



Innovative VET Scalable Micro-Credential Solutions that Engage, Explore, Explain, Elaborate and Evaluate

D5.2

Guidelines for Question Bank Practices in Micro-Courses Leading to Micro-Credentials through the Application of Competence Units

The purpose and application of question banks in work-based practices.

- Guideline for the usage of the EN1090 question bank (IzV, SVDT)
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<https://www.stimuli2.no/project/five>

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Assessment & Work-Based Practices



Applying Question Banks

*A Harmonized
Framework for
delivery of VET and
Higher VET*



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*Guideline for Usage of Question Banks in
Initial- and Continuing VET and Higher VET*



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Frameworks for Usage of Question Banks in Initial- and Continuing VET

A question bank is a collection of questions used for assessments, exams, quizzes or practice tests. It is commonly used in education, training, and certification to help organize and manage large sets of questions for various subjects or skill areas.

Key features of question banks include

- They contain a variety of questions like short answers, essay questions, multiple choice questions or true/false
- They are organized by categories like subject and topic, learning objectives or learning outcomes, level of difficulty, or type of questions
- They are reusable across various tests and may be adapted over time
- They may be used in automated systems such as learning management system platforms to generate randomized quizzes or exams, ensuring variety.

Question banks may be used in schools and universities providing exams and practice tests, cooperate training programs focusing on skills testing, and in Learning Management Systems. Question banks and sample papers help students familiarize themselves with the test format and evaluate their strengths and areas for improvement. Question banks play a vital role in curriculum design and lesson planning, providing a repository of key questions that reflect essential curriculum content and knowledge learners are expected to master.



Why use Question Banks?

Question banks serve as a centralized tool for educators to organize and reuse questions across multiple assessments, including quizzes, tests, and exams. Tests are valuable tools for measuring students' knowledge and skill levels and can be used in both formative and summative assessments.

Question banks simplify the creation and management of these assessments by allowing instructors to reuse well-crafted questions. Instead of developing new items for each test, educators can efficiently build, adjust, and maintain assessments over time using the organized content within the question bank.

What is Assessment and Recognition of Prior Learning for Accreditation?

In the European context, Recognition of Prior Learning (RPL) is closely linked to the concept of 'validation of non-formal and informal learning'. Both processes allow individuals to have their prior learning assessed and formally recognized, either fully or partially, against national or sectoral qualification standards. These mechanisms are designed to acknowledge and accredit the knowledge, skills, and competencies that learners have acquired through various experiences.

RPL can support a learner's progression within lifelong learning pathways or enhance career development opportunities in the workforce. This perspective is reinforced by the European Centre for the Development of Vocational Training (Cedefop), which states:



RPL is a process that identifies, assesses and acknowledge the knowledge, skills and competencies individuals have acquired through formal, non-formal or informal learning, enabling them to advance in VET and employment pathways.



«Validating non formal and in formal learning is increasingly seen as a way of improving lifelong and life wide learning. More European countries are emphasizing the importance of making visible and valuing learning that takes place outside formal education and training institutions, for example at work, in leisure time activities and at home.» Cedeforp (p13, 2008)

The Council of the European Union, in its Recommendation of 20 December 2012, emphasized the importance of validating non-formal and informal learning as a means to support young adults in accessing employment, stating:

'The validation of learning outcomes, namely knowledge, skills and competences acquired through non-formal and informal learning, can play an important role in enhancing employability and mobility, as well as increasing motivation for lifelong learning, particularly in the case of the socio-economically disadvantaged or the low-qualified'. CEU (point 1, 2012)

The Council recommended that by 2018, member states should establish mechanisms enabling individuals to have their knowledge, skills, and competences—gained through non-formal and informal learning—formally validated, with the possibility of obtaining full or partial qualifications where appropriate.

Thus, recognition of prior learning is a process that formally acknowledges an individual's knowledge, skills, and competences acquired through non-formal learning (such as structured activities in education, training, or work) or informal learning (gained through everyday experiences in work, leisure, or family life). RPL also serves as an important pathway for refugees and asylum seekers to receive recognition for previously earned qualifications, even when formal documentation is unavailable due to conflict, displacement, or other socio-political challenges in their country of origin.

What is the purpose of RPL?

