Manual for Validation and Recognition of Prior Learning

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Contents

What is Validation and Recognition of Prior Learning?

In a life-long perspective, non-formal and informal learning may count for more than formal education and training when speaking of employability and career development. This is often called prior learning and covers learning through paid or unpaid work, in-company training, leisure activities and other things that add to or replace formal education and training.

Validation of non-formal and informal learning (VNIL) is the process where former learning is "made visible" and transparent for an assessment process. Recognition of Prior Learning (RPL) is a process for proving competence where individuals may apply for an assessment and validation of their formal, non-formal, and informal learning. Assessment is based on a portfolio showing an individual's competence in a specific field.

There must be an authorized body confirming that an individual has acquired learning outcomes measured against a standard. The assessments need to be discretionary and holistic as the competences may not be equal to descriptions in the standard, but still equivalent.

VNIL and RPL may be used for up-skilling, re-skilling, or mobility reasons. They may also serve as tools for intake or inclusion into (parts of) education and training programs.

You can read more about recognition and validation here.

What do VNIL and RPL mean in a STEMSOFT context?

STEMSOFT project's training program address the development of 21st century SOFT SKILLS and TRANSVERSAL competencies needed in the labour market by STEM (Science, Technology, Engineering and Mathematics) candidates through open and innovative practices to enhance their employability.

The partnership in STEMSOFT represents European branch organisations, companies, schools and training organisations in six European countries.

All training programs are presented at 3 levels: **Basic, Intermediate, Advanced**, which are similar to EQF levels 4,5,6. These levels are described in an EQF/ECVET (**E**uropean **Q**ualifications **F**ramework / **E**uropean **C**redit system for **V**ocational **E**ducation and **T**raining) format:

- **Basic Level (**EQF 4)

A range of theoretical and practical skills required to generate solutions to specific problems in a field of or study.

- **Intermediate Level (**EQF 5)

A range of theoretical and practical skills required to develop creative solutions to abstract problems in a field of work or study.

- **Advance Level (**EQF 6)

Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study.

The target groups are:

1. **Migrants** with a STEM background who are unemployed or underemployed.

2. **Mobile workers** seeking employment opportunities in another country or region.

3. **NEETs** (**N**ot in **E**ducation, **E**mployment, or **T**raining); both male and female.

4. **Undergraduates or graduates with a STEM background** who are finding it hard to get a STEM job due to ethnicity, disability or gender.

5. **People in career transitions** (people without a formal STEM background wanting to move to a STEM field as an alternative career) facilitating permeability and flexible learning and training pathways.

The training programs include following Modules/Learning Outcomes:

Technical skills
1. Core literacy functions
2. Digital literacy
Metacognitive skills
3. The ability to learn independently
4. High-level thinking
Interpersonal skills
5. Teamwork
6. Empathy and compassion
Intrapersonal skills
7. Self-management and self-discipline
8. Perseverance and resilience
Citizenship skills
9. European citizenship values
10. Cultural understanding and respect
Entrepreneurial skills
11. Decision-making
12. Planning and management
13. Ideas and opportunities
Problem-solving skills
14. Negotiation techniques
15. Problem identification and solving

Through the Skillsbank[1] system, STEMSOFT offers an online possibility for VNIL and RPL in the STEM field as well as a self-assessment qualification criteria.

For a full recognition of prior learning in a trade, as a skilled worker or master of skilled art certificate, we recommend that individuals contact local or national authorities and follow their provisions and existing systems. In this way, we act in accordance with the European guidelines for validating non-formal and informal learning (CEDEFOP 2015, pp 38-39).

> "Web-based platforms that allow for recognition and assessment of specific skills require careful consideration and need to be compared to existing systems of validation to promote adequate quality assurance and allow for rationalisation of efforts."

STEMSOFT offers a training program with open online resources (MOOCs). These do not include the presence of assigned teachers, trainers or supervisors that can help individuals with inclusion to or shortening of a program. Interested individuals may proceed to a training program or a specific module in one of the programs based on the self-assessment procedure or one or more module diplomas.

In addition, STEMSOFT also offers access to OER (Open Education Resource(s)) these are additional training materials available in Skillsbank. See Skillsbank video introduction for more info.

