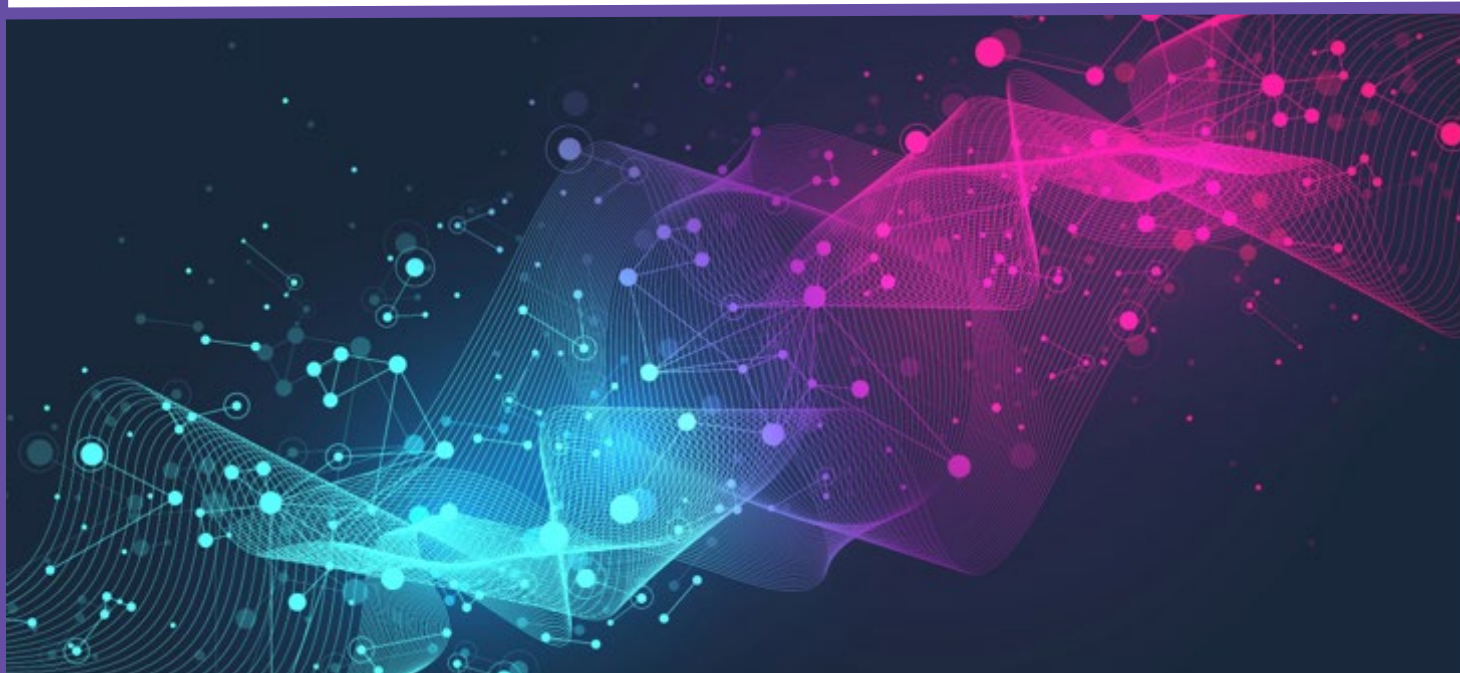




CRITICAL CURATION AND COLLABORATION IN LEARNING (CUR8)

TRAIN-THE-TRAINER FORMAT: METHODOLOGY





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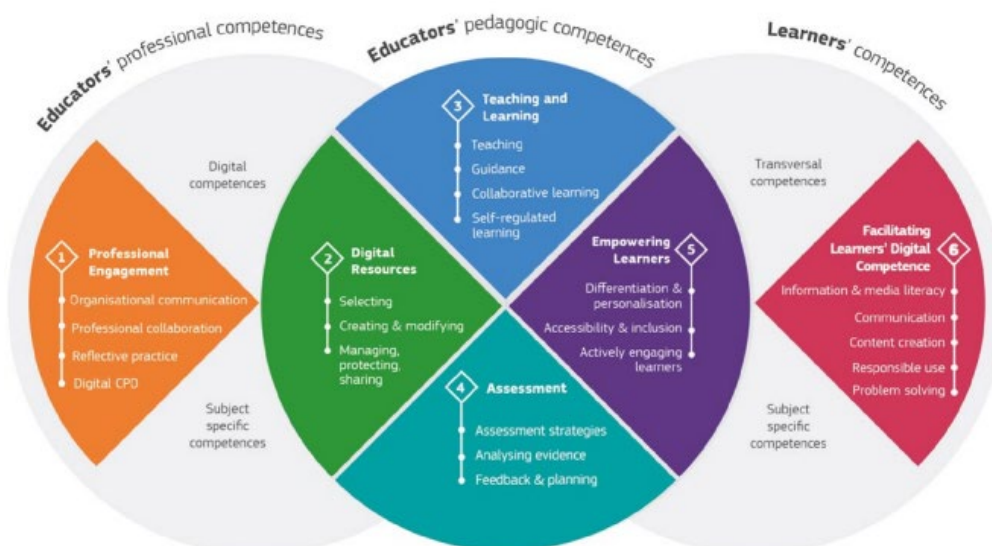
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Introduction

Learning and Development Professionals (L&D Professionals) are increasingly confronted with the challenge of creating and managing digital content to enhance the learning effectiveness of Continuous Vocational Education and Training (CVET) including upskilling or reskilling workers. The COVID-19 Pandemic clearly exacerbated this as does its legacy of dramatically increased hybrid working for employees.

Within the context of developing and delivering Blended Learning, Collaborative and Self-Directed Learning programmes for these adult learners, the **Cur8** modular blended learning programme is designed to support the digital competence development of L&D Professionals. It builds on the principles laid down in the European Framework for the Digital Competence of Educators (DigCompEdu) - the framework that describes what it means for educators, (including L&D professionals in CVET, the workplace and nonformal learning contexts) to be digitally competent. DigCompEdu provides a general reference frame to support the development of educator-specific digital competences in Europe.



Whilst referring to this Framework, the **Cur8 Train-the-Trainer Format** has as its main focus on capacity building and the targeted development of the specific digital competences needed to support the transition by CVET educators from the traditional approaches of 'content creator and presenter' to 'learning facilitator, meaning-maker and enabler'.

The Cur8 approach is complementary to the DigCompEdu (See Annex 1 for the aspects of the DigCompEdu addressed), it provides:

- ◆ Three innovative new competence reference frameworks for self assessment, planning Learning Pathways and the validation of informal learning, and
- ◆ learning materials, tools and Apps through which L&D Professionals can develop the knowledge, skills and attitudes that underpin these competences.