The assessment and recognition of prior learning acknowledges that valuable learning takes place in non-formal and informal settings. This learning can be validated for a specific purpose or recognized as meeting the learning outcomes of a particular award level, potentially contributing toward a formal qualification.

Thus, Recognition of Prior Learning (RPL) offers a means to retrospectively assess an individual's level and depth of knowledge, skills, and competencies for the purpose of validation or formal qualification. The core principle of RPL is to provide individuals with a structured pathway to have their prior learning formally acknowledged, enabling them to:

- Secure employment opportunities

- Advance in the workplace through promotion
- Identify and pursue up-skilling opportunities
- Transition into new job roles or career paths
- Meet regulatory or professional requirements in the workplace
- Access further education and training programs
- Receive credit for components of a course
- Gain advanced entry into an educational program
- Obtain certification for part of a qualification or award
- Achieve full certification for a complete qualification

Thus, RPL is a structured process that identifies, assesses, and formally acknowledges the knowledge, skills, and competencies individuals have acquired through previous learning—whether formal, non-formal, or informal. RPL serves a wide range of purposes, including enabling access to education and training, supporting career advancement, facilitating transitions between jobs or sectors, and meeting regulatory or professional standards.

By assessing prior learning against clearly defined learning outcomes, RPL ensures that recognition is transparent, consistent and aligned with established qualification standards.



General RPL summary including various purposes and processes

First stage

Reviewing Learning experiences **to establish**

- Strength
- Weaknesses
- Personal goals
- Learning styles
- Prior learning

and provide careers and educational guidance

Second stage

Identify training and prior qualifications

Third stage

State achievements as competencies, **which corresponds to**

- Required skills and knowledge, to support job and career
- Course entry requirements, for entry to VET and Higher VET
- Specific course learning outcomes, to display possible exemptions
- Award standards, to document qualifications

Fourth stage

Assemble evidence of relevant achievements, **as specified by**

- Employer, for recruitment to jobs
- Admissions and assessors, for entry to training
- Award specifications, to document the qualifications achieved

Fifth stage

Organizing the evidence as profiles, CVs or portfolios, and take competence tests, **as specified by**

- Employer, for recruitment to jobs
- Admissions and assessors, for entry to training
- Award specifications, to document the qualifications achieved

Sixth stage

Present evidence in the required format, **for evaluation by**

- Employer, for recruitment to jobs
- Admissions, for entry to training
- Assessors, to display possible exemptions
- Awarding body, to specify the qualification standards

Seventh stage

Possible results are

- Access to job career
- Exemptions for taking specified modules
- Advanced entry with credits
- Partial qualifications
- Full qualifications
- Not successful, whereby it is necessary to fill the gaps during the next attempt

Potential beneficiaries of RPL include individuals working in the informal economy seeking formal recognition of their competencies, employees requiring updated qualifications, unemployed or retired adults aiming to up- or re-skill, and migrant workers needing recognition of their qualifications in a new country.



The process involves evaluating an individual's prior learning against specific learning outcomes or qualification standards. This can lead to full or partial qualifications, credits toward a course, advanced standing in education programs, or certification for workplace roles. RPL is particularly valuable in promoting lifelong learning, supporting workforce mobility, and providing recognition for those with substantial experience but limited formal credentials, such as adult learners, career changers, or displaced individuals including refugees.

RPL provides a range of different purposes and processes that may be illustrated like this for the profiles of potential beneficiaries:

- Workers in the informal economy
- Employed in sectors where the qualifications requirements have changed
- Craftspersons
- Students that are working
- Unemployed
- Economically inactive
- Individuals wishing to work after retirement
- Migrant workers that need get their qualifications recognized

The general RPL process

1. **Awareness and information**, to provide targeted and easily accessible information on RPL, and existing opportunities, where to turn to, etc.
2. **Counseling and facilitation**,
 - To guide the applicant about RPL procedures, requirements and their suitability for qualifications
 - Applicants submits the application and evidences and portfolios
 - Close the gap with training
3. **Assessment and certification**,
 - Assessors interview the applicant, and reviews and assesses the evidences submitted
 - If applicable, the assessor will guide the applicant to prepare for the final assessment
 - If applicable, the applicant will be assessed against the standards for the selected qualifications
 - Applicants are informed about shortcomings, including the gaps. They are assisted in overcoming these through training, mentoring and other types of support. Mechanisms should be in place to appeal decisions.
4. **Applicant is successful** and obtains a certificate, credits or units.