If the STEMSOFT resources are used as part of formal training organized by VET providers, the organizers should follow local, national or trade specific provisions regarding RPL.

VNIL/RPL options in STEMSOFT

A self-assessment procedure resulting in an individual profile and a spider chart showing your self-assessed strengths and weaknesses compared to competence descriptions in the STEMSOFT qualification matrix.

Individual preparations

Prior to assessment and validation, you need to develop a portfolio. A portfolio is a purposeful collection of performed work that can document and demonstrate your competence in a targeted field. As the purpose is to visualise that your competence is equivalent to learning outcomes for a module or training program, you need to include some reflections on how your prior learning is in line with the learning outcomes. Your documentations do not need to be completely similar or cover all learning outcomes. Portfolios can include any documents, pictures, charts, videos, transcripts, interviews etc. In an VNIL/RPL context, portfolios will serve as showcasing for achievement of a certificate.

Step one: Clarify your purpose.

Before you start documentation for VNIL/ RPL you need to know how to conduct the RPL. It may also be a good idea to discuss your purpose with a friend or a colleague. Your company might be interested in getting a validation and recognition of your competences as part of a company strategy. Or maybe you are planning to move to work in another company or even another country and thus want a recognition and validation for mobility reasons.

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[1] Skillsbank is a multilingual database covering qualification definitions.

If you feel unsure about your competences, you may proceed to the STEMSOFT training program.

Step two: Identification and mapping of competences

- What kind of work tasks, projects or other contributions to your company, branch organization, customers, providers, or private life can you refer to?

- What kind of resources or training may have contributed to your upskilling? (Formal, informal or non-formal) What about Internet resources?

Start collecting evidence for your portfolio. If needed, you may use Skillsbank for storage of your documentation.

Step three: Documentation

In STEMSOFT, validation, assessment and recognition of informal and unformal learning are based on documentation. Any form of media documentation is possible, but we recommend formats suitable for documenting practical and innovative activities as well as interactions with colleagues, customers and/or providers. Such formats may be pictures, videos, websites, presentations, or even virtual reality (VR). Written formats may be used when suitable, for instance business or project plans, strategies, offers, tenders etc.
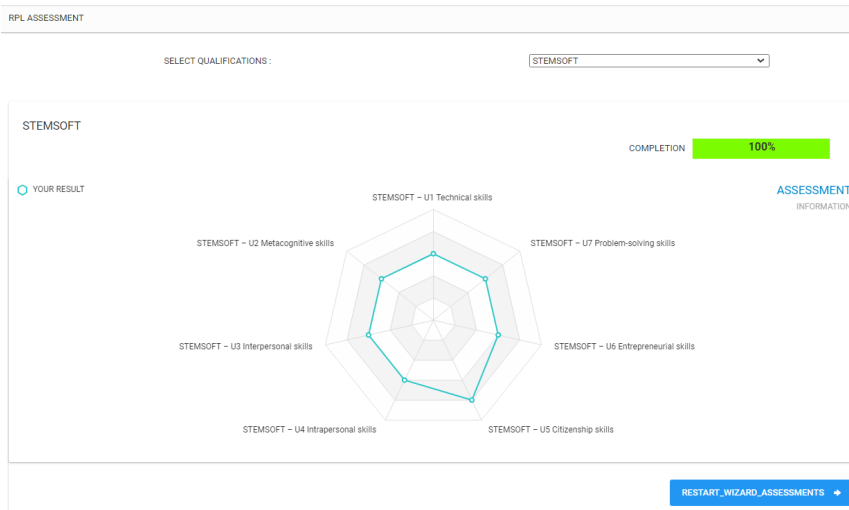
The portfolio and all documentation may be in your own language, the portfolio cover should be in English.

Together, this documentation should demonstrate your level of competence for the applicable certificate. Use the learning outcomes as a backdrop, not a framework for documentation. Your informal and unformal learning will be recognized and validated as equivalent to formal learning (like the training programs in STEMSOFT or offers through VET providers using STEMSOFT resources).

How to conduct the recognition of prior learning in STEMSOFT?