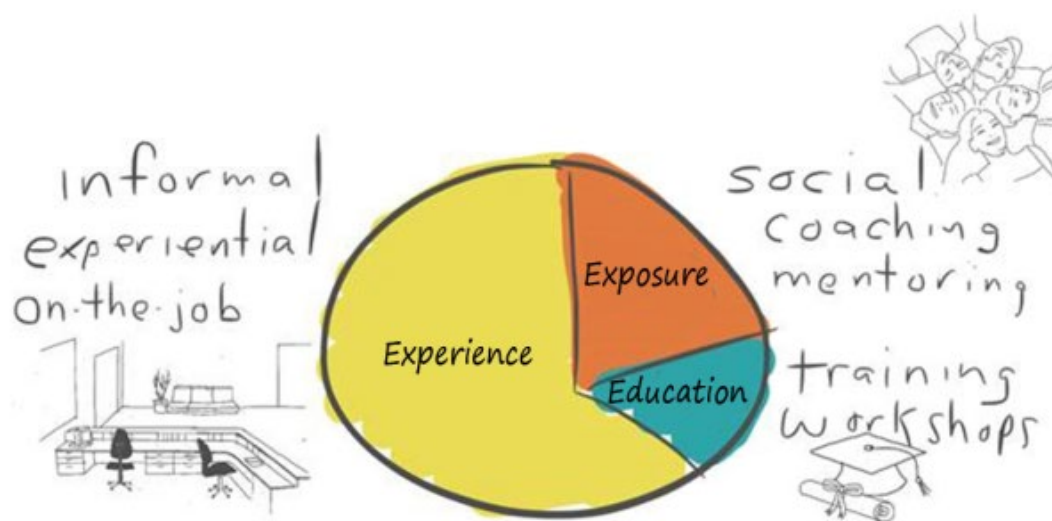
The Cur8 Train-the-Trainer format is based on the detailed and targeted development of three key digital competences:

- ◆ Critical Digital Curation of Learning Content
- ◆ Promoting Critical Digital Literacy (CDL) and Managing Required Changes
- ◆ Facilitation of Collaborative Online Learning

Fundamental to the **Cur8** approach is the use of Critical Digital Literacy skills - skills that are needed in order to aggregate and filter relevant content. Critical Curation of Learning Content now plays an essential role in the learning process and serves as an important digital literacy requirement for educators and knowledge workers alike. It occupies a central position in the 'meaning-making' process in a digital age (Betts & Payne 2016). Positioning Curation and Online Collaboration as elements of Critical Digital Literacy further enriches current conversations about digital literacy and educational technology.

Critical Curation and Collaborative Online Learning activities offer the opportunity to source learning content in dynamic, learner-centred and socially-interactive ways. They particularly support a problem solving, experiential and inquiry-based pedagogy in which learning can be focused on meet skills gaps. It is however acknowledged that it is hard to replicate practical skills development online.

L&D Professionals in CVET context need to be able to connect the right learning resources to the right person at the right time. This is considered particularly pertinent within the context of Upskilling and Reskilling adults when the majority of learning takes place informally, experientially and often on-the-job (Ref the 3E Model of Learning¹: the 70-20-10 model for skills-based learning and development).



This approach is therefore relevant to both Educators AND learners who, throughout this modular programme are encouraged to become digital curators who not only consume information and learning opportunities that they find on the internet, but red also evaluate and synthesise it to meet specific learning and performance needs.

¹ The 70-20-10 Model for Learning and Development: <https://trainingindustry.com/wiki/content-development/the-702010-model-for-learning-and-development/>



The Methodology

The **Cur8** Train-the-Trainer Format or Methodology aims to support the digital competence development of Learning and Development Professionals in CVET by:

- ◆ Raising awareness about the changing role of the Learning and Development in CVET; the transition from being presenters of learning, ‘the sage on the stage’, to a learning enablers, ‘the guide on the side’ directing learners to excellent learning content (a curator-concierge model)
- ◆ Updating their learning design and content creation skills to include Learning Content Curation in their approach by giving practical guidance on how to effectively combine sources, ideas, content, and platforms to create clear and balanced learning opportunities and, importantly, how to develop these competences in learners in order that they can become effective self-directed and autonomous learners
- ◆ improving their Critical Digital Literacy skills including guidance on how to promote these skills amongst their learners
- ◆ providing a wide range of Learning Design and Content ‘How to’ guides including for Curation, Use of OER, Digital Storytelling, creating Mash-ups, producing Podcasts etc
- ◆ providing guidance on empowering and actively engaging learners in an online context
- ◆ supporting their digital wellbeing

The methodology seeks to ensure that L&D Professionals will not only be able to evaluate online information and the validity and relevance of content to upskilling and updating adult learners, but also to ensure that they know how and when to incorporate digital tools and Apps into their learning programmes in useful and creative ways.

To this end, the Consortium has developed a methodology, a modular blended learning programme, a Learning Experience Platform (with ‘pick-and-mix’ Netflix-like access to a range of relevant learning topics) and a Toolbox of Apps and Tools that support digital learning content curation, access to recommended OER, learning design, digital learning content creation, the facilitation of collaborative online learning and delivery.

The Learning Experience Platform (LXP) and Toolbox are designed to allow L&D Professionals to explore new tools and digital trends in learning and become more tech-enabled to better support lifelong learning, upskilling and reskilling. The tools, resources and learning topics are designed (and curated) to enable L&D Professionals to optimally support self-direct adult learners, curate and present useful learning content and tackle the challenges of digital learning environments.

The majority of the learning offer on the LXP is available in English, but many of the topics and tools are also available in German, Bulgarian and Swedish.

The end goal of the **Cur8** project is to address the urgent need (identified pre-COVID-19 pandemic) to update the digital competences of CVET Educators and Trainers/L&D Professionals (the direct target group) by:



- ◆ Creating an innovative Train-the-Trainer format, with supporting Toolbox and Learning Experience Platform, for competence development in facilitating collaboration for learning and digital content creation
- ◆ Providing useful skills and action-oriented methods on how to develop critical digital literacy skills for learning and digital learning content creation
- ◆ Enhancing the digital and self-directed learning competences of adult learners (final beneficiaries),

The COVID-19 Pandemic created seismic changes in the use of e-learning and online communication. The enforced absence of face-to-face and group learning opportunities underlined the importance of blended learning solutions which are particularly important for teamwork and practical skills development.

The Context and Rationale for this Methodology

It is worth, at this point, reflecting on the reasons for this initiative.

The European Framework for the Digital Competence of Educators (DigCompEdu) states the urgent need for educators to develop a specific set of digital competences in order to be able to seize the potential of digital technologies in enhancing and innovating education. In addition a number of research reports point to the fact that among Learning Professionals the ability to facilitate collaboration for learning and digital content creation is as a priority, however only about a third felt. The COVID-19 crisis brought a radical transformation to the whole educational sector, including the Continuing Vocational Education and Training (CVET) subsector. On the whole, many, if not all trainers, made the transition to a digital teaching environment. They managed to conduct at least some of their classes online and acquired new competences, speeding up the digital transformation. However, many teachers and trainers had very little time to prepare to the transition to online education, meaning that they lacked the necessary skillset to adapt to the new environment and kept using outdated methodologies, unsuited for the new circumstances. As a result, for many trainers and learners alike, their first experience of digital learning has been mostly negative.

The difficulties experienced were compounded by the lack of opportunity to deliver practical skills development. VET training almost invariably have a significant practical, hands-on component, delivered in a face-to-face environment. The most frequently used model for education is the group practice. These preconditions mean that the area does not necessarily lend itself to an easy transition to a digital format of teaching and learning.

Theoretical knowledge of concepts such as blended learning, self-directed learning, and curation, is still lacking amongst a large proportion of the CVET trainers. The situation looks much better in practice – even if they didn't have the time to study these concepts, they already discovered some of their benefits in their teaching practice and have adopted suitable behaviours. However, for many the shift was simply from "Classroom to Zoom/Teams", with little understanding of the techniques and processes required to engage and empower learners in the online context.

