Adapt the plans to his/her specific situation
Level D: Adopt	Able to implement readymade methods and tools in the classroom
Level E: Passive	Know the problems and tools, waiting to hear about what to do
Level F: Unaware	Unaware of the problems caused by new situations, and the actions to be taken

Table 4: Definitive competence framework

6. Conclusions (EN)

The competence framework supporting the ONLIFE Learning Paradigm (OLP) has been well received by both specialists and professionals. The validation process went according to expectations, showing satisfaction among most of the participants. With some differences among partners, the model shows consistency with the results of IO1 and IO2, and with the results of the consultation process.

The suggestions have been included in the model, as they all fit well into the model. Along with the changes proposed by the ONLIFE partnership, a new version of the OLP competence model has been developed as a synthesis of the experts' validation process. In addition, the diagnostic tool linked to the model can support the preparedness of schools to deal with disruptive situations in advance, within the framework of a hybrid education mediated by digital technologies.

The competence model includes four main areas: pedagogy, technology, self-regulation and leadership, with a total of seventeen competencies (four are knowledge, seven are skills and six are dispositions).

The OLP competence model is a step beyond the DigiCompEdu, SELFIE and L-CLOUD competency models (mentioned above), and can be considered a natural evolution of them, introducing those competencies that were identified during the pandemics. Beyond that, we believe this model is a starting point for cloud education, as it is notable that most of the education system in Europe has consolidated the practices and tools necessary for online learning or hybrid learning.

On the basis that it is difficult to foresee the future, we believe that the model can help teachers, principals, and schools as a whole to make a diagnosis in order, with the help of digital technologies, to be prepared for any disruptive or complex situation that may occur in the future of educational systems.

The model can also be used to update the contents and methods of teacher training programs, whether initial or continuing education.

6. Conclusion (FR)

Le cadre de compétences soutenant le paradigme d'apprentissage ONLIFE paradigme d'apprentissage (OLP) a été bien accueilli par les spécialistes et les professionnels. Le processus de validation s'est déroulé conformément aux attentes, démontrant la satisfaction de la plupart des participants. Avec quelques différences entre les partenaires, le modèle montre une cohérence avec les résultats de IO1 et IO2, et avec les résultats du processus de consultation des experts, dont les suggestions ont été bien prises en compte pour modifier le modèle initial, de sorte qu'un nouveau modèle définitif a été produit par consensus. De plus, l'outil de diagnostic lié au modèle devrait soutenir la préparation des écoles à faire face à des situations perturbatrices en amont, dans le cadre d'une éducation hybride médiatisée par les technologies numériques.

Le référentiel de compétences comprend quatre domaines principaux, par ordre d'importance, à savoir : la pédagogie, la technologie, l'autorégulation et le leadership, avec un total de dix-sept compétences (quatre sont classées en « savoirs », sept sont des « habiletés » et six sont des « dispositions »).

Le cadre de compétences qui sous-tend le paradigme d'apprentissage ONLIFE a été bien accueilli par les spécialistes et les praticiens européens. Le modèle montre une cohérence avec les travaux initiaux d'ONLIFE et avec les résultats du processus de consultation d'experts, dont les suggestions ont été bien prises en compte pour modifier le modèle initial, de sorte qu'un nouveau modèle définitif a été élaboré par consensus. Par ailleurs, l'outil de diagnostic lié au paradigme d'apprentissage ONLIFE doit accompagner la préparation des écoles à faire face en amont aux situations perturbatrices, dans le cadre d'une éducation hybride médiatisée par les technologies numériques.

Partant du principe qu'il est difficile de prévoir l'avenir, nous pensons que le modèle OLP peut aider les enseignants, les directeurs et les autres acteurs de l'éducation à poser un diagnostic pour se préparer à toute situation perturbatrice ou complexe pouvant survenir dans l'avenir des systèmes éducatifs. . Le modèle peut également être utilisé pour mettre à jour les contenus et les méthodes des programmes de formation des enseignants, qu'ils soient de formation initiale ou continue.