RPL is fundamentally based on the demonstration of learning outcomes—what an individual knows, understands, and can do—regardless of how or where that learning was acquired.



The Recognition of Prior Learning Process (RPL)

The RPL process typically involves several key stages, including guidance and advisory support, collection of evidence, assessment of learning, and formal accreditation. However, the exact structure can vary depending on national legislation, the policies of the provider, and the specific needs of the individual. Within the European context, the Council of the European Union (2012) outlines four core stages in the validation of non-formal and informal learning, as follows:

- **Identification** of the learning outcomes an individual has gained through non-formal and informal learning.
- **Documentation** of these learning outcomes to create a structured record of the individual's achievements.
- **Assessment** of the documented learning in relation to established qualification standards.
- **Certification** of the assessment results, which may take the form of a full qualification, credits toward a qualification, or another appropriate form of formal recognition.

Each stage has its own specific requirements and typically follows a sequential order. Additional phases may also be included, such as '**guidance and advice**' before the process begins, '**preparatory teaching**' prior to the assessment stage, and '**tracking or follow-up**' after certification is awarded. The Recognition of Prior Learning (RPL) process may differ based on several factors, including:

- The purpose of the recognition and the organization delivering it
- The motivations of both the individual and the sponsoring organization
- The setting in which it takes place—whether in an educational institution or the workplace
- Whether the provider is a public or private entity
- The availability of funding, resources, and applicable fees

Facilitating RPL

In general, educational institutions facilitate the Recognition of Prior Learning (RPL) process by advising and supporting individuals in achieving recognition or formal awards based on established learning outcomes, qualification standards, and award criteria. Employers may also implement RPL processes aligned with their operational needs and internal standards, offering company-specific recognition. Additionally, private agencies may deliver RPL services, often commissioned by employers or funded through competitive grants provided by the state or local authorities.

The RPL process is typically supported by teachers who are subject matter and assessment experts, as well as by counsellors, external assessors, or a combination of these roles. The process may involve the following activities:

- Providing clear, relevant, and accessible information to the individual
- Meeting with the individual to offer tailored guidance and advice
- Helping the individual identify their existing skills, knowledge, and competencies
- Explaining the criteria for evidence collection and what constitutes valid, relevant evidence
- Supporting the individual in preparing materials for assessment
- Conducting the assessment through examination, demonstration, or portfolio review
- Accrediting the individual's demonstrated learning
- Advising on possible next steps in education, training, or employment

The RPL process can be delivered through one-to-one sessions, face-to-face group settings, or, in some cases, online platforms. Active participation from the individual is essential; they must be reflective, provide accurate and relevant evidence, and be open to having their prior learning formally assessed.



The RPL process can be structured into three main phases, encompassing three key stages, as outlined below:

Stages	RPL process
Advice (Phase 1)	The applicant receives information about the RPL policy, procedures, processes, and assessment criteria, along with guidance on the available options. <i>Addresses the knowledge, skills- and competence levels.</i>
Preparation and assessment (Phase 2)	This process involves two key stages. - In the first stage, the applicant reflects on their prior training, non-formal learning, and experiential learning to identify the knowledge and skills they have acquired, referencing a relevant qualification standard or set of learning outcomes. - In the second stage, the applicant gathers and presents appropriate evidence to demonstrate how their competencies align with the identified standards or outcomes. In some cases, applicants may also be required to complete competence assessments or tests. <i>Identify the standards of a full or partial qualification and determine the types of evidence required to demonstrate achievement of the learning outcomes.</i> <i>Collect relevant evidence and, where applicable, complete competence tests to verify the required skills and knowledge.</i>
Certification (Phase 3)	The final phase is the assessment stage, during which the submitted evidence is evaluated by a subject-matter expert and, if required, a competence test may be conducted. If the applicant meets the relevant standards or learning outcomes, a certificate or partial qualification may be awarded. <i>Assessment results for certification and/or accreditation.</i>

Recognition of Prior Learning (RPL) is a process used to assess an individual's knowledge, skills, and competencies against established standards, learning outcomes, and qualification levels. As Murphy (2008, p.9) explains, *"RPL is essentially a judgment on past learning achieved through formal curricula, private study, or work activities."* The effective use of RPL must be underpinned by appropriate quality assurance procedures at the national, sectoral or institutional level. π

The implementation of RPL must be conducted with the same level of professional competency and rigor as the formal teaching and learning processes associated with the relevant subject and qualification level. Teachers or trainers involved in the RPL process must hold relevant qualifications in the subject area and be properly trained in RPL assessment methods.