The skills of Educators and Trainers are having to change from those of being the 'sage on the stage' (creating and presenting learning), to a 'curator-concierge' model – directing learners to excellent existing learning content. This is a shift in mind set as well as skill set. Educators are also increasingly



confronted with the challenge of sourcing, filtering, creating and managing digital content to enhance learning effectiveness.

At the start of the project (which was initiated pre-pandemic), the Project Consortium undertook a detailed stocktaking and comparative analysis exercise across each of the partner countries: Austria, Bulgaria, Germany, Sweden and the UK.

This involved a combination of desk research covering the partner countries and interviews with selected experts. The desk research was undertaken using the internet and through access to research from organisations that champion the use of digital technologies in education, such as Professional Institutes and University departments of education. In addition, in-depth interviews with around 40 educators and representative professional associations (CVET/VET providers, workplace trainers and Adult Educators) were undertaken.

In order to establish an effective connection to the potential users of the project outputs, the partners researched and articulated practice strategies for engaging educators in CPD to enhance and innovate education and training.

There were clear disparities between the partner countries in terms of how CVET was perceived. Whilst much of the focus of CVET Providers (including national employment agencies) was on upskilling and reskilling people with lower level qualifications (second-chance education), business organisations were more concerned with the shortage of skilled workers and updating the skills of employees for improved performance and productivity.

Almost invariably CVET involves a significant practical, hands-on component, delivered in a face-to-face environment. The most frequently used model for education is the group practice. These preconditions meant that the area did not necessarily lend itself to an easy transition to a digital format of teaching and learning. This was clearly a significant issue for L&D Professionals whether working in provider organisations or companies.

The Transnational Stocktaking Report (and the impact of the COVID-19 Pandemic) highlighted a clear need for a blended learning offer which enables CVET/Learning and Development Professionals to develop the specific digital competences needed to support the transition from the traditional approaches of 'content creator and presenter' to 'learning designer, facilitator, meaning-maker and enabler'.

For these reasons, a key attribute of the methodology will be on the integration of practical 'How to' Guides into the train-the-trainer format.

The understanding gained from this research, together with the experience and expertise of the partners has underpinned the pedagogical approach used in developing the **Cur8 Train-the-Trainer Format** for CVET/L&D Professionals and its associated products.

Please see the Transnational Stocktaking Report for a detailed explanation and comparison of our findings and conclusions.



A CPD Programme for CVET Educators/Learning and Development Professionals

The **Cur8 CPD** programme is designed to update the digital skills of CVET Educators (Learning & Development Professionals including Workplace Trainers, Lecturers, Trainers and Adult Educators).

The aim is to provide CVET Educators with flexible CPD pathways for developing the a specific set of digital competences that will enable them to seize the potential of digital technologies in enhancing and innovating Lifelong Learning, Upskilling and Reskilling of adult learners. It provides them with a range of useful skills, techniques and action-oriented methods for developing these competences.

This innovative Train-the-Trainer format aims to support the development of CVET Educators by:

- ◆ Changing their mindset from being the ‘sage on the stage’ (creating and presenting learning), to a ‘curator-concierge’ model - directing learners to excellent existing learning content.
- ◆ Providing upskilling and action-oriented methods on how to develop their own and adult learners’ critical digital literacy skills for learning
- ◆ Supporting competence development in the digital curation of learning content and facilitating collaborative learning in the online environment
- ◆ Develop the development of the skills to manage and orchestrate collaborative online and self-directed learning,
- ◆ Empower and actively engaging learners in the online context
- ◆ Encouraging them to maintain Digital Wellbeing
- ◆ Utilising the **Cur8 Learning Experience Platform (LXP)** to support targeted and personalised learning pathways
- ◆ Providing access a Toolbox of practical tools and Apps to support the implementation of learning activities with CVET Learners and the curation of learning resources
- ◆ put these skill sets into practice through a Learning Project which will pilot the concept, ensure competence development and support the transfer of learning into working practice.

The approach is innovative and particularly appropriate for improving the digital competence of educators as it is competence-oriented - digital skills and critical digital literacy will be a directly targeted action- and product-oriented – the educators will curate learning materials for their learners and experience how to transfer this approach to adult learners so that they can also become self-directed learners.

The **Cur8** programme not only supports professional development of CVET Educators but also, importantly, provides a range of Tools, Apps and CopyFree/OER materials for use with learners.

How it works

The **Cur8** approach is delivered through **a flexible, blended learning programme** consisting of **four training modules and a Learning Project**.

Together the four modules cover the knowledge and understanding needed to develop

Each module takes approximately 6 hours in a blended learning setting (face-to-face group sessions combined with self-study through e-learning or printed workbooks and associated materials).

The process of undertaking the Learning Project and the opportunity to validate their competence against the competences detailed in the **Cur8 Competence Framework** through the **LEVEL5 competence validation instrument**.

The modular blended learning design was chosen to facilitate personalised and self-directed learning. It 'practices what it preaches' by deploying an accessible approach to learning delivery including:

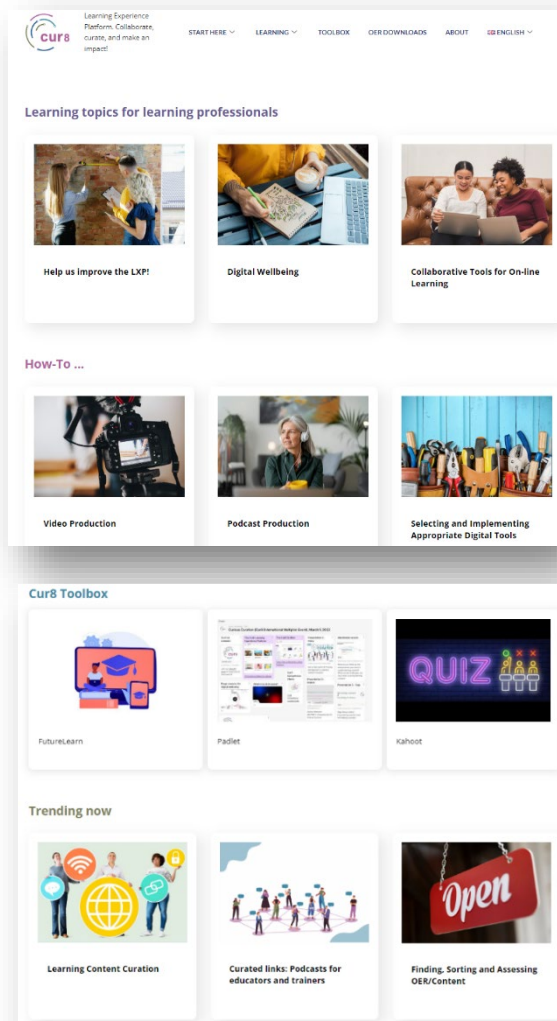
- ◆ opportunities for self-assessment, review, reflection, action planning and learning transfer
- ◆ adaptation of the training/professional updating according to local or personal needs and preferences;
- ◆ the opportunity to test out a range of digital tools and techniques including for curation, learning design and multimedia activities; and
- ◆ the provision of self-paced learning experiences with integrated learning tasks, activities and opportunities for self-assessment.

All the digital learning contents of the blended learning training programme and its modules are freely accessible (as OER) within the **Cur8 Learning Experience Platform (LXP) and Toolbox in English, Bulgarian, German and Swedish:**

<https://lxp.cur8learning.online> .