6. Conclusiones (ES)

El marco de competencias que sustenta el paradigma de aprendizaje ONLIFE (OLP) ha sido bien recibido tanto por especialistas como por profesionales de la enseñanza. El proceso de validación se desarrolló conforme a las expectativas, mostrando satisfacción la mayoría de los participantes. Con algunas diferencias entre los socios, el modelo muestra coherencia con los resultados de IO1 e IO2, y con los resultados del proceso de consulta a expertos, cuyas sugerencias fueron bien consideradas para modificar el modelo inicial, por lo que se ha elaborado por consenso uno nuevo y definitivo hasta el momento.

La herramienta de diagnóstico vinculada al modelo que ha sido creada, y se encuentra en el curso MOODLE diseñado, debería servir de apoyo a la preparación de los centros educativos para hacer frente con antelación a situaciones complejas tal como las hemos vivido, en el marco de una educación híbrida fuertemente mediada por tecnologías digitales.

El marco final de competencias incluye cuatro áreas principales, por orden de importancia, a saber: *pedagogía, tecnología, autorregulación y liderazgo*, con un total de diecisiete competencias (cuatro se clasifican como "conocimientos", siete son "habilidades" y seis son "disposiciones").

Partiendo de la base de que es difícil prever el futuro, creemos que el modelo OLP puede ayudar a profesores, directores y otros agentes educativos a realizar un diagnóstico para estar preparados ante cualquier situación perturbadora o compleja que pueda producirse en el futuro de los sistemas educativos. El modelo también puede servir para actualizar los contenidos y métodos de los programas de formación del profesorado, ya sea inicial o continua.

6. Συμπεράσματα (GR)

Το πλαίσιο ικανοτήτων που υποστηρίζει το πρότυπο μάθησης ONLIFE (ΠΜΟ) έχει τύχει θετικής υποδοχής τόσο από τους ειδικούς όσο και από τους επαγγελματίες. Η διαδικασία επικύρωσης κύλησε σύμφωνα με τις προσδοκίες, δίνοντας ικανοποίηση στους περισσότερους συμμετέχοντες. Με κάποιες διαφορές μεταξύ των εταίρων, το μοντέλο παρουσιάζει συνέπεια με τα αποτελέσματα των IO1 και IO2, καθώς και με τα αποτελέσματα της διαδικασίας διαβούλευσης των εμπειρογνωμόνων, οι προτάσεις των οποίων εξετάστηκαν διεξοδικά για την τροποποίηση του αρχικού μοντέλου, έτσι ώστε να παραχθεί ένα νέο συναινετικό τελικό μοντέλο. Επιπλέον, το διαγνωστικό εργαλείο που συνδέεται με το ΠΜΟ θα πρέπει να στηρίξει την ετοιμότητα των σχολείων να αντιμετωπίζουν, εκ των προτέρων, καταστάσεις που δημιουργούν αναστάτωση, στο πλαίσιο μιας υβριδικής εκπαίδευσης με τη μεσολάβηση ψηφιακών τεχνολογιών.

Το πλαίσιο ικανοτήτων περιλαμβάνει τέσσερις κύριους τομείς, κατά σειρά σπουδαιότητας, και συγκεκριμένα: *παιδαγωγική, τεχνολογία, αυτορρύθμιση και ηγεσία*, με συνολικά δεκαεπτά ικανότητες (τέσσερις ταξινομούνται ως "γνώσεις", επτά ως "δεξιότητες" και έξι ως "διαθέσεις").

Το πλαίσιο ικανοτήτων στο οποίο στηρίζεται το πρότυπο μάθησης ONLIFE (ΠΜΟ) έχει τύχει θετικής υποδοχής τόσο από τους Ευρωπαίους ειδικούς όσο και από τους επαγγελματίες. Το μοντέλο παρουσιάζει συνοχή με τις αρχικές εργασίες του ONLIFE και με τα αποτελέσματα της διαδικασίας διαβούλευσης με τους εμπειρογνώμονες, οι προτάσεις των οποίων λήφθηκαν σοβαρά υπόψη για την τροποποίηση του αρχικού μοντέλου, έτσι ώστε να εκπονηθεί με συναίνεση ένα νέο τελικό μοντέλο. Επιπλέον, το διαγνωστικό εργαλείο που συνδέεται με το ΠΜΟ θα πρέπει να στηρίξει την προετοιμασία των σχολείων για την εκ των προτέρων αντιμετώπιση καταστάσεων που δημιουργούν αναστάτωση, στο πλαίσιο μιας υβριδικής εκπαίδευσης με τη μεσολάβηση ψηφιακών τεχνολογιών.