For the full overview of Skillsbank have a look at the video introduction
https://skillstools.eu/stemsoft-output.

Here's what you need to do in STEMSOFT:

For recognition and validation of your competences, the first step is **to register as a user and to set up a personal account in Skillsbank** (www.skillsbank.eu). With this personal account you can store all your portfolio components (documents, videos, pictures, etc.) as a basis for your application or a CV, or you can wait until you have designed your portfolio and then upload it for assessment and recognition.

1) Choose the STEMSOFT RPL option.

2) Choose the **self-assessment** option if you want to start there to clarify your level and your competence profile.

3) **Gather all your documentation** into one portfolio document in pdf-format. You may convert your file to pdf through your editor (Microsoft Word e.g.). Alternatively, you can use https://www.freepdfconvert.com/. We advise you to use links to external videos or other documentations (on YouTube, websites, etc.) along with pictures and descriptions in your portfolio file. All external documents must be open online.

4) **Upload your portfolio** according to the certificate you apply for. Make sure you present a list of all content in your portfolio and write **a short statement** as part of your portfolio, in which you tell how your documentations are linked together as a picture of your competences (help assessors with the puzzle)

References

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Annex: Self-assessment questions:

Core literacy functions

Is able to exercise core literary functions such as the reading of texts and the use of relevant documents, and expertly express oneself in writing.

Knows the core components of performing reading, writing, numeracy and ICT skills.   Uses reading, writing, numeracy and ICT skills in the daily operation

Has the necessary overview of relevant sources for information gathering and interpretationExplores, interprets and applies sources that is concerned with themes in the core subject areas

Gains insight into problems on the basis of situation descriptions

Undertakes literature searches and reviews using databases and other sources of information.

Stays updated on professional developments by means of newspapers, professional journals and other relevant sources

Knows how to structure professional documents   Produces text documents describing, explaining and reflecting the relevant subject area

Digital literacy

Is able to exploit software and information technology to accomplish complex work tasks.

Knows how to be safe in a digital environment   Protects own devices using appropriate anti-virus software etc.

Is aware of current legislation related to the protection of personal data

Initiates procedures to protect own personal data and privacy in a digital environment

Is familiar with, and uses, digital communication tools. Communicates effectively, collaborates and shares information through digital technologies.

Engages in citizenship through digital technologies.

Creates and manages a digital identity.

Act responsibly and with respect for others when engaging in digital communication tools.

Uses a wide range of features or options for a given software package.

Creatively uses different software packages to produce the desired result.

The ability to learn independently

Is able to independently identify and address learning and developmental needs to enhance own performance.

Has self-awareness of own skills, competences and weaknesses.　　　Reviews own performance as a colleague.

Knows how to learn from available opportunities.　　　Conducts self-assessment against standards for current position to identify learning needs.

Takes advantage of learning opportunities provided (e.g., courses, feedback from supervisor or peers).

Recognises the need for, and is able to, engage in independent life-long learning

Actively follows current developments in science and technology

Challenges stereotypes by actively working on changing one's perspective.

Knows when to seek out learning opportunities.　　　Requests additional feedback to clarify learning needs.

Seeks coaching in areas where techniques are rapidly evolving.

Continually acquires new knowledge and applies this to improve job performance.

Understands how to implement a self-directed development plan.　　　Gathers information from various sources to identify own strengths and weaknesses in current position.

Identifies and plans learning targeted to specific developmental needs in current position.

Monitors progress in meeting learning goals and updates the learning plan as needed.

High-level thinking

Is able to evaluate information, apply it, and synthesise it to create new knowledge.

Knows how to evaluate information relevant to the pending work tasks. Critically evaluates data sources for reliability.

Depends on their comprehensive experience to filter out irrelevant information for the given task

Understands how to synthesise available information.　　Seeks expertise to discern and compare information or clarify a problem.

Maximises the potential of available technology to identify relevant information.

Quickly processes large volumes of information discerning relevant and irrelevant information.

Knows how to apply synthesised information to create new knowledge relevant for work tasks. Uses available information and knowledge to create new information relevant for the current work task.

Uses new, creative approaches to create new knowledge.