The **Cur8 LXP** gives open and downloadable access to:

- ◆ the modular training materials including workbooks, slideshows, activities and videos
- ◆ 'How to' Guides for the development of digital content
- ◆ The Toolbox including Tools, Apps, digital resources and learning materials + curated articles, research publications and relevant website links for each of the partner countries
- ◆ The LEVEL5 system for self-assessment and the non-formal validation of competence in
 - Critical Digital Curation of Learning Content
 - Promoting Critical Digital Literacy (CDL) and Managing Required Changes
 - Facilitation of Collaborative Online Learning (in CVET)





The **Cur8 Methodology** consists of 6 key steps for the CVET Educator/L&D Professional to complete:

1. Reflection and Self-assessment of **current understanding, skills and competences in terms of the 3 Cur8 competences** by using the 'Cur8 Spider':
https://mahara.vita-eu.org/survey/cur8_questionnaire1
2. Depending on the results of this initial assessment, and working with the Cur8 Competence Framework, create a Personalised Learning Pathway for gaining new Knowledge, Skills and Attitudes
3. Select relevant topics to study from the **four training modules** using the workbooks and related 'How To' learning resources
4. Familiarisation and practice in the use of the digital Curation of Learning Content and Facilitating of Collaborative On-line Learning
5. Complete a Learning Project* to support learning transfer into working practices
6. Complete the process of non-formal competence validation through the LEVEL5 system

- * During the Piloting Stage, staff who participate in the C1 Short-term Staff Training are required to draw up and implement **a Learning Project** to in order to develop and apply these skills/competences, and cascade their new learning.

The Learning project concept will also be recommended to all L&D Professionals as an excellent method for supporting the embedding of new learning into workplace practice.

Why blended learning and what does this mean?

The original use of the phrase 'blended learning' was often associated with simply linking traditional classroom training to e-learning activities. However, the term has evolved to encompass a much richer set of learning strategies.

Blended learning combines multiple teaching techniques, learning styles, and delivery methods. It's a great way to overcome the common challenges faced in Upskilling and Reskilling adult (CVET), such as ensuring learner engagement assessing skills and competence development and meeting diverse learner needs.

Blended learning strategies help to create the perfect learning environment:

- ◆ Using multiple types of instructional materials
- ◆ Incorporating technology for reinforcement
- ◆ Applying a variety of assessment methods
- ◆ Mixing up group working styles

The **Cur8** blended learning programme combines several attributes to create a blend of action-orientated structured and unstructured learning that includes:

- ◆ Trainer-led learning (in the training room, on-the-job and over the internet)



- ◆ Self-paced learning through accessible and interactive materials including workbooks, PowerPoint presentations, web-links, videos, exercises and activities, self checks and self-assessment.
- ◆ Collaborative learning and debate with peer groups, friends and/or work colleagues
- ◆ Practice and Performance support in the form of the Learning Project through which you can implement your learning, testing it out first in a controlled environment and, at the same time, if desired, assessing and validating your competences for LEVEL5 Certification.

<p>1. Face-to-face, in-person interventions</p> <p>e.g. introductory workshop, training courses, coaching, group workshop exercises, action planning, 'next steps' guidance, peer group working</p>	<p>2. Written interactions</p> <p>e.g. Using the learning materials as an e-learning package with tutorial support, e-mail coaching, the resources in the Cur8 LXP and Tool-Box eg. the 'How To' Guides, the module workbooks, LEVEL5 Validation</p>
<p>3. Voice Interactions</p> <p>e.g. Virtual Video conferencing, telephone support, web conferences, webinars</p>	<p>4. Individual study</p> <p>e.g. Reading, self-paced e-learning, watching videos (including YouTube) , self-checks, self-assessment</p>

As a result, the learning materials available on the LXP and in the Toolbox offer a blend of benefits to meet different styles of learning and to ensure, through a variety of practice scenarios, that participants not only understand the principles discussed, but can also apply them in their work context.

The Cur8 Modular Learning programme

The whole programme is made up from four modules (each comprising of a number of Topics), and a Competence Framework. All are available for self-directed learning on the Cur8 Learning Experience Platform. (See ANNEX 2 for the Learning Objectives and Indicative Content of the Modules – pp 14)

Module: The Evolving Role of the CVET Educator

After this module, participants will be able to:

1. Explain how and why the role of the L&D Professional is changing and the implications of this for CVET and Adult Learning
2. Identify and new approaches to supporting the upskilling and reskilling of adults
3. Use Critical Digital Literacy skills in curating learning content, including for collaborative curation and use of Open Educational Resources (OER)
4. Recount the benefits and value of Learning Content Curation for your own development and that of the learners you support
5. Facilitate collaborative online learning with adult learners



6. Self-assess levels of competence in Learning Content Curation, Promoting Critical Digital Literacy amongst Adult Learners and Facilitating Collaborative Online Learning before and after completing a personalised Learning Pathway
7. Using the Cur8 Competence Framework, create a Competence Development Learning Pathway for self-directed Upskilling/CPD
8. Utilize the range of 'How to' topics in the Cur8 Learning Experience Platform (LXP) and Tools and Apps in the Cur8 Toolbox

Content:

- ❖ Learning Content Curation
- ❖ Critical Digital Literacy
- ❖ Facilitation techniques
- ❖ Digital Learning Design
- ❖ Assessment in the Online Environment
- ❖ Communication Strategies for Online Learning
- ❖ The Cur8 Competence Framework
- ❖ Assessing Competence Development
- ❖ Using the Cur8 'How To' tools, Apps and learning materials to support competence development

Module 2: Learners in the Digital Context

After this module, participants will be able to:

1. apply strategies that empower learners to become self-directed and autonomous
2. encourage increased self-awareness in their learners
3. appreciate and counteract the challenges of learning in the digital context
4. recognise the behavioural implications of adopting a fixed or growth mindset and
5. apply the benefits of the growth mindset

Content:

- ❖ Empowering Learners
- ❖ Growth Mindset
- ❖ Challenges for learners in the digital context
- ❖ Supporting self-directed learning

Module 3: Curation and Digital Content in the Online Context

After this module, participants will be able to:

1. Select appropriate methods and tools for undertaking and promoting Critical Digital Curation.
2. Apply critical digital literacy to curation: the ability to critically assess the quality, validity and potential of learning content
3. Process, critique, categorise and evaluate large volumes of information
4. Use Curation software to source, select and organise learning resources



5. Reorganise, repurpose, supplement and further develop learning content to meet specific learner needs and practical skills development
6. Identify digital tools, apps and platforms that can be incorporated into delivery

Content:

- ❖ Learning Content Curation
- ❖ Finding, sorting and assessing OER/content
- ❖ Podcast production
- ❖ Digital storytelling
- ❖ Understanding copyright
- ❖ Selecting and implementing appropriate digital tools
- ❖ Mashups
- ❖ Video Production
- ❖ Video production
- ❖ Quizzes and Gamification
- ❖ The Virtual Classroom

Module 4: Digital Wellbeing

After this module, participants will be able to:

1. Explain the concept of digital wellbeing
2. Consider the effect of the digital environment on their own wellbeing
3. Recognise the first phase of 'digital burnout'
4. Be more aware of their current on- and offline digital activity and the implications of this on their wellbeing
5. implement strategies for organising digital activity and recognise potential areas for improvement

Content:

- ❖ The concept of Digital Wellbeing
- ❖ The building blocks of wellbeing
- ❖ Mental Health and wellbeing
- ❖ Burnout
- ❖ Digital Activity Analysis
- ❖ Digital Wellbeing: Strategies for Change
- ❖ Managing Stress