Με βάση το γεγονός ότι είναι δύσκολο να προβλέψουμε το μέλλον, πιστεύουμε ότι το μοντέλο ΠΜΟ μπορεί να βοηθήσει τους εκπαιδευτικούς, τους διευθυντές και άλλους εκπαιδευτικούς φορείς να κάνουν μια διάγνωση ώστε να είναι προετοιμασμένοι για κάθε ανατρεπτική ή σύνθετη κατάσταση που μπορεί να προκύψει στο μέλλον των εκπαιδευτικών συστημάτων. Το μοντέλο μπορεί επίσης να χρησιμοποιηθεί για την επικαιροποίηση του περιεχομένου και των μεθόδων των προγραμμάτων κατάρτισης των εκπαιδευτικών, είτε πρόκειται για αρχική είτε για συνεχιζόμενη εκπαίδευση.

ANNEX 1: National reports of focus groups with experts

1. Pedagogical University of Krakow – Poland

Relevance and Importance of Competencies
The group found that Leadership is not so essential for online adaptable teaching. However, we arrived to a conclusion that the school leaders at all levels should be aware of various possibilities of online and hybrid teaching implementation and in particular should be aware that qualitive online teaching requires quite a deal of previous training, which should be completed BEFORE an emergency occurs. Thus, it is essential that adaptable teaching becomes part of professional development. Some participants pointed out that it is not necessary that all teachers have all competences but it is essential that one or two have competencies on a very high and up to date level, so that they can quickly advice fellow teachers if necessary.

In the area of Pedagogy, the group found dispositions to foster inclusion and cross-cultural skills not particularly important in specific online or hybrid set-up. We arrived also to a conclusion that online teaching need not to mimic in-person teaching. In fact, it can be quite different. One should, as a teacher, be able to find and use advantages of the new situation. In particular, teachers should be trained in using online tools, which cannot be applied in traditional classroom (for example because smart phones are not allowed in classes) but can easily be applied when working in a hybrid or online environment. We also pointed out that electronic communication with fellow teachers, students and parents happens on daily basis and it is not necessary to attach it to online adaptability.

In the area of Technology there was very little discussion. Everybody agrees that listed skills and knowledge are essential. We pointed out also that these competences must be up to date, so that they become part of regular professional development, which at presence focuses on pedagogical aspects.
The Metacognition area, in contrast to Technology, led to a lot of discussion. It seems that this part requires additional work and clarification because most of participants understood key areas listed here in different ways. Some participants pointed out that the openness to technological change should be placed under Technology area.

Overlapping Competencies: Can they be expressed as one?
No overlaps detected.

Other Useful Competencies to be included
No missing competences identified.

Sufficiency of Competencies: Rating on a Scale of 1-10

The lists are long enough and cover the intended areas (take into account remarks in the first part of the report). However, their meaning could be better, more precise articulated.

Policy Recommendations

Assigning a teacher, or a group of them, depending on the size of a school, as an expert in hybrid, online teaching and make sure his competencies are up to date. This teacher / group of teachers should be ready in case emergencies pop up to take lead in promoting their competences to fellow teachers.

Not all teachers need to be trained in adaptable teaching but they should be aware of its existence and reach for help and resources when needed.

2. Digital Learning Network ETS - Italy

Methodology

The focus group was organised on the 10th February 2023 by DLEARN by gathering education experts able to comment and deliver insights and information about the Online Learning Paradigm (OLP) and policy recommendations of ONLIFE project. The mission was to assess competence areas of the OLP and verify what are the needs policy wise for online education. The focus group was organised face to face and gathered 5 participants in total. The session lasted more or less 1 hour and a half and was led by DLEARN project manager Ms. Francesca Pissarello as a discussion and debate among participants in order to favour a productive dialogue. The staff asked some questions about the four competence areas, specifically, leadership, pedagogy, technology, and metacognition and then opened the floor to a more general exchange about policy recommendations.