Designing Effective Multiple-Choice Quiz Questions to Assess Students' Prior Learning

Many instructors view multiple-choice questions as tools primarily for testing factual recall. However, when well-designed, they can also assess higher-order thinking skills and actively engage students in the learning process. Unlike traditional exam-style questions, effective multiple-choice items can promote deeper understanding and support active learning

Question type	Purpose
Recall questions	These types of questions prompt students to recall facts, concepts, or techniques relevant to the lesson. They are commonly used to check whether students have completed assigned readings, retained key information from previous classes, or memorized essential facts. While useful for assessing basic understanding, they rarely stimulate discussion or require higher-order thinking skills.
Conceptual understanding	These questions extend beyond simple recall and are designed to assess students' understanding of key concepts. The answer choices often reflect common misconceptions, making them valuable tools for identifying and addressing misunderstandings. Examples of conceptual understanding questions include asking students to classify examples, match characteristics with concepts, choose the most accurate explanation of a concept, or translate between different representations of an idea.
Application questions	These questions require students to apply their knowledge and understanding to specific situations or contexts. Application questions typically ask students to make decisions or choices within a given scenario, relate course content to real-world situations, implement relevant procedures or techniques, or predict outcomes, whether of experiments or how peers might respond to a follow-up question.
Critical thinking questions	These questions operate at the higher levels of Bloom's Taxonomy, requiring students to analyze relationships among multiple concepts or make evaluations based on specific criteria. They are often framed as "one-best-answer" questions, where several answer choices may seem valid, but only one is the most appropriate, encouraging deeper analysis and critical thinking. Students are asked to choose the single best answer from a set of plausible options. While such questions may not be ideal for formal examinations, since the reasoning behind students' choices is often more insightful than the answers themselves. They are highly effective for prompting discussion. These questions encourage students to explain and defend their thinking, making them valuable tools for active learning and critical engagement.



Question type	Purpose
Student perspective questions	These questions invite students to express their opinions or share personal experiences. While there are no right or wrong answers, they serve to highlight the range of perspectives within the class. This can deepen understanding for both instructors and students, fostering a more inclusive and reflective learning environment. These questions often lead to rich and thoughtful discussions, particularly when exploring ethical, legal, or moral issues. They also support students in linking personal experiences to more abstract course content. Anonymity, offered by various response tools, can be a key factor in encouraging honest and open participation in these types of discussions.
Confidence level questions	Asking students a content-related question followed by a prompt to rate their confidence in their answer (e.g., high, medium, or low) can significantly enhance the insights gained about their learning. This approach not only provides more meaningful feedback to instructors but also encourages metacognition, thus helping students reflect on and become more aware of their own learning processes. Instructors can also use predictive confidence questions by asking students how confident they are in their ability to answer a question or complete a task they have not yet attempted.
Monitoring questions	These questions are intended to give instructors insight into how students are engaging with the learning process throughout the course. For example, an instructor might ask—one week before a written assignment is due—whether students have completed a rough draft, allowing them to gauge progress and provide timely support if needed. Asking students how long they spent completing a recently submitted assignment can offer valuable insights into the assignment's level of difficulty. Instructors can also use questions to check whether students recall important advice or course policies introduced in the syllabus on the first day of class. Additionally, questions commonly used in end-of-semester course evaluations can serve as effective tools for gathering feedback at the midpoint of the term, allowing for timely adjustments.
Classroom experiments	Classroom response systems can also be used to gather data from students for in-class experiments, particularly in the social sciences. The data generated during these activities can help illustrate key concepts related to social behavior. By enabling real-time data collection and analysis, these systems add immediacy and relevance to the learning experience, making abstract ideas more tangible and engaging.