Supporting Element 1: The Learning Project

Objectives:

- ◆ To understand how to undertake a learning project that demonstrates the application/implementation of learning and learning transfer into workplace practice

Content:

- ◆ The project template



- ◆ Advice on completing the project
- ◆ Examples of best practice
- ◆ Advice on how to train CVET/Learning and Development Professionals on how to implement learning projects

Supporting Element 2: Competence Validation

Objectives:

- ◆ To evidence Critical Digital Literacy and Learning Content Curation skills in the Learning Projects
- ◆ To understand the benefits and the process of competence validation for informal/non-formal learning

Content:

- ◆ Introduction to validation/LEVEL5
- ◆ A Competence Framework
- ◆ Reference systems
- ◆ Assessment tools and methods
- ◆ Access to LEVEL5 software

Assessment Methods

- ◆ Self-Assessment exercises and activities including the Competence Spider
- ◆ Learning Projects
- ◆ LEVEL5 validation

ANNEX 1: The DigCompEdu Competences addressed in the Cur8 Train-the-Trainer Format

1.2 Professional collaboration

To use digital technologies to engage in collaboration with other educators, sharing and exchanging knowledge and experiences and collaboratively innovating pedagogic practices.

02. Digital Resources:

Digital Resources

 <p>Selecting digital resources</p> <p>To identify, assess and select digital resources for teaching and learning. To consider the specific learning objective, context, pedagogical approach, and learner group, when selecting digital resources and planning their use.</p>	 <p>Creating and modifying digital resources</p> <p>To modify and build on existing openly-licensed resources and other resources where this is permitted. To create or co-create new digital educational resources. To consider the specific learning objective, context, pedagogical approach, and learner group, when designing digital resources and planning their use.</p>	 <p>Managing, protecting and sharing digital resources</p> <p>To organise digital content and make it available to learners, parents and other educators. To effectively protect sensitive digital content. To respect and correctly apply privacy and copyright rules. To understand the use and creation of open licenses and open educational resources, including their proper attribution.</p>
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3.3 Collaborative learning

To use digital technologies to foster and enhance learner collaboration. To enable learners to use digital technologies as part of collaborative assignments, as a means of enhancing communication, collaboration and collaborative knowledge creation.

3.4 Self-regulated learning

To use digital technologies to support self-regulated learning processes, i.e. to enable learners to plan, monitor and reflect on their own learning, provide evidence of progress, share insights and come up with creative solutions

05 Empowering Learners

5.2 Differentiation and personalisation To use digital technologies to address learners' diverse learning needs, by allowing learners to advance at different levels and speeds, and to follow individual learning pathways and objectives.



ANNEX 2: The Learning Objectives and Indicative Content of the Cur8 Modular CPD Programme

Module: The Evolving Role of the CVET Educator

Learning Objectives <i>The purpose of this module is to...:</i>	Indicative Content <i>It will include the following topics:</i>	Learning Outcomes <i>By the end of the module CVET Educators/ L&D Professionals/AEs will be able to:</i>
<ul style="list-style-type: none"> ❖ Raise awareness about the changing role of the CVET Educator/Learning and Development Professional ❖ Provide an overview of a range of topics relevant to the digitisation of teaching and learning activities ❖ Support the development of skills and competences in: <ul style="list-style-type: none"> ◆ Digitally curating, creating and sharing learning resources ◆ Critical Digital Literacy in learning content curation and creation ◆ Managing and orchestrating collaborative and self-directed learning ❖ Facilitate personalised Digital Upskilling / Continuous Professional Development (CPD) Pathways for L&D Professionals 	<ul style="list-style-type: none"> ❖ The Changing Role of the CVET Educator/Learning and Development Professional ❖ Learning Content Curation ❖ Critical Digital Literacy ❖ Facilitating Collaborative Learning online ❖ Digital Learning Design ❖ Assessment in the Online Environment ❖ Communication Strategies for Online Learning ❖ The Cur8 Competence Framework ❖ Assessing Competence Development ❖ Using the Cur8 'How To' tools, Apps and learning materials to support competence development 	<ul style="list-style-type: none"> ❖ Explain how and why the role of the L&D Professional is changing and the implications of this for CVET and Adult Learning ❖ Identify and new approaches to supporting the upskilling and reskilling of adults ❖ Use Critical Digital Literacy skills in curating learning content, including for collaborative curation and use of Open Educational Resources (OER) ❖ Recount the benefits and value of Learning Content Curation for your own development and that of the learners you support ❖ Facilitate collaborative online learning with adult learners ❖ Self-assess levels of competence in Learning Content Curation, Promoting Critical Digital Literacy amongst Adult Learners and Facilitating Collaborative Online Learning before and after completing a personalised Learning Pathway ❖ Using the Cur8 Competence Framework, create a Competence Development Learning Pathway for self-directed Upskilling/CPD ❖ Utilize the range of 'How to' topics in the Cur8 Learning Experience Platform (LXP) and Tools and Apps in the Cur8 Toolbox



Module: Learners in the Digital Context

Learning Objectives <i>The purpose of this module is to...:</i>	Indicative Content <i>It will include the following topics:</i>	Learning Outcomes <i>By the end of the module Adult Educators will be able to:</i>
<ul style="list-style-type: none"> ❖ This module aims to increase the self-awareness of the educators on the challenges their learners are facing. It aims to encompass not only the challenges of the learning environment, but also the personal experience of the learners. ❖ The purpose of the selected topics is to offer a sound and science-based foundation into the psychological aspects of learning motivation in the digital context, so that the educators, in addition to having a deep understanding of these topics, are also able to encourage increased self-awareness in their learners. 	<ul style="list-style-type: none"> ❖ Empowering Learners 	<ul style="list-style-type: none"> ❖ understand and implement the main competences of psychological empowerment ❖ understand the importance of this psychological construct and the role of subjective perception ❖ test the level of psychological empowerment ❖ understand the link between empowering learners and to the concept of the learners' self-leadership
	<ul style="list-style-type: none"> ❖ Growth mindset 	<ul style="list-style-type: none"> ❖ know the foundations of fixed and growth mindsets ❖ understand and value the benefits of growth mindset ❖ recognise the behavioural implications of adopting a fixed or growth mindset ❖ able to implement a self-awareness test for themselves and their learners ❖ able to develop/encourage growth mindset in their learners
	<ul style="list-style-type: none"> ❖ Challenges in the DIGITAL context 	<ul style="list-style-type: none"> ❖ understand the implications of this more individual form of learning ❖ analyse the notion of "presence" and interaction ❖ get a broader perspective of the topic of interpersonal relationships in digital context
	<ul style="list-style-type: none"> ❖ Self-directed learning 	<ul style="list-style-type: none"> ❖ know how to foster self-motivation ❖ able to help learners set learning goals ❖ understand why goal setting matters ❖ know how to set goals effectively



		<ul style="list-style-type: none"> ❖ use tools to encourage self-motivation such as <ul style="list-style-type: none"> -> Tracking progress - Journaling -> Buddy systems -> Comparison/ leaderboard/ equity theory ❖ Micro-challenges - Superbetter app
	<ul style="list-style-type: none"> ❖ Attention in the digital context 	<ul style="list-style-type: none"> ❖ Gain deeper, science-based knowledge on the effect of the digital environment over the brain and its attention capacity (overstimulation of the brain/ neuroscience) ❖ Learn tips and tricks on how to improve the focus in the digital context ❖ Test new tools for improving attention in the digital context - e.g. focus mode apps ❖ able to set up a stimulating learning environment ❖ know how to deal with distractors