Relevance and Importance of Competencies

The focus group started with questions about the 4 competences identified by OPL model; that is to say: leadership, pedagogy, technology, and metacognition. The entire group interwieved stated that all the listed competences are very much essential in order to make educators ready to use digital skills and technologies amidst a period of emergency such as Covid19 pandemic and online classes due to crisis episodes. In particular a couple of participants stressed the technology competence as the most important one that teachers should have to properly master distant teaching and provide their students with high quality lessons.

Overlapping Competencies: Can they be expressed as one?

The whole group of focus group participants stated that competences are not overlapping and therefore is not possible to express them as one. There was substantial full agreement from all on this question.

Other Useful Competencies to be included

None from the focus group participants suggested during the session an additional competence to be included in ONLIFE OLP model. Nevertheless it was agreed, during the discussion, that another aspect that should be taken into consideration when dealing with online teaching in emergency contexts is the ability to be empatethic and attuned to learners' psychological state. Educators stressed the importance for the trainer(s) to be good motivators in a hybrid/online context where communication is filtered by ICT and emotional intelligence is indeed key. The group suggested hence emotional intelligence as a transversal skill embedded in all the 4 competences listed.

Sufficiency of Competencies: Rating on a Scale of 1-10

Participants to the focus group were asked to rate on a scale from 1 to 10 the 4 competences – leadership, pedagogy, technology and metacognition with 10 being the highest score in terms of sufficiency and essentiality. The results are reported in the following table:

Leadership	8
Pedagogy	9
Technology	10
Metacognition	9

Policy Recommendations

The focus group participants discussed which policy policy recommendations could help school teachers effectively transition to online teaching in the event of an emergency. They all agreed that the majority of teachers in schools are not digitally ready in terms of skills and competences needed in case of hybrid or/and online teaching and that is therefore essential to prepare them in such respect.

All the participants arrived to the conclusion that a continuous 'train of the trainers' is needed and advised in order to allow a smooth transition to online environment.

3. Liceul Teoretic “Tudor Arghezi” - Romania

The focus group with experts were presented the Romanian version of the PPT about the aims and the intellectual outputs of the ONLIFE Erasmus Project, the main discussion topic being IO3, that is the ONLIFE Learning Paradigm (OLP), for the recognition and validation of Competences for School Education (SE). The experts of the Focus Group were asked the following questions:

a) **What is your opinion about the specific areas and competences identified by the project consortium, in terms of relevance and importance?**
The experts agreed that the four areas and the specific competences are both relevant and important.

b) **Do you consider that some of the competencies overlap and could be better expressed as one?**
There were identified two competences which sounded the same, belonging to different key areas:
Leadership: “Ability to establish an understanding in the professional community of the pervasiveness of digital solutions in everyday life and in the teaching profession”
Metacognition: “Ability to establish an understanding of the pervasiveness of ICT in everyday life”

c) **What other useful competences would you suggest, in order to measure readiness to adapt in pandemic situations?**
No other competences were suggested
On a scale of 1-10, the focus group experts rated the sufficiency of the competences as follows:

Leadership	9
Pedagogy	9
Technology	9
Metacognition	9

Policy recommendations:

Teachers’ readiness to use technology in their practices and apply the Onlife Learning Paradigm depends on how willing policy makers are to invest in education and create opportunities for teachers to attend ICT courses.

4. Liceo Statale “Ettore Majorana” – Italy

Methodology

Number of participants: 13

The focus group with teachers, several experts in ICT, were presented in the English version of the PPT about the aims and the intellectual outputs of the ONLIFE Erasmus Project. The main discussion topic being IO3, that is the ONLIFE Learning Paradigm (OLP), for the recognition and validation of Competences for School Education (SE). The participants of the Focus Group discussed the following questions. Here follow their answers.

a. What is your opinion about the specific areas and competencies identified by the project consortium, in terms of relevance and importance?

As far as relevance of the four areas, participants all agree that specific competences are all relevant and important.

b. Do you consider that some of the competencies overlap and could be better expressed as one?