Collaborates well with others to create new knowledge.

Makes informed judgements that include reflection on relevant social and ethical issues.

Teamwork

Is able to work in team with motivation, reliability, punctuality and sense of responsibility in a flexible manner.

Recognises the benefits of working well and effectively together with others.   Engages fairly and honestly with others, while showing consideration and respect.

Seeks assistance from others or other team members, and assist others when needed.

Shares all relevant information with others.

Understands when and how to proactively assist and involve others.   Initiates collaboration with others.

Assumes additional responsibilities to facilitate team goals.

Seeks input from others on matters that affect them.

Functions effectively in a national and international context, as an individual and as a member of a team

Cooperates well and effectively with engineers and other interdisciplinary actors

Knows the necessity of fostering teamwork.   Participates in, and respect decisions taken as a group.

Gives credit to, and acknowledges contributions of others.

Ensures that all group members have an opportunity to contribute to the team and to the realisation of the common goals.

Empathy and compassion

Is able to understand other people's needs and to take that into consideration when making decisions.

Understands the importance of showing empathy.   Understands the other person's situation, perceptions and feelings.

Communicates the empathic understanding back to the other person.

Understands the importance of showing compassion.   Shows compassion to team members who are in difficult situations.

Shows respect towards others who hold different ideas from their own

Adapts the current strategy based on the needs of others.

Understands the steps to take to develop emotional intelligence.   Compromises where necessary.

Deals with non-assertive behaviours that hinders the value-creating activities (for example destructive attitudes, aggressive behaviour and so on).

Self-management and self-discipline

Is able to work in a responsible manner with self- and time-management.

Is able to reflect in past experiences in order to improve own performance and complete tasks effectively.

Knows the principles of time management according to

SMART principles: Specific, Measurable, Accurate, Realistic, Timely   Applies time management principles to a project operation.

Organises their work independently.

Understands the importance of emotional self-control in the workplace.   Communicates rationally with others when there is a disagreement.

Sets temporarily aside personal wants in order to finish a task.

Re-addresses the situation in order to persevere when faced with difficulties, challenges or changes.

Knows how to seek opportunities for improvement.   Acknowledges areas where expectations about own performance or interpersonal interactions are not met.

Provides plausible reasons for the lack of success, which may or may not include self.

Positively accepts others' feedback.

Understands the importance of taking responsibility.   Takes personal responsibility for outcomes, even when not all elements of a situation are within direct control.

Resolves a problem, even if the problem did not arise as a consequence of the self's own actions.

Demonstrates an awareness of appropriate codes of practice and industry standards.

Demonstrates initiative and exercises personal responsibility.

Perseverance and resilience

Is able to remain energised and focused in the face of change or strenuous demands.

Understands the importance of working effectively in standard situations.   Assesses own stress levels and uses stress management techniques to tackle this.

Remains focused and productive in the face of standard work demands

Shows flexibility and strives to meet objectives when working under changing or unclear conditions

Knows how to work effectively in the face of ongoing or regular strenuous work demands.Remains effective and retains perspective in the face of difficult or demanding situations (pervasive ambiguity, frequent change, high workloads).

Views disruptions as challenges rather than threats.

European citizenship values

Is able to engage in the European integration project, and understands both the common values and diversity within Europe

Has knowledge of the European integration project and the European common values   Finds and understands the values expressed in Article 2 of the European Union, and the Charter of Fundamental Rights of the European Union

Understands the multi-cultural and socioeconomic dimensions of European societies   Is aware of the diversity and cultural and socio-economic identities in Europe, and how this contributes to a common European identity

Cultural understanding and respect

Is able to actively build a value system that is flexible and open to other cultures. Recognises and respects that there can be more ways to achieve a goal, and actively supports and promotes diversity.

Understands how own biases, personal perspectives and attitudes impact own behaviour.

Acknowledges how own cultural influences and biases can affect own attitudes, beliefs and feelings towards others.

Finds ways to minimise impact of own biases, personal perspectives and attitudes on actions and decisions.

Recognises the impact of culture on thinking, feeling and acting.

Seeks out opportunities to learn about cultures different from their own.