Module: Curation and Digital Content in the Online Context

Learning Objectives <i>The purpose of this module is to...:</i>	Indicative Content <i>It will include the following topics:</i>	Learning Outcomes <i>By the end of the module C-VET/L&D Professionals/AEs will be able to:</i>
<ul style="list-style-type: none"> ❖ Gain an in-depth understanding of the creation of digital learning content, including its design and development. ❖ A practical, 'hands-on' module to give L&D Professionals the confidence to continue their learning in designing digital learning assets. It will focus on providing the principles of effective learning content design in a digital context 	<ul style="list-style-type: none"> ❖ Learning Content Curation ❖ Finding, sorting and assessing OER/content ❖ Podcast production ❖ Digital storytelling ❖ Understanding copyright ❖ Selecting and implementing appropriate digital tools ❖ Mashups <hr/> <ul style="list-style-type: none"> ❖ Video production (production theme Curated) ❖ Quizzes and Gamification(production theme Curated) ❖ The Virtual Classroom (production theme Curated) 	<ul style="list-style-type: none"> ❖ use critical digital literacy skills in learning content curation ❖ Find and utilise OER ❖ facilitate online collaborative learning ❖ write and produce a podcast ❖ explore the component parts of producing an animated learning asset ❖ write and produce a live-action video learning asset ❖ write and produce an interactive learning asset ❖ list the key features of documenting the design process.



Module: Digital Wellbeing

Learning Objectives <i>The purpose of this module is to...:</i>	Indicative Content <i>It will include the following topics:</i>	Learning Outcomes <i>By the end of the module C-VET/L&D Professionals/AEs will be able to:</i>
<ul style="list-style-type: none"> ❖ This module aims to increase the self-awareness of the educators on the challenges they are facing, not only in terms of the digital environment, but also their personal experience of it. ❖ The purpose of the selected topics is to raise awareness of the concept of digital wellbeing and impact on mental health and offer practical approaches to address the psychological challenges of digital education. 	<ul style="list-style-type: none"> ❖ What is Digital Wellbeing 	<ul style="list-style-type: none"> ❖ understand the concept of digital wellbeing ❖ understand the effect of the digital environment on their own wellbeing ❖ recognise how the online space leads to blurred personal/professional boundaries ❖ understand the first phase of burnout – honeymoon (the excitement and taking on too many responsibilities)
	<ul style="list-style-type: none"> ❖ Digital activity analysis 	<ul style="list-style-type: none"> ❖ gain awareness of their current on- and offline digital activity ❖ identify the professional and personal implications (positive and negative) of digital activity ❖ consider how their current digital activity compares to that of pre-pandemic ❖ define potential areas for improvement
	<ul style="list-style-type: none"> ❖ Strategies for change 	<ul style="list-style-type: none"> ❖ manage responsibilities from the standpoint of digital wellbeing ❖ re-establish the boundaries between the personal/professional digital sphere ❖ understand the value in taking time away from the digital; ❖ have knowledge of strategies for organising one’s digital activity, such as prioritisation and subtle time-savers;



Supporting Element 1: The Learning Project

Learning Objectives <i>The purpose of this element is to...:</i>	Indicative Content <i>It will include the following topics:</i>	Learning Outcomes <i>By the end of the module participants will be able to:</i>	Competences <i>The knowledge, skills and attitudes.</i>
<ul style="list-style-type: none"> ❖ To understand how to undertake a learning project to apply the Cur8 approach 	<ul style="list-style-type: none"> ❖ Stimulating learning, reflection and learning transfer ❖ Success factors ❖ Exemplary cases ❖ Links to LEVEL5 	<ul style="list-style-type: none"> ❖ Understand the relevance of promoting reflection in a learning process ❖ Have a concrete idea of how to apply the Cur8 approach 	<ul style="list-style-type: none"> ❖ Utilise a Learning Project to pilot and test new approaches to CVET ❖ Cascade learning through the implementation of learning projects
<ul style="list-style-type: none"> ❖ To plan and implement a learning project in order to transfer learning into the workplace 	<ul style="list-style-type: none"> ❖ Learning project template ❖ Learning outcomes descriptions ❖ Guidelines ❖ Exemplary cases ❖ Practical support and guidance 	<ul style="list-style-type: none"> ❖ Prepare and implement a learning activity/learning project ❖ Assess and document competences and their development within the learning project 	

Supporting Element 2: LEVEL 5 Competence Validation

Learning Objectives <i>The purpose of this element is to...:</i>	Indicative Content <i>It will include the following topics:</i>	Learning Outcomes <i>By the end of the module participants will be able to:</i>	Competences <i>The knowledge, skills and attitudes.</i>
<ul style="list-style-type: none"> ❖ To make CVET Educators aware of and familiar with using the LEVEL5 validation system for assessing competences ❖ To introduce terms and terminology related to validation 	<ul style="list-style-type: none"> ❖ Purposes and benefits of validating informal and non-formal learning ❖ Terms, definitions and characteristics associated with validation ❖ The 5-step procedure for using LEVEL5 ❖ Self-Assessment methods ❖ LEVEL5 online / offline version 	<ul style="list-style-type: none"> ❖ Self-assess their own competences within the LEVEL5 Instrument ❖ Apply different assessment methods within LEVEL5 ❖ Apply both online and offline versions of the LEVEL 5 system 	<ul style="list-style-type: none"> ❖ Assess and document learners' competences and their development ❖ Summarize the validation and learning outcomes according to certain quality criteria ❖ Embed / connect LEVEL5 to own field of work



ANNEX 3: Assessing Competence Development and LEVELS

Introduction:

Society is moving in a direction where we all operate in a rich and increasingly personalised working and learning environment (e.g. triggered by the home office and other non-traditional forms of work). This means that the contextual component of competence (e.g. environment, preferences and expected quality) is increasingly important and needs to be taken into account in teaching and learning.

This requires new and different competences from both learners and trainers (including mentors, coaches and other learning supporters).

To cope with these new challenges from a didactic point of view, we need appropriate and specifically adapted approaches to teaching and learning to meet the new social (learning) environments. Mathetics - the art of learning - becomes a crucial element in this development and requires a competence-based approach to learning and training.

Competence Development:

The development of individuals' competences throughout their lives is a key challenge for today's knowledge-based society.

Assessment of competences is an important part of competence development. Different methods can be used in the assessment of competences, and the assessment of competences occurs at different points. Keep in mind that assessment goals change as learners make progress in their competence development. As a result, the forms of assessment that are used change, and thus the support that should be provided to the learner should change.

What are competences?

Basically, we can cluster four fields of competences:

1. Domain specific competences (e.g. related to a professional (action) field)
2. Social,
3. Personal and
4. Organisational competences.





Communication, teamwork, service-mindedness, intercultural and diversity management, autonomy, flexibility, creativity and problem solving can be assigned to social, personal and organisational competences.

Competence development is a process which is highly dependent on the competence itself, the potentials (stages) of the learners and, as stated above, also on the external factors such as context and quality expectations.

The concept of competences

Competences as defined by various European bodies, as well as by educational experts throughout and beyond Europe, consist of three interrelated ingredients:

- ◆ Knowledge (cognition)
- ◆ Skills (capabilities and the overt behavioural repertoire) and
- ◆ Attitudes (emotions and values).