As far as repetition of competences, colleagues find that all the descriptors correct but technology’s once. In fact, participants would suggest distinguishing “Ability of protecting educational resources” and transforming it into an additional key area.

c. What other useful competences would you suggest, in order to measure readiness to adapt in pandemic situations?

No other competences are suggested by participants. As far as the area of **leadership**, participants suggest to clarify “*Disposition to motivating, encouraging, trusting and valuing colleagues to explore digital approaches for both disruptive and regular situations*”, because it is too complex and concentrated; it should be better declined.

As far as **metacognition**, participants suggest adding a new disposition to reschedule daily school time and spaces.

Areas	Evaluation
Leadership	8
Pedagogy	10
Technology	7
Metacognition	9

Policy Recommendations

After a discussion, participants underline the gap between formal aspects required by schools concerning assessment (paper-test to be stored) to be consulted if requested, and readiness of teachers who want to use technology in their practices.

5. European Association of Career Guidance - Cyprus

Methodology

The information gathering process regarding the assessment of competence areas in the context of the Online Learning Paradigm (OLP) and policy recommendations was conducted through the conduct of a focus group. The focus group consisted of 11 participants, including school teachers, headmasters, and quality assurance leaders in education, who were selected based on their varied areas of expertise. The session was conducted on January 24th, 2023 for approximately one hour and utilized semi-structured interview questions to investigate four key competence areas, specifically, leadership, pedagogy, technology, and metacognition. The discussion was productive, yielding insightful observations, and the participants expressed their appreciation for the informative nature of the presentation.

Relevance and Importance of Competencies

The focus group participants reached a consensus that all four competence areas, namely leadership, pedagogy, technology, and metacognition, are critical for teacher readiness and successful transition to digital learning in the event of a crisis. They deemed these competencies to be essential for delivering effective and high-quality instruction in a virtual learning environment.

Overlapping Competencies: Can they be expressed as one?

The focus group participants reached a conclusion that there were no overlapping competencies and that each of the four competence areas presented (leadership, pedagogy, technology, and metacognition) held equal significance. They deemed these competencies to be crucial for ensuring preparedness and facilitating a successful transition to digital learning during a crisis scenario.

Other Useful Competencies to be included

The focus group participants discussed several recommendations for improving the transition to online teaching in a crisis situation. With regards to pedagogy, the participants recommended developing competencies for identifying and adopting different approaches for online teaching students of different ages and abilities. This will help teachers tailor their instruction to the specific needs of their students and provide a more effective learning experience.

In terms of technology, the participants recommended developing competencies for adapting materials to meet the needs of students with diverse abilities and acquiring technological proficiency. This will help teachers effectively use technology to facilitate online teaching and learning.

Finally, the participants recommended developing competencies in metacognition. This includes considering the moral and philosophical aspects of online teaching, including its potential benefits and drawbacks. By addressing these areas, teachers will be better equipped to make informed decisions about the use of online teaching and provide a high-quality learning experience for their students.

Overall, the focus group participants emphasized the importance of providing teachers with the necessary skills and knowledge to effectively deliver instruction in a virtual learning environment. By implementing these recommendations, schools and educators feel that they will be better equipped to transition to online teaching in the event of a crisis and provide high-quality instruction to their students.

Sufficiency of Competencies: Rating on a Scale of 1-10

The focus group participants evaluated the sufficiency of the identified competence areas on a scale of 1 to 10, with 10 being the highest level of sufficiency. The results showed that the competencies of leadership and metacognition were rated as 8, while the competencies of pedagogy and technology were rated as 10 and 9, respectively. These evaluations suggest that the focus group participants believe that pedagogy and technology are essential competencies for teacher readiness and successful transition to digital learning, while leadership and metacognition are also important but to a slightly lesser extent.

Leadership	8
Pedagogy	10
Technology	9
Metacognition	8

Policy Recommendations

The focus group participants discussed several policy recommendations to help school teachers effectively transition to online teaching in the event of a crisis. They acknowledged the importance of preparing teachers for this transition and suggested several key areas for improvement.

First, they recommended encouraging research to study the specific competencies needed for online teaching for different age groups. This will help in developing a more targeted approach for teacher training and professional development. The participants also recommended identifying and analyzing effective platforms and software to help schools and teachers make informed decisions about the technology they use.