Adapts behaviours based on an understanding of cultural diversity.   Adapts behaviours according to the cultural context.

Facilitates open and transparent communication about cultural issues.

Supports the development of cultural competence among individuals and in groups.

Understands how respect for human rights is crucial for a democracy   Participates in democratic decision-making at either local, national or international level through political or social activism

Supports gender equality and social cohesion, and promotion of culture of peace and non-violence

Takes responsibility for the environment and supports sustainable lifestyles

Decision-making

Is able to solve problems by describing a situation, analysing the situation and choosing a successful path.

Knows how to create a good decision-making process   Defines the problem, challenge, or opportunity.

Generates an array of possible solutions or responses, including others when needed.

Evaluates the costs and benefits associated with each option.

Thinks critically about the different options, and assesses the consequences of each outcome before deciding.

Understands how to implement the chosen decision.   Selects a solution or response.

Implements the option chosen, convincing others if needed.

Assesses the impact of the decision and modifies the course of action if needed.

Understands how having a strong moral compass and a sense of integrity is crucial when making important decisions.   Bases their decisions on whether the resulting action will be for the broader benefit of others.

Shows compassion and respect for others in the decision-making process.

Planning and management

Is able to manage one's own and others' time efficiently and to organise, evaluate and adjust plans to reach goals, while ensuring optimal use of resources.

Knows how to manage one's own time Identifies important tasks and complete them in order of priority.

Plans the tasks needed to be done.

Finishes all tasks in the allotted timeframe.

Know how to manage a teams' time.   '

Plans other people's work according to a set timeframe.

Follows up the tasks, and reallocate resources to ensure successful completion.

Recognises what is required when organising own activities.   Organises own activities to accomplish pre-determined activities or procedures.

Monitors the quality and timeliness of own work and adjust accordingly.

Uses responsibly the resources at one's immediate disposal.

Understands how to organise a variety of activities.   Identifies varied resources needed.

Produces realistic, achievable and adjustable work plans (e.g., through breaking activities into smaller components to facilitate completion)

Organises a team to maximise skill and competence output.

Evaluates the extent to which objectives have been achieved.

Ideas and opportunities

Is able to use their imagination and abilities to identify opportunities for creating value.

Knows how to design value and to be innovative.

Creates (alone or with others) products or services that solve problems and needs.

Develops and delivers value in stages, launching with the core features of one's own (or the team's) idea and progressively adding more.

Describes how innovations diffuse in, and influence society, culture and the market.

Describes different levels of innovation (for example incremental, breakthrough or transformational) and their role in value-creating activities.

Knows how to think strategically

Defines long-term goals.

Matches short-term, mid-term and long-term goals to the vision for one's own (or team's) value-creating activity.

Explains the role of a vision statement for strategic planning.

Prepares a vision statement for value-creating activity that guides internal decision-making throughout the whole process of creating value.

Negotiation techniques

Is able to demonstrate good negotiation skills.

Knows effective negotiation techniques.

Collaborates with colleagues in order to survey and improve procedures, performance, new initiatives in the organising of work.

Balances awareness and empathy.

Knows how to manage expectations

Has a clear goal for the outcome of a negotiation

Maintains a balance between being a firm and collaborative negotiator to achieve the best possible results

Problem identification and solving

Is able to identify problems and potential solutions, and implement the most appropriate.

Knows how to identify advanced problems.

Identifies problems based on clear and fundamental factors.

Describes the essence of a problem.

Identifies the influencing factors of a problem.

Organises and processes the information identified.

Understands how to solve complex problems

Identifies links between related problems, while keeping distinct problems separate.

Identifies optimal or alternative solutions to complex problems, based on a careful consideration of the available and applicable approaches, with their advantages and disadvantages.

Implements the optimal solution after a careful consideration.

Understands the use of applicable techniques, methods of analysis, design and investigation, and their limitations in their field of study   Realises complex engineering designs

Conducts advanced investigations in their field of study

Applies relevant norms of engineering practice to solve complex problems

Understands how to apply the relevant material, equipment and tools, and their limitations in their field of study   Uses the appropriate material, equipment and tools for solving complex problems