Competences consist of a combination of cognitive, behavioural and affective elements required for effective performance of a real-world task or activity. A competence is defined as the holistic synthesis of these components.

If we see it this way it may be explained as the (inner) potential of a person to tackle a task.

From another (an external) perspective a competence may again be divided into three aspects. A competent person is able to:

- ◆ demonstrate behaviour
- ◆ in a specific context and
- ◆ at an adequate level of quality.

Eventually the context also becomes a crucial factor since it determines the environment in which the individual has to perform – and it is certainly a different matter to solve an exercise or to engage in role play or to tackle a challenge in real life. At the same time, this critical element of contextualisation brings in the quality aspect.

Competence taxonomies:

The increasing level of control (management) over a particular competence can also be called a 'competence level'. This implies that a 'competence' is a dynamic concept – competences grow while learning. The question on how to measure and document different competence levels is as old as it is complex.



It has probably challenged generations of educationalists on practical, administrative and political levels; in formal education but also in professional development domains, such as in Human Resources.

The problem in measuring competences is not only a certain ambiguity in the term 'competence', caused for instance by different connotations in different languages, but also by different cultural views on competence and learning theory.

Additional complexity comes in as competences are – unlike (school) subjects – always dependent on their contexts. Teamwork competences are (among others) dependent on the team composition and the task; leadership competences are dependent on the group and the environment in which it is practiced and teaching competences relate to the learning environment, the students and their familiarity with the learning schemes – among many other contextual aspects.

In order to operationalize competences, one needs certain reference points against which competences can be described.

Taxonomies are such reference systems. They are the major instruments to classify, and later to measure and document competence levels. One of the best-known taxonomies was developed by Benjamin Bloom in 1956 as Taxonomy of Learning Objectives. He differentiates 3 main areas:

- ◆ Taxonomy for the area of cognitive behaviour
- ◆ Taxonomy for the area of affective behaviour
- ◆ Taxonomy for the area of psycho-motor behaviour

Assessment and Validation of Competences

Validation refers to the process of collecting validity evidence to evaluate the appropriateness of the interpretations, uses, and decisions based on assessment results.

Validation of informal and non-formal learning is one of the major educational initiatives in Europe. It has been developed since 2002 and comes with a number of very powerful instruments like the EQF, ECVET and EUROPASS which have been promoted in the European Educational field. The main purpose is to make skills and competences of the individuals visible, transparent and transferable and with it to contribute to European mobility and cohesion.

The year 2018 marked the official European introduction of validation of informal and non-formal learning in political and administrative structures in all European member states.

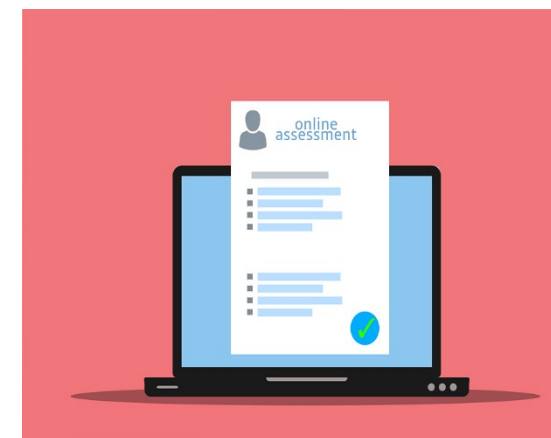


Image Source: Pixabv



Up to now, however, validation of competences is still unknown territory to the vast majority of (adult) educators in Europe.

In the following, some already tested competence frameworks for the validation of competences and assessment tools/methods are briefly described. Which method is suitable for which application scenario has to be decided on the basis of the respective situation (objectives, format, etc.).

Assessment of competences

The theoretically and empirically adequate assessment of competences in educational settings is a challenging endeavour that is often underestimated. Assessment has moved beyond the knowledge domain, towards more complex assessment of skills in authentic contexts.

There are different types of assessment:

- ◆ Summative assessment (*assessment of learning*): Have the learners achieved certain educational standards? Can we account for the decisions made for them?
- ◆ Formative assessment (*assessment for learning*): Does the assessment provide meaningful feedback of learning? How does the assessment support the on-going learning process?
- ◆ Decision function and the learning function in one approach (*assessment as learning*): Assessments are seen as an integral approach by looking at the design of full assessment programmes.

Exemplary assessment methods of summative and formative assessment are outlined below.

Assessment of Learning

“In any method of assessment, we can make a distinction in the stimulus format and the response format. The stimulus format is the kind of task one gives to the person being assessed. A stimulus might be asking for a fact or it might be a rich scenario” (van der Vleuten et al. 2017, pp. 609). So, there are lots of assessment methods resulting from these combinations.

With reference to the three dimensions (knowledge, skills, attitudes) of competences, which have already been listed in the concept of competences, different assessment areas can be differentiated. If we now also consider the different competence levels of each dimension, there are again small differentiated areas that can be assessed and classified. At the knowledge level, for example, written or computer-based tests can be used to check facts. The higher the competence level, the more complex the assessment stimulus often becomes. These can be cases, quizzes, problems or scenarios. Higher-order cognitive skills are assessed, in which reasoning and application of knowledge is required. Other examples are essays, oral assessments where learners present cases or longer reports on project work or research projects.



In the skills dimension, performance in application situations is assessed. This can be done by observation in (re-enacted) real-life situations or by using recorded activities. Generally speaking, the higher the level of learning, the less standardised the assessment methods. Non-standard assessment, which directly assesses performance in work environments (the stimulus format), relies entirely on the professional judgement of assessors who have observed the learner. This is usually captured through holistic assessments using generic rating scales, questionnaires or narrative commentary (the response format). As soon as holistic assessments are used, bias occurs. In unstandardised assessment, formative and summative functions are typically combined, and feedback is given to the learner. The way feedback is given and received really determines the value and the quality of the assessment.

The attitude dimension is generally more open, as it is a very personal level that can often only be assessed through self-reflection.

One very consistent finding is that competence is specific and not generic. Whatever is being measured and whatever method it is assessed with, competence and resulting performance are contextually bound. Many in-house assessments in educational practice suffer from a lack of quality.

Assessment for Learning

From a conceptual point of view, the close link between assessment and learning invites us to consider assessment as part of the teaching arrangement and as part of the learning process. Assessment as an educational design issue has a rich influence on the design of learning scenarios.

Formative assessments might be integrated in all learning situations and enhance all the teacher and learner activities that provide information that can be used to adjust learning. The table below shows strategies for formative assessment.

Strategies to enhance formative assessment (C. van der Vleuten et al. 2017, pp. 618)

Strategies	Role in formative assessment
Providing Feed up, Feedback and Feed forward	Closing the gap between what learners already know and what they have to know by providing information to the learner that changes or stimulates behaviour.
Rich questioning	Provides insight into learners' thinking to enable timely interventions, to refute misconceptions and promote deeper learning.
Assessment dialogues	Effective for clarifying learning objectives and the establishment of criteria for success by scaffolding information. Helpful in gathering information about students' understanding and to ensure that students achieve the learning objectives.
Reflective lessons	A well-considered combination of several assessments in one lesson to gather information about the development of the learners to choose the next step of instruction.
Self-assessment	Provides the learner with information about his or her progression by relating products to learning objectives.