Additionally, the participants emphasized the importance of providing ongoing professional development opportunities for teachers to develop their competencies in online teaching. They encouraged collaboration between educators, administrators, and technology experts to develop and implement best practices for online teaching.

Finally, the participants acknowledged and incorporated the role of metacognition in online teaching and suggested training teachers to help students develop their own metacognitive skills. By doing so, students will be better equipped to learn and succeed in a virtual learning environment.

Overall, the focus group participants agreed that by implementing these policy recommendations, schools and educators will be better equipped to transition to online teaching in the event of a crisis and be able to effectively deliver high-quality instruction in a virtual learning environment.

6. University of Barcelona – Spain

Methodology

The process of gathering information regarding the assessment of competency areas in the context of the online learning paradigm (OLP) and policy recommendations was carried out through an online consultation, followed by a focus group to discuss the results of the consultation. After an open call on professional educational social networks and direct invitations, the final number of participants in the online consultation was 9, coming from different institutions from all over Spain, some of them from Latin America, who visited the University of Barcelona. They were selected for their interest and expertise, including publications. The objective was to provide feedback and offer suggestions for improvement in the four areas of key competencies, namely leadership, pedagogy, technology and metacognition, which are the components of the PLO. Participants were provided with a link to the PLO competency framework, and a link to the survey. All documents were translated into Spanish beforehand.

After receiving the competency framework, participants completed a survey at:https://docs.google.com/forms/d/e/1FAIpQLSd6RHylA7A2yudt4FrgkjC8ruynxqpdV3ZjBIwSl57XPs9EEg/viewform

In the f2f focus group there were 8 participants, mostly principals, teachers, researchers and quality assurance leaders in education. It was held on February 9, 2023, for approximately two hours, and a synthesis of the results of the online consultation was used as a base document to investigate four areas of key competencies, namely leadership, pedagogy, technology, and metacognition. Given the rich approach of the consultation, the discussion was very productive and yielded insightful observations. Participants expressed their appreciation for participating in the process.

Results

Below we present the results of both consultation approaches, which include aspects as relevance and importance of competencies, Overlapping Competencies, Other Useful Competencies to be included, Sufficiency of Competencies, and policy recommendations

Relevance and Importance of Competencies, and potential overlaps

As with respect to the relevance of the competencies in the area **Leadership**, the key responses were yes, considering coordinated and shared responses in disruptive situations seems to be essential to be able to face digital challenges in collective terms, not only individually but by the entire educational community. However, leadership should be based also on some kind of authority, otherwise leadership may be wasted or simply not given.

Participants also pointed out that having an open attitude to effective teamwork management helps everyone cope with stress in times of crisis.

Some of the participants claim that although the proposed competencies discriminate sufficiently, addressing awareness raising, motivating action/exploration and

coordination, a component of **Knowledge about Leadership (K)** is missing, tackling leadership in conflicting situations (situation analysis, risk studies, intervention, methodological alternatives, etc.). They expressed that a committed leader in a crisis context should have some kind of theoretical and practical training on conflict coping models. As a conclusion, to add a competence on “knowledge in leadership” seems to be reasonable for the participants, an area that has not been included in the current model.

As with respect to the area of **Pedagogy**, there has been a consensus on the importance and relevance of the different competencies proposed, as e.g. participants found minimizing the digital divide a key one. There has also been discussion, emerging few nuances about some of the competencies proposed.

It was not clear the "Ability to compare ONLIFE examples in different aspects of daily life (S)", since the ONLIFE examples are not well known or can be known, so putting it as a competition seems risky, so they suggest specifying or give more information about the examples.

An important skill proposed in relation to pedagogy is to be able to design, apply and evaluate communication procedures in digital environments among the educational community, which is part of the proposed competencies, but need some rewording.
Participants proposed to include the ability (S) to promote collaboration between students and between teachers.

Beyond knowing specific didactic approaches, it is important to know strategies to implement them taking students into account, so that they are the creators of their own learning trajectory. So, knowledge of strategies for the personalization of learning is suggested to be included.