Peer assessment	The involvement of peer learners in the assessment of a learner's progression stimulates the understanding of learning objectives and criteria.
Rubrics	By describing the levels of attainment for different criteria, transparency is provided to communicate about criteria and expectations.
Formative use of summative assessment	Evaluating summative assessments with students provides insight into what learners know and what they not yet know.

Of the formative assessment methods presented here, feedback is the most effective (in terms of formative character).

Self-assessment is not a new technique, but a way of enhancing learners' role as active participants in their own learning. It is often used for formative assessment to encourage reflection on one's own learning processes and outcomes.

The other methods can also be targeted according to situations.

Level5 as a competence reference system

One of the best-known European competence frameworks is the EQF. Its aim is to make the skills and competences of individuals visible, transparent and transferable, thus contributing to European mobility and cohesion. Find out more at <https://europa.eu/europass/en/european-qualifications-framework-efq>.

Besides well-known taxonomies such as Bloom's or the EQF (European Qualification Framework), there is also the LEVEL5 taxonomy. Bloom's taxonomy focuses more on "learning", whereas the EQF has qualification as its purpose and intention. LEVEL5 was designed to facilitate and arrange learning in a competence-oriented way in all kinds of possible learning settings, be they formal, non-formal or informal (but not 'unintentional'). It has been developed and tested since 2005 by experts from the Cooperative of Blended Learning Institutions (blinc eG). It has been applied in more than 40 European projects and 200 micro-learning projects in different educational sectors with a focus on needs-based, constructivist learning. Since 2013, the LEVEL5 approach and associated tools have been widely disseminated through our European REVEAL network.

The LEVEL5 taxonomy consists of Knowledge, Skills (capabilities) and Attitudes (emotions/values) on 5 levels.

In addition, you will find a PDF file with the Level5 Taxonomy in the attached download area. Please note that the file is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. The authors are blinc/REVEAL e.V. 2021. This licence also applies to all other works from this unit that are related to Level5.



LEVEL5 Taxonomy (Simplified)

LEVEL	KNOWLEDGE	SKILLS Capabilities	ATTITUDES Emotions/Values
5	Know where else...	Transferring	Incorporation
4	Know when...	Discovering	Commitment
3	Know how...	Deciding	Appreciation
2	Know why...	Imitating	Perspective taking
1	Know-that...	Perceiving	Neutral



Reference system for Digital Literacy

KNOWLEDGE		SKILLS		ATTITUDES	
Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
Knowing where else (strategic transfer)	Knowing how to transfer digitalisation concepts into other contexts. Knowing how to help other people act successfully in different digitalisation structures in this respect.	Developing, constructing, transferring	Being able to transfer digitalisation strategies into new professional and personal contexts. Actively planning and creating new digitally based activities.	Incorporation	Having internalised digitalisation as a personal and professional key competence and the respective mindset. Being an inspiration for others in their digitalisation activities.
Knowing when (implicit understanding)	Knowing when (in which situation and to which extent) to apply suitable digital instruments and tools. To know how to analyse and evaluate digitalisation also critically	Discovering acting independently	Deliberately searching for and selecting appropriate digital techniques and instruments for the own professional and personal field. Discovering new digital tools and approaches for the own context and professional domain.	Self-regulation, Commitment	Being determined and pro-active in using and improving digital literacy in the own environment. Finding it important to be creative in this respect.
Knowing how	Theoretically knowing different approaches, techniques and instruments related to: <ul style="list-style-type: none"> • ICT literacy; • Internet literacy • Information literacy • Media literacy 	Deciding/ selecting	Taking part in relevant digital application activities as they are offered by others in safe (undisturbed) contexts. Choosing singular digital tools and activities from a given (known) portfolio	Motivation/ appreciation	Valuing digitalisation in general. Being motivated to develop own digital literacy.
Knowing why (distant understanding)	Having basic understanding on relevant aspects of digitalisation related to digital (ICT) devices, Internet, social and digital media and information technology	Using, imitating	Occasionally taking part in non structured activities related to digital tools, instruments and digitalisation. Operate computers and digital devices or to use general purpose software and Internet services.	Perspective taking	Being curious and interested in certain aspects related to digital tools and digitalisation
Knowing what	Knowing that digitalisation is based on <u>ICT</u> .	Perceiving	Perceiving and recognising digital tools without taking actions or reflecting on them	Self-orientation	Perceiving digital tools without relating it to oneself.

Example of a Personalised Learning Pathway based on planned CPD

KNOWLEDGE		SKILLS		ATTITUDES	
Level Titles	Level description	Level Titles	Level description	Level Titles	Level description
Knowing where else (strategic transfer)	Knowing how to transfer digitalisation concepts into other contexts. Knowing how to help other people act successfully in different digitalisation structures in this respect.	Developing, constructing, transferring	Being able to transfer digitalisation strategies into new professional and personal contexts. Actively planning and creating new digitally based activities.	Incorporation	Having internalised digitalisation as a personal and professional key competence and the respective mindset. Being an inspiration for others in their digitalisation activities.
Knowing (independent)	Knowing which situation and to which digital instruments and how to use and evaluate them critically	Discovering acting independently	Discovering new digital tools and approaches for the own context and professional domain.	regulation, Commitment	Being determined and pro-active in using and improving digital literacy in the own environment. Finding it important to be creative in this respect.
Theoretical	Knowing different approaches, and instruments related to:	Deciding/ selecting	Taking the... contexts. One... from a given (knowing) p...		Being... digital literacy.
Knowing why	Having basic understanding on relevant digitalisation related to digital social and digital media and information technology		Occasionally taking part in non-structured activities related to digital tools, instruments, computers and digital purpose software and applications		Being curious and interested in certain aspects related to digital tools and digitalisation
Knowing what	Knowing that digitalisation is based on ICT.	Perceiving	Knowing and recognising digital tools without taking actions or reflecting on them	Self-orientation	Perceiving digital tools without relating it to oneself.



References:

- ◆ Chitnis, L. (11 October 2019). Competency-based assessments: Benefits and types that you must know. *Training Journal*. <https://www.trainingjournal.com/articles/features/competency-based-assessments-benefits-and-types-you-must-know> (Latest access 17th September)
- ◆ Cook, D.A., & Hatala, R. (2016). Validation of educational assessments: a primer for simulation and beyond. *Adv Simul*, (1)31, <https://doi.org/10.1186/s41077-016-0033-y>
- ◆ Leutner, D., Fleischer, J., Grünkorn, J., & Klieme, E. (2017). *Competence Assessment in Education: An Introduction*. 10.1007/978-3-319-50030-0_1.
- ◆ Schoonenboom, J., Tattersall, C., Miao, Y., Stefanov, K., & Aleksieva-Petrova, A. (2008). *The Role of Competence Assessment in the Different Stages of Competence Development*. 10.1007/978-3-540-74155-8_17.
- ◆ van der Vleuten, C., Sluijsmans, D., & Joosten-ten Brinke, D. (2017). Competence Assessment as Learner Support in Education. In: Mulder, M. (eds.) *Competence-based Vocational and Professional Education. Technical and Vocational Education and Training: Issues, Concerns and Prospects* [vol. 23]. Springer. https://doi.org/10.1007/978-3-319-41713-4_28
- ◆ van Lakerveld, J., Scholze, T., & Tilkin, G. (2019). *Competence Oriented Learning and Validation. Towards professionalisation and quality in informal, non-formal and formal learning*. https://reveal-eu.org/wp-content/uploads/2019/12/IO3_REVEAL_Learning_System-.pdf