Some teachers agreed that the model lacks a professional attitude of helping others: "Maintain the mentality of service to others above (or on a par with) that of self-protection". Let us not forget that selfishness prevails in these situations.

In this dimension, literature has shown that socio-emotional competencies are key, as we experienced during the pandemics. Then, it is also worth including the socio-emotional competence of both teacher and the students, although it can also go in the section of Pedagogy or Metacognition.

In the area of **Technology** there was a consensus on the important of all the proposed competences, and it is necessary to emphasize all four competencies, even when there are similarities between them. It pays to be redundant here. Additionally, participants proposed on both online and face-to-face meetings some suggestions:

Some found missing "search", since search for and understand different solutions applicable to your specific needs, more than having general knowledge. In disturbing situations solutions come and go very quickly, so adaptive teachers need to look for useful solutions for a given moment. Also more emphasis is necessary to take

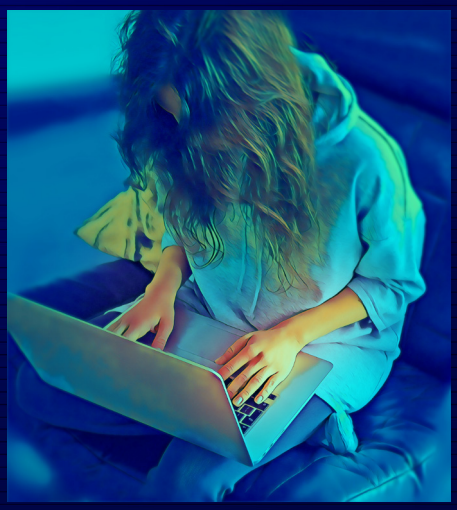
responsibility and willingness to learn digital solutions and technologies, getting out of the comfort zone, identified as a disposition. More is also necessary on the respect to the ethical use of Internet communication.

Finally, in relation to **Metacognition**, there was a consensus on the importance of this area, and a general agreement on how this dimension has been developed in terms of competencies. A certain discussion came with respect to the use of the term of metacognition versus the term self-regulation, according to the set of competences defined. It was not clear which one encompasses better the framework designed. In the end, a decision was made to introduce the idea of **self-regulation** within the model as part of the description of the metacognition area, introducing a new wording in it. Some minor comments were related to classifying one competence as a knowledge instead of skill.

Sufficiency of Competencies: Rating on a Scale of 1-10
In the scale 1-10, all were marked over 8. The highest average was “Metacognition”, with an average of 9.

Policy recommendations
A long list of recommendations was proposed and discussed. Above all, policies should focus on two key areas: expanding the importance of renewing teacher training and ensuring the availability of the necessary technological resources:
- In schools, establish stable channels (formal and informal) for individual and collective relationships between students, between students and teachers, and between teachers.
- ICT and education specialists in schools, management (measures to liberalize school hours to organize teachers' work) and technological infrastructures (greater accessibility to digital resources at all levels and in all subjects, with platforms more accessible to all).
- Promote joint institutional contingency plans organized by the educational authorities. Individual actions end up being diluted and do not really reach teachers efficiently.
- More autonomy for schools, professionalization of management teams.
- Radical change in initial teacher training. One of the greatest difficulties of the change we are facing is learning to teach in a different way from the one we learned. This can be alleviated from now on, if the new generations of teachers learn with new methodologies, strategies, tools and competencies.
- Educational policies should establish continuous monitoring systems to update teachers' knowledge, as is done in other countries, in order to remain current. As long as no one feels that change is necessary in a systemic and holistic sense, everything remains good intentions.
- Guaranteeing access to information and online communication, that is, ensuring sufficient and connected devices. Then, develop training to increase teacher digital competence and the exchange of good practices.

Conclusions
The ONLIFE LPTM has been well received by both specialists and professionals. The validation process has been in accordance with expectations, showing satisfaction among all participants. Suggestions will be included in the model, as they all fit well with it. Together with the suggestions of the ONLIFE partnership, a new version of the LPTM competency model will be elaborated as a synthesis of the validation process.



https://onlife.up.krakow.pl/

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IO3 Guidebook

ONLIFE Learning Paradigm (OLP) for the recognition and validation of Competences for School Education (SE) professionals